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History of The Pennsylvania State College

HISTORY
OF
The Pennsylvania State
College

BY

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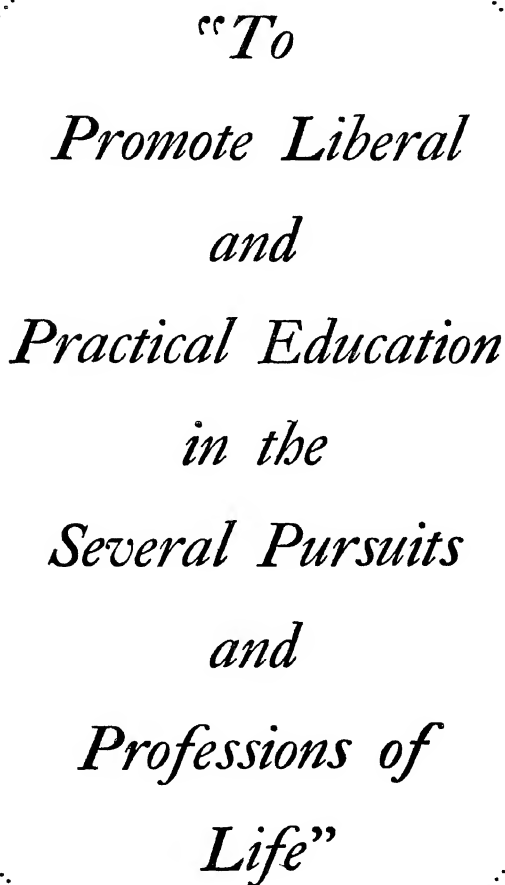


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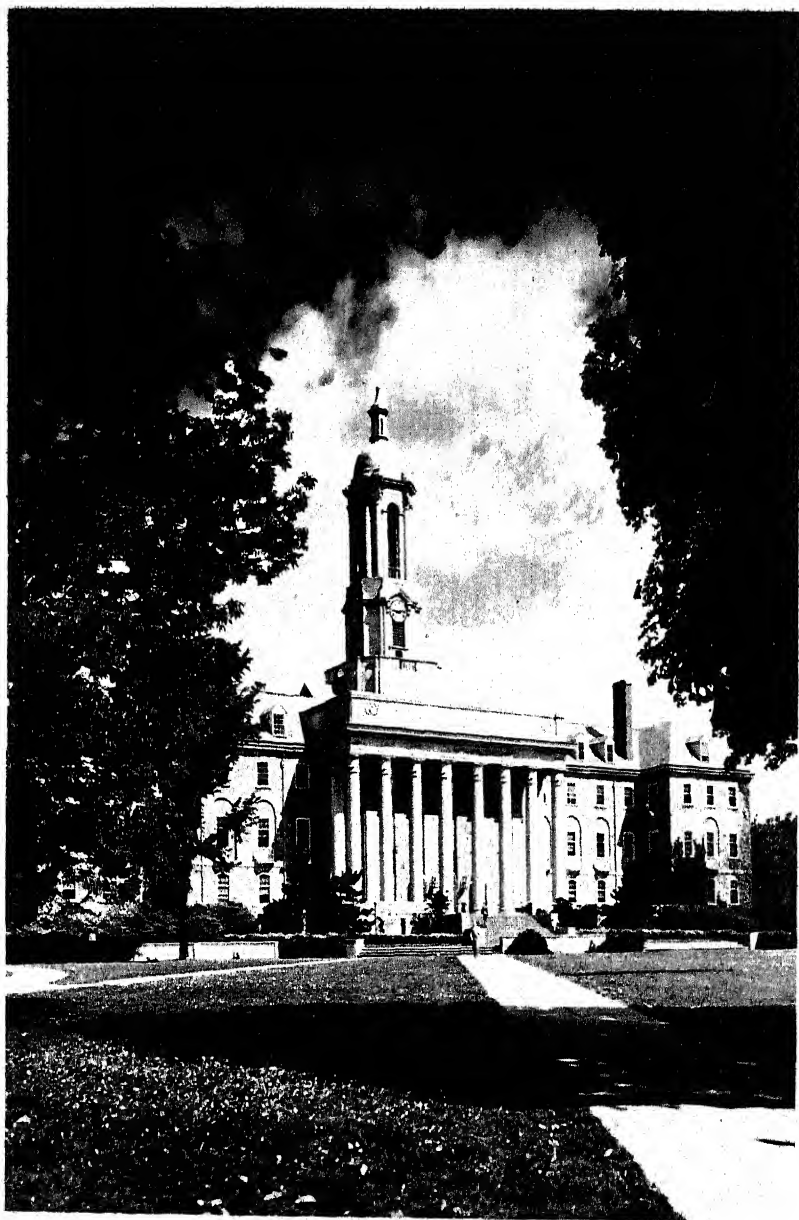
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*“To
Promote Liberal
and
Practical Education
in the
Several Pursuits
and
Professions of
Life”*



OLD MAIN
Built 1857-63; rebuilt 1929-30



P R E F A C E

FOR SOME YEARS the alumni of The Pennsylvania State College have been desirous of securing the publication of a history of their Alma Mater. In response to this demand, the Board of Trustees authorized the appointment of a committee to take the matter under advisement, with power to act. The committee consisted of Colonel J. H. M. Andrews, '98, chairman, Judge James Milholland, '11, Mr. Robert Hall Craig, '14, alumni members of the Board of Trustees; and Judge H. Walton Mitchell, '90, Mr. George R. Meek, '90, and Professor A. E. Martin, Head of the Department of History. These gentlemen selected the author to write the history of the College—a trust which he accepted, although not without some misgivings as to the problems involved in such an undertaking. The committee continued to serve in an advisory capacity as the work progressed, and passed upon it when completed. It must be said, however, that the author has been allowed the utmost freedom in writing the book. It follows, therefore, that the imperfections of the work, whether these be in content, interpretation, or form, are not chargeable to the committee

but to the author, who accepts full responsibility in the matter.

The text covers the history of The Pennsylvania State College from the beginning down to and including the regular session of 1941-42. Since this was the last year during which the operations of the institution were conducted in the normal manner before conditions were deranged by the entrance of the United States into the Second World War, it was deemed advisable to bring the story to a close at this point. Hence no attempt has been made to include in the narrative the happenings at the College in the immediate past.

The organization of the material is partly chronological and partly topical. Though not without its disadvantages, this method has its advantages also in that it enables the author not only to give a consecutive account of the rise and progress of the College, but to bring into bolder relief certain special factors featuring its development.

Inasmuch as the story has been told from the point of view of the development of an institution and of the units of which it is composed rather than from the biographical viewpoint, less attention has been paid to personalities than would otherwise have been the case. In general, only those are mentioned who are connected in an administrative capacity with the various Schools, departments, and other organized units of the College, or are

responsible for certain of its special activities. It is to be regretted that lack of space precludes the inclusion of even thumbnail sketches of the many who are worthy of recognition for their attainments as teachers, investigators, and authors.

Grateful acknowledgment is made to all those who have assisted the author in the preparation of this work. These include not only the members of the Advisory Committee, but certain trustees, administrative officers, faculty members, and alumni, who have been helpful in furnishing information of a kind not to be found in the formal documents of the College.

W. F. DUNAWAY

State College, Pa.

TABLE OF CHAPTERS

I	FOUNDING THE COLLEGE (1853-1859)	page	I
II	PROGRESS UNDER DIFFICULTIES (1859-1864)		31
III	ERA OF DRIFTING AND EXPERIMENT (1865-1882)		58
IV	THE COLLEGE FALLS ON EVIL DAYS (1879-1882)		94
V	THE FORWARD MOVEMENT BEGINS (1882-1892)		III
VI	THE FORWARD MOVEMENT GATHERS MOMENTUM (1892-1907)		138
VII	EARLY STUDENT LIFE AND CUSTOMS		171
VIII	POPULARIZATION OF THE COLLEGE (1908-1920)		195
IX	GROWTH TEMPERED BY OBSTACLES (1921-1926)		219
X	THE COLLEGE AT FLOOD TIDE (1926 —)		234
XI	THE TECHNICAL SCHOOLS		266
XII	THE TECHNICAL SCHOOLS (<i>continued</i>)		296
XIII	THE NON-TECHNICAL SCHOOLS		323
XIV	INDEPENDENT DEPARTMENTS AND ADMINISTRATIVE UNITS		356
XV	THE EXTENSION SERVICES		391
XVI	LATER STUDENT LIFE AND CUSTOMS		416
XVII	PHYSICAL TRAINING AND ATHLETICS		445
XVIII	THE COLLEGE AND THE COMMONWEALTH		471
XIX	CONCLUSION		483
	BIBLIOGRAPHICAL NOTE		494
	APPENDICES		497
	INDEX		521

LIST OF THE PLATES

OLD MAIN	facing page	vii
THE BEGINNING		22
EVAN PUGH		32
THE FIRST GRADUATING CLASS, 1861		38
EARLY PRESIDENTS OF THE COLLEGE		58
MOUNT NITTANY		90
GEORGE WASHINGTON ATHERTON		112
PRESIDENT ATHERTON AND THE FACULTY, 1887		128
THE CAMPUS ABOUT 1895		148
THE CAMPUS, 1910		148
THE PRESIDENTS OF THE BOARD OF TRUSTEES		168
EDWIN EARLE SPARKS		196
OLD MAIN, 1921		210
JOHN MARTIN THOMAS		220
RALPH DORN HETZEL		234
WATTS AND IRVIN HALLS IN THE MEN'S QUADRANGLE		246
THE MALL		254
FREAR LABORATORIES		282
THE MAIN ENGINEERING BUILDING		294
THE PHYSICS BUILDING		308
THE MINERAL INDUSTRIES BUILDING		320

SPARKS BUILDING	334
BURROWES BUILDING	338
THE HOME ECONOMICS BUILDING	342
THE RECREATION BUILDING	348
THE LIBRARY	360
THE RESERVE OFFICERS' TRAINING CORPS	364
FRANCES ATHERTON HALL	388
THE MAIN GATE	418
THE NITTANY LION	440
THE FIRST VARSITY FOOTBALL TEAM	448
COMMENCEMENT, JUNE 1941	476
MURAL IN OLD MAIN	490
THE CAMPUS	540

History of The Pennsylvania State College

CHAPTER ONE

FOUNDING THE COLLEGE

1853 - 1859

THE HISTORY of The Pennsylvania State College is that of a land-grant institution. It was founded, however, some years before the Morrill Act was passed, being the outgrowth of a revolutionary movement in education which had long been agitating the minds of many thoughtful people, though not assuming definite form until the eighteen-fifties. Its history is part of the larger story of the democratization of higher learning — of the movement for a more practical type of education than that furnished by the old-time classical college, with its excessive emphasis on the study of Greek and Latin and its neglect of the applications of science to daily life.

There prevailed among certain elements of the population, including some public-spirited men of education and standing, the idea that there was a need for a new type of education different from that to be found in the classical colleges of the time. These institutions were thought to promote an aristocracy of learning adapted to the requirements of the learned professions of law, medicine, and theology, but not to the needs of the industrial classes. Hence there arose a demand for people's colleges, or "industrial colleges," to train students who did not expect to enter the learned professions in such a way as to fit them for the pursuits in which they were to en-

gage. The new industrial movement in the State and nation was accompanied by a rising demand for a type of education adapted to the changed economic conditions; but the existing colleges and universities, ignoring this demand, remained consistently conservative. To meet this situation it was necessary to found new institutions motivated by radically different concepts of education and serving a different constituency. It was felt that the emphasis should be changed from the classics to the natural and physical sciences, or at least that the latter should be recognized as no less important and should be given equal rank in the curriculum. This concept led to a new movement in technical training and vocational education, aiming not only to democratize higher education but also to broaden its scope. It was a revolt against existing educational standards, and was to go far toward revolutionizing those standards in harmony with the new political, economic, and social democracy then in process of developing.

By reason of its emphasis on political and social democracy, the Jacksonian epoch had prepared the way for the advancement of the common man along these lines, but it yet remained to liberalize the educational system. Some progress had been made, to be sure, in providing elementary and secondary education for the masses of the people, but there had been no corresponding development in higher education. Hence educational reform was but a part of the general movement toward improving the lot of the common man. The rapid expansion of the industries was bound to give rise to a demand for increased technical training as a means of furnishing competent leaders to direct them efficiently, while the growing class consciousness of the farm and labor classes was no less certain to make itself felt in a demand for vocational education. As always with reform movements, antagonism might be expected from those enjoying the fruits of the existing

order of things. The classical colleges, entrenched behind the bulwarks of tradition, would naturally be inclined to look askance at the new movement rather than to extend to it a helping hand. They underestimated its significance, however, and eventually were forced to go along with it to an extent undreamed of at the time it appeared.

The Federal solution of the problem was the Morrill Act of 1862. This act, which was the culmination of the movement for agricultural and technical education, led to the establishment of land-grant colleges and universities. The land-grant institutions, founded at a time when higher learning leaned heavily to the classics, have played a great role in the democratization of education. Inasmuch as agriculture was by far the greatest economic interest of the population when the land-grant colleges were established, it followed naturally that the beginnings of these institutions were essentially agricultural. It was also but natural that their scope should be broadened later when other economic interests came to equal or to surpass agriculture in the number of workers engaged in them. In Pennsylvania, as in the other states, when the movement had been crystallized in national legislation, it was expanded to include the mechanic arts "in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life."

The way in which the farmers of the eighteen-fifties sought to express their views and to enforce their demands was to organize local and county agricultural societies, of which there were 941 in the country in 1862. State-wide agricultural societies were also founded, and in 1852 the United States Agricultural Society was organized, with delegates from twenty-three states and territories. This movement was led by the more intelligent and progressive farmers, many of whom were graduates of classical colleges. It was promoted

through the agency of meetings, fairs, correspondence, publications, and articles in the press, voicing the needs of agriculture and demanding greater consideration for it at the hands of the State Legislature and of the National Congress. Hitherto, the local and county agricultural societies had been made up of gentlemen farmers constituting a small circle, but now they became popularized with a greatly extended membership.

Out of the background described above emerged The Farmers' High School of Pennsylvania, which was later to become The Agricultural College of Pennsylvania, and eventually The Pennsylvania State College, the name of the institution changing as its aims and scope expanded. Founded primarily to serve the agricultural interests, it was destined to outgrow its swaddling clothes and to become an educational giant serving all the interests of the Commonwealth.

The Farmers' High School of Pennsylvania originated through the efforts of the Pennsylvania State Agricultural Society. This society was organized at a meeting held at Harrisburg on January 21, 1851, Frederick Watts being elected chairman and A. L. Elwyn secretary for the ensuing year. The first annual meeting of this organization was on January 20, 1852, at which time the same officers were re-elected. Meanwhile, the society had held a great fair in October 1852, which lasted for three days and was attended by about 20,000 people; enthusiasm was running high. At the second annual meeting of the society, held in Harrisburg on January 18, 1853, a committee was appointed to inquire into the expediency of establishing a State Agricultural School to be called "The Farmers' High School of Pennsylvania." The committee brought in a report favorable to the project and recommended that a general convention, composed of delegates from all parts of the State, should meet

at Harrisburg to consider the proposal. Whereupon it was resolved that the convention meet on March 8, 1853, "to adopt measures for the establishment of an Agricultural Institution to be styled The Farmers' High School of Pennsylvania, with a model farm attached thereto." The delegates were to be chosen by the agricultural societies, where such existed, and in other districts by the friends of agricultural education.

At the appointed time the convention assembled in the Senate Chamber at the Capitol, with representatives present from thirty-six counties. John Strohm, chairman of the gathering, appointed an able committee, headed by Judge Frederick Watts, "to prepare business for the action of the convention." The committee took itself seriously and brought in an elaborate report, the details of which had no doubt been considered carefully beforehand, especially in conversations between Judge Watts and H. N. McAllister, who had long been in favor of such a project. The report, which went into such specific details as title, location, land, organization, instructors, students, buildings, and probable resources, was received with acclaim by the delegates present, who adopted it "with unparalleled unanimity" and proceeded to recommend the establishment of a school for the education of farmers. A committee was appointed to take steps to secure a charter for the proposed institution. The movement for the advancement of agricultural education enlisted the cordial support of Governor William Bigler, who commended it in several messages to the Legislature.

The committee appointed to secure the enactment of a law to carry out the wishes of the convention applied to the Legislature for an Act of Incorporation, which was granted and was approved by the governor on April 13, 1854. The Charter of 1854 provided for the founding of an institution to

be styled "The Farmers' High School of Pennsylvania." Its control was lodged in a board of trustees composed of the presidents of the county agricultural societies, and the president and vice-president of the State Agricultural Society. It further provided for an elementary course of instruction, such as was deemed suitable for a farmer, combined with instruction in practical agriculture; for student labor on the school farm; and for authorization of the expenditure by the State Agricultural Society of \$10,000 of its funds for the purposes set forth in the act. The group of sixty trustees contemplated by the charter was empowered to organize the school and to put it into operation. The act was defective chiefly in its provision for the control of the institution by an unwieldy body of trustees, whose attempts to organize the school under the charter came to nought because of the failure to secure the required quorum of thirteen.

Nevertheless, a few of the trustees named in the act met at Harrisburg on June 13, 1854, and, in the absence of a quorum, appointed Frederick Watts, James Gowen, and John Strohm a committee to report a plan of organization at the next meeting of the Board to be held the following month. At this adjourned meeting, July 13, 1854, only five members were present, and the committee appointed at the previous meeting reported that it was useless to attempt to organize under the existing charter. They recommended that the Board should consist of thirteen members, of whom four should be ex officio members and nine should be elected. The committee stated further that the charter was defective not only in providing for too large a body of trustees, but also in that no appropriation had been made by the Legislature for carrying out its provisions. It was then decided to refer the report to Frederick Watts, George W. Woodward, and A. L. Elwyn, with instructions to address the people of the State

upon the subject and to apply to the next Legislature to amend the charter as indicated in the report. The committee was further directed to consider the question of the most advantageous location of the institution and to invite proposals from all parts of the State for its location. In compliance with these instructions, the committee published an address, under date of July 21, 1854, setting forth the desirability of the project and soliciting proposals offering a site.

The interest of the State Agricultural Society in the proposed institution continued unabated. At its fourth annual meeting in January 1855, it passed a resolution declaring its abiding interest in The Farmers' High School of Pennsylvania and praying the Legislature, then in session, to amend the charter in such manner as would ensure its establishment. At this meeting a communication was received from James Miles, of Erie County, offering two hundred acres as a site for the school. This offer, the first of its kind, was gratefully received as an evidence of the growing interest taken in the project throughout the State. In the following month the Legislature repealed the Act of Incorporation of 1854 and passed a bill granting a new charter, which was approved by Governor Pollock February 22, 1855.

The Charter of 1855, with which the formal history of The Pennsylvania State College may be said to have begun, and under which the first Board of Trustees was organized, provided for thirteen trustees, of whom four were ex officio members and the remaining nine were named in the charter. The ex officio members were the Governor, the Secretary of the Commonwealth, the president of the Pennsylvania State Agricultural Society, and the principal of the institution. The other nine members named in the charter were Alfred L. Elwyn, Algernon S. Roberts, H. N. McAllister, R. C. Walker, James Miles, John Strohm, A. O. Hiester,

William Jessup, and Frederick Watts; seven members constituted a quorum. It was provided that at the first meeting of the Trustees the nine who were not *ex officio* members should be divided into three classes, to serve one, two, and three years, respectively, so that the terms of three members should expire annually. Thereafter, an election of Trustees was to be held at the institution annually, such election to be determined "by the votes of the members of the Executive Committee of the Pennsylvania State Agricultural Society, and the votes of three representatives duly chosen by each County Agricultural Society . . . which shall have been organized at least three months preceding the time of election." On the second Thursday in June following the passage of the act, the Trustees were to meet in Harrisburg and proceed to organize the institution, to select an eligible site for its location, and to purchase or obtain by gift a tract of land containing at least two hundred acres and not exceeding two thousand acres. The Trustees were authorized to elect a principal of the school who should be a man of scientific attainments combined with teaching ability, and "a good practical farmer"; and to appoint such other professors as might be deemed necessary. The students were to be required to perform labor on the farm at such times and seasons as the trustees might prescribe; they were to be instructed in all things necessary to be known by a farmer, "it being the design and intention of this act to establish an Institution in which youth may be educated so as to fit them for the education of a farmer." Provision was made for the annual election of a treasurer; and the Pennsylvania State Agricultural Society, to whom an annual report was to be made, was authorized to appropriate out of its funds a sum not exceeding ten thousand dollars to The Farmers' High School.

The terms of this charter are clear and unmistakable.

Largely the creation of Frederick Watts and H. N. McAllister, it was framed in the interest of the farmers of the State and reflected the views of their leaders. Like the institution which it called into being, it was the child of the Pennsylvania State Agricultural Society. The primary purpose behind the founding of The Farmers' High School was, as the charter declared it to be, to train students in the science and practice of agriculture. It was never a purely private institution, since from the beginning certain State officers were ex officio members of its Board of Trustees. Furthermore, it was required to make an annual report to the Pennsylvania State Agricultural Society, which in turn was required by law to incorporate this in its own annual report to the Legislature. Its public character was to be more fully confirmed later through laws enacted by the General Assembly and by the National Congress.

The thirteen men composing the first Board of Trustees were representative citizens of the Commonwealth, outstanding in their respective communities and successful in their several callings. Among them were graduates of Harvard, Yale, Princeton, the University of Pennsylvania, and other institutions. Although only three of them were primarily farmers, all of them were interested in the promotion of agriculture and in the movement then under way to found an institution especially designed to train farmers. The ex officio members included State officials, but the others were lawyers, judges, and men of large business interests. Governor Pollock took more than a merely official interest in the project, presiding at several meetings and serving on committees. Secretary of the Commonwealth Andrew G. Curtin was ex officio Superintendent of Common Schools, and was very active in promoting the claims of his home county of Centre for the site of the school. James Gowen, President of the

Pennsylvania State Agricultural Society, was interested in everything bearing on the advancement of agriculture. John Strohm represented his county of Lancaster in the Legislature and later his district in Congress, and presided over the Convention of 1853 which recommended the founding of The Farmers' High School. A. L. Roberts and Robert C. Walker were substantial business men with a fondness for agriculture. Dr. A. L. Elwyn, a Harvard graduate, preferred the occupation of a gentleman farmer to practicing medicine, and was especially interested in the application of science to agriculture. William Jessup, a Yale graduate, was a lawyer and judge upon whom Hamilton College conferred the degree of LL.D. James Miles was a man of wide interests, being trained in both law and business, and was much interested in land development projects in his home county of Erie. A. O. Hiester, though a lawyer and judge, was also interested in business, banking, and railways, and was a scientific farmer and fruit grower.

The two outstanding members of the Board, however, were Frederick Watts and Hugh N. McAllister, and it is hardly too much to say that but for their intelligent and sacrificial labors the school would never have surmounted the obstacles of its early years. These two men, along with President Pugh, were chiefly responsible for keeping the institution alive when its dissolution seemed imminent. More than any other man, perhaps, Judge Watts deserves the title of founder of The Pennsylvania State College. One of the founders of the Pennsylvania State Agricultural Society, he was its president at the time when it inaugurated the movement to establish The Farmers' High School. A graduate of Dickinson College, he was admitted to the bar in 1824, and in 1849 was commissioned judge of the ninth judicial district of Pennsylvania. He organized the gas and water

companies of his home town of Carlisle, and for twenty-six years was president of the Cumberland Valley Railroad. The charters of 1854 and 1855 were mainly his work, and he gave freely of his time, energy, and money to promote the welfare of the College.

Hugh Nelson McAllister, a graduate of Jefferson College and a law student at Dickinson College, practiced law at Bellefonte for thirty-eight years. Three times he was offered a judicial post but declined acceptance, preferring to continue as a lawyer, business man, and farmer. As the local trustee of the College, he devoted an enormous amount of time and effort to furthering its interests, serving faithfully in this capacity from its origin until his death in 1873. He kept in close touch with all the details of the business of the school, and was a wise counsellor whose advice was freely sought and relied upon by his fellow trustees and by the presidents of the institution.

Others who figured prominently in the early history of the College and might well be numbered among the founding fathers were General James Irvin, William G. Waring, Judge James T. Hale, Moses Thompson, and Edward C. Humes, all of whom were residents of Centre County. General Irvin, whose home was in Bellefonte, accumulated a considerable fortune as an owner of lands, mills, and iron furnaces. A prominent member of the Whig party, he was elected to Congress; and in 1840 was the Whig candidate for governor of Pennsylvania, but was defeated by Francis R. Shunk, the Democratic candidate. He will always be remembered as the man who gave to The Farmers' High School the land for its original buildings and farm. Judge James T. Hale, also of Bellefonte, represented his district in Congress from 1859 to 1865, and was active in securing the passage of the Morrill Act. In 1859 he was elected a trustee of the College and so

remained till his death in 1865, rendering notable service in obtaining favorable legislation for the school at the hands of the General Assembly. Moses Thompson, a substantial citizen of Centre County and its largest landholder, with other large business interests, served as secretary of the Board of Trustees for some years, and was treasurer of the College from 1867 to 1874. Edward C. Humes, the first treasurer of the institution, built up at Bellefonte a strong bank, through which he was able to render great assistance to the struggling school in times of financial stress.

In pursuance of the terms of the charter, the Board of Trustees met at the office of the State Agricultural Society in Harrisburg on June 14, 1855, to effect an organization and to take steps toward securing a site for the school. Before them were the offers of James Miles of Erie County, James Irvin of Centre County, and Elias Baker of Blair County, each of whom agreed to donate 200 acres of land for a site on condition that the institution should be located in his county. Also before them were the offers of James Bailey to sell 2000 acres in Perry County and of George A. Bayard to sell 600 acres in Allegheny County. It was decided to appoint a committee, consisting of Governor Pollock, Frederick Watts, and Alfred L. Elwyn, to view the sites and to report their findings to the next meeting of the Board.

When the Board met on July 17, 1855, the committee brought in a detailed report, setting forth that they had visited the several sites offered for the location of the school and had received an additional offer of 200 acres from William H. Easton of Franklin County. Although they regarded any of the sites offered as suitable, they were of the opinion that, in view of the importance of the matter and of the neglect to advertise it sufficiently hitherto, no site should be selected at this time. Whereupon the committee was

continued, with directions to view such other sites as might be offered and to report at the next meeting of the Board. In order to bring the question of location more fully to the attention of the public, it was ordered that the proceedings of the meeting be published in the leading newspapers throughout the State. At this juncture Simon Cameron came forward with a proposition to raise \$10,000 for a site in Dauphin County; and G. W. Patten and J. Morrow, with an offer to raise \$10,000 to purchase an additional 200 acres, adjoining that offered by Colonel Baker, provided the school were located in Blair County. The Trustees were further encouraged by the announcement that the executive committee of the State Agricultural Society, then in session, had voted to appropriate \$10,000 to The Farmers' High School of Pennsylvania. Before adjourning, the Board placed on record its determination to put the school into operation as speedily as possible, and to that end appointed a committee, consisting of A. L. Elwyn, John Strohm, and William Jessup, to select a principal.

At the third meeting of the Board, held September 12, 1855, Frederick Watts, chairman of the committee to view sites for the school, reported that the committee had examined the land offered by William H. Easton of Franklin County; and then submitted a letter from David Blair, of Huntingdon County, offering to donate 200 acres of land in that county on condition that the school should be located there. He submitted also the further proposition of General Irvin to lease an additional 200 acres adjoining the land previously offered, with the option of buying it at any time within five years. In support of the Centre County offer, there was presented to the Board a guarantee, signed by H. N. McAllister, James Irvin, and Andrew G. Curtin, that \$10,000 would be raised for the school if the offer of General

Irvin were accepted. Not to be outdone in generosity, Mr. McFarlane, in behalf of the citizens of Blair County, offered, in addition to the 200 acres donated by Colonel Baker, to guarantee an additional 200 acres adjoining Baker's land and to raise \$10,000 for the institution if it should be located in Blair County. Each of these proposals had its supporters on the Board and each was voted on in turn, but it was decided to accept the offer of General Irvin, with its accompanying guarantee of \$10,000, and to locate the school in Centre County.

The selection of Centre County for the location of The Farmers' High School was due to the enterprise and influence of its prominent citizens like James Irvin, H. N. McAllister, Andrew G. Curtin, Moses Thompson, James T. Hale, William Waring, and others; to its central position; to the liberal offers of land and money; perhaps even to the natural beauty of the landscape. Nevertheless, the location, by reason of its inaccessibility and of the lack of water on the farm on which its buildings were to be erected, was long the occasion of criticism by the foes of the institution, and even of doubts on the part of its friends. It was distant from any city, and there was no railroad in the vicinity; yet, according to Judge Watts, it possessed "the most essential advantages of soil, surface, exposure, healthfulness, and centrality." Although located in almost the exact geographical center of the State, it was, as President Sparks is credited with saying, "equally inaccessible from all parts of it." But its very isolation was thought by some to be desirable as removing the students from the distractions and temptations incident to city life. After all, in the minds of its founders, it was to be a school designed chiefly for farmers' sons; hence the logical place for it was well out in the country "far from the madding crowd." Perhaps its isolation contributed something

throughout the years to the development of a distinctive college spirit by throwing the students more largely upon their own resources, thereby binding them closer together in devotion to Alma Mater. Without it, Penn State would not have been Penn State, strong and self-reliant, ensconced in the midst of her picturesque surroundings and having a charm all her own.

Although the selection of a site for the institution was the principal business of this meeting of the Board, other matters were not neglected. A building committee, composed of Frederick Watts, H. N. McAllister, and James Miles, was appointed to act in concert with the Principal (when chosen) in making preparations for the erection of buildings for the school; and Moses Thompson, though not a Trustee, was invited to act with the committee. Dr. Elwyn, chairman of the committee appointed to select a Principal, reported the choice of Charles B. Trego for the position, whereupon the committee was instructed to employ Mr. Trego if possible, but in the event of his declination to seek some other suitable person.

While much remained to be done and the magnitude of the task was appalling, considerable progress had been made in the seven months elapsing since the securing of the charter, and the outlook seemed promising. The school had been duly chartered and christened, its site had been selected, its assets in hand and in prospect amounted to 200 acres in land and \$20,000 in cash, and behind it was an organized Board of Trustees composed of men of ability and public spirit pledged to carry out cherished educational ideals. Furthermore, it was backed by the State Agricultural Society and by a group-conscious body of farmers, who saw in it the hope and promise of a new day in the advancement of agriculture. The movement for the democratization of education and its

development along vocational lines was assuming concrete form in the establishment of an institution of learning which was to elevate agriculture, dignify labor, enrich and ennoble the life of the farmer, and contribute to the well-being of the Commonwealth.

Now that the initial steps had been taken in securing a charter, organizing the Board, and selecting a site for the school, the pressing need was for money to erect the buildings, to improve the farm, and to develop the physical plant preparatory to putting the school into operation. Obviously, this would require a considerable sum of money, which could not be raised without an appropriation from the Legislature; and to this end the Trustees now turned their attention. In anticipation of a legislative appropriation, and on the strength of the \$10,000 received from the State Agricultural Society and the \$10,000 pledged by the citizens of Centre County, together with expected contributions by the friends of the school, the Trustees went ahead with their plans as far as circumstances seemed to justify. The report of the committee appointed to locate the College buildings was approved, along with the general features of the plans for these. A building committee, consisting of Frederick Watts, H. N. McAllister, and James Miles, was appointed to let contracts. A. O. Hiester, H. N. McAllister, and Robert C. Walker were appointed a committee to solicit from the Legislature, then in session, an appropriation of \$50,000 in aid of The Farmers' High School, of which Edward C. Humes was appointed treasurer. It was also decided to purchase the additional 200 acres of land offered by General Irvin, thereby increasing the holdings of the school to 400 acres. Meanwhile, since the previous meeting of the Board, William G. Waring had been employed to lay out the plan of the grounds and to set out trees and shrubbery.

Considerable risk was involved in proceeding further until larger funds were in hand, but the building committee, taking counsel of their courage, entered into a contract with Messrs. Turner and Natcher to construct the main College building for the sum of \$55,000. Contracts were also let for a barn and a farm house, since there were no improvements on the land when it was secured from General Irvin. In the meantime, the school received from Elliott Cresson, a public-spirited citizen of Philádelphia, a legacy of \$5000.

Hitherto the Board of Trustees had held its meetings at the Office of the State Agricultural Society at Harrisburg, but on October 6, 1856, it met at the site of the College, the occasion being the first annual meeting of delegates for the election of trustees. A. L. Elwyn and A. O. Hiester were re-elected, but J. W. K. Snodgrass was chosen to succeed Robert C. Walker, who apparently did not stand for re-election. The Board approved the contract with Turner and Natcher, and appointed Frederick Watts, H. N. McAllister, and John Strohm a committee to present the claims of the institution before the next Legislature. The committee accordingly prepared a bill calling for an appropriation of \$50,000 to The Farmers' High School, and urged it strongly upon the General Assembly at the ensuing session. The measure was placed in the hands of Colonel Andrew Gregg, Senator from Centre County, who championed it ably, being assisted by James T. Hale and the committee from the Trustees. It was thoroughly canvassed at Harrisburg, and finally became a law on May 20, 1857. The bill provided for the immediate payment of \$25,000 to The Farmers' High School, in consideration of the sum of \$25,000 already secured from the State Agricultural Society, from the citizens of Centre County, and from the legacy of Elliott Cresson; and appropriated an additional \$25,000 on condition that a like sum be raised by the friends of the school through

subscriptions. It also changed the time of meeting of delegates for election of Trustees from the first Monday in October to the first Wednesday in September of each year.

In view of the fact that the Legislature had come to their aid by passing the appropriation bill, the Trustees and friends of the school now felt more confident of the success of the enterprise. True, only \$25,000 of the appropriation was immediately available, but they had high hopes of raising \$25,000 by subscriptions; and, should they succeed in this, they would redeem the additional \$25,000 from the Legislature and would then have an aggregate sum of \$100,000 available for carrying out their plans. Their contracts for the main building and for several other buildings involved an expenditure of about \$60,000; but their other obligations, except for the outlay of \$12,000 for an additional 200 acres of land, were small. It thus appeared that they would have a tidy surplus of some \$25,000 with which to erect and equip necessary out-buildings and to put the farm and the campus in proper order. It was not quite that simple, however, since it was by no means certain that they could raise \$25,000 by subscription; and without it, additional help from the Legislature would not be forthcoming. Nevertheless, there was considerable confidence in the outcome, and the Trustees went ahead with their plans.

When enthusiasm was running high on account of the legislative appropriation, the second annual meeting of delegates for the election of Trustees was held at the Farm School on September 2, 1857. Representatives from twenty counties of the State were present, besides a number of distinguished guests and friends of the school. Since the construction of the main building had not so far advanced as to provide a meeting place and there were no hotel accommodations, the barn floor was used as a place of assembly, and the good people of

the neighborhood exerted themselves to provide a dinner for the two hundred guests in attendance. Following the dinner, the meeting was opened by the Honorable James T. Hale, who called upon Judge Watts, President of the Board of Trustees, to address the gathering. This he did in an eloquent speech setting forth the objectives of the school and the advantages it was expected to confer upon the farmers of the State, and discussing the tentative plans of the Board with regard to courses of study, cost of tuition, and other details of the institution. After describing the financial condition of the school as it then stood, he pointed out that an additional \$50,000 was required to complete the building and to open the institution; and that this was provided for if half the amount was subscribed by individuals. Pledging himself to give \$1000 of this sum, he took his seat amid the applause of the audience. Others arose and pledged sums of from \$500 to \$1000, either as personal contributions or as amounts they would undertake to raise in their home counties. It was thought that about \$10,000 could be counted upon as a result of this meeting, and it was confidently expected that the remaining \$15,000 could be secured with comparative ease by presenting the claims of the school throughout the length and breadth of the Commonwealth.

Had all these pledges been paid and additional funds collected, the institution would have been spared the financial embarrassment which promptly overtook it; but such was not the case. The financial panic of 1857, accompanied by the failure of crops in some counties, rendered conditions unfavorable for collecting subscriptions already made, and especially for securing new ones. Enthusiasm for the enterprise began to cool, subscriptions came in slowly, the funds in hand were rapidly becoming exhausted, and one of the trustees resigned from pessimism over the prospect. At two successive meetings

of the Board a quorum was not present. Meanwhile, the work on the building was progressing and, since the members of the building committee were being called upon to employ their personal credit to supply the incessant demands upon the treasury, there was urgent need for additional revenue. To add to the seriousness of the situation, it was becoming apparent that the contractors would be unable to carry out their agreement. They had greatly underestimated the cost of constructing so imposing a building, having contracted to erect it for \$55,000, whereas it was now evident that it would cost approximately \$100,000. President Pugh later declared that the work would have been suspended at this time "had it not been for the indomitable perseverance and unremitting labor of the business committee, and more especially of Mr. McAllister, the local trustee, in looking after its affairs." In the emergency, Mr. McAllister not only made at his own expense a canvass of Centre and some other counties, raising considerable additional funds, but made a personal contribution of \$500 and advanced several thousand dollars from his own pocket to pay pressing bills due for work on the building.

At a meeting of the Board in June 1858, a committee, of which Judge Watts was chairman, was appointed to publish an address to the people of Pennsylvania setting forth the aims of the school, the steps taken thus far to secure lands and buildings, and the need for additional financial aid. It was hoped by this means to rally anew the friends of agriculture throughout the State to a special effort in completing the collection of the \$25,000 needed to make available the conditional appropriation of the Legislature, without which it was thought that work on the building must stop and the school could not go into operation. To tide over the immediate difficulties, it was decided to raise \$5000 upon the personal note of several members of the Board, and to appoint suitable

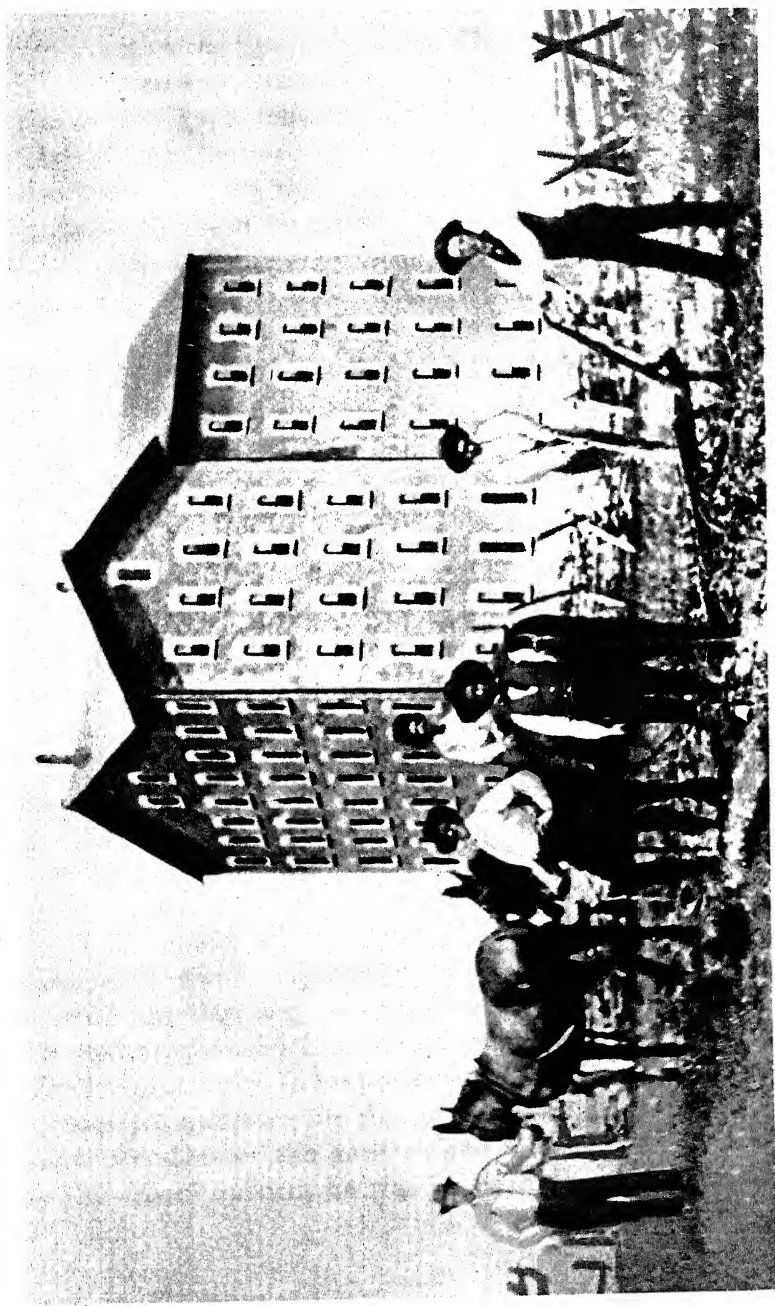
persons to solicit subscriptions from the people. Despite the embarrassments of the situation, the Board went courageously ahead. They fixed the terms of admission of pupils, settled upon the courses of instruction, and agreed upon the general plan of operation of the school—all upon the assumption that somehow the necessary funds would be forthcoming and that the school would be opened. It was determined to erect one-third of the main building, leaving the remaining two-thirds with only the basement walls completed.

The seeming hopelessness of the enterprise was such that many people, even among its friends, thought it would never succeed. Critics arose to condemn the policy of the Board in projecting a school of college grade, and in erecting a building of such pretentious proportions. It was urged that a small school, modestly housed and with an elementary course of instruction, was all that should have been undertaken, especially as the contractors had failed and the funds in hand were practically exhausted. The contractors had indeed failed, and the work of preparing for the opening of school devolved upon the building committee. To meet the immediate demands, five of the Trustees made personal subscriptions of \$500 each, and the President of the Board was authorized to negotiate a loan of \$20,000 by a mortgage upon the unincumbered property of the institution. The work on the main building was now hurried forward, and announcement was made that the school would be opened February 16, 1859. In the intervening months the west wing of the main building was completed and made ready for occupancy, a faculty was employed, and preparations were made to receive the students upon their arrival.

When the appointed day arrived, the school was opened as planned, though under very unfavorable circumstances. Only one wing of the building was in use, and this contained no

chapel, no dining room, and no kitchen; hence it was necessary to make use of temporary buildings for cooking and eating. A long, low shanty, which had been used by the workmen constructing the building, was converted into a dining room by knocking out the partitions and whitewashing it, and an adjoining shanty was used for a kitchen. The shanties thus requisitioned to meet an emergency leaked in wet weather and could not be kept warm when the weather was cold. No part of the main building was suitable for laboratories, museums, or even for recitation rooms. All about the premises were unsightly piles of lumber, brick, and stone to be used for further work on the building, "presenting a most forlorn aspect to the students, who first entered the building through the well-tramped mud of the breaking up of the winter frosts." On the east side of the structure was a large quarry hole from which much of the stone had been obtained. No baths or toilet accommodations were available within the building, and water was obtained from a cistern in the north curtain area and from a spring near the east entrance to the campus. A driveway led from the main highway (now College Avenue) to the barn; this was fenced, and a gate and stile were placed at the willow tree marking the place from which the driveway diverged to the college entrance. That part of the campus between the building and the driveway was cleared of stone and rubbish, permitting some trees and shrubs to be planted to relieve the bleak aspect of the surroundings.

The building had only one entrance, which had no porch or steps, but a strong plank with cleats nailed across it made a sort of "chicken stairs" up which the students clambered carrying their heavy trunks. No janitors were present to render assistance, though some fellow student might lend a helping hand. There was to be no coddling of the students, who found themselves in a Spartan environment and were ex-



THE BEGINNING

pected to practice the Spartan virtues. Once inside the building, an open stairway with a hand rail led to the fifth floor; later, the hand rail was removed, partitions were constructed, and it became an enclosed stairway. At each floor a heavy door about three inches thick was placed for the purpose of locking the students in at night in order to keep them from prowling about the building from floor to floor—visiting instead of studying their lessons. Since there was no fire escape, this was likely to prove a hazardous procedure, but the plan was never actually carried out, the parents of some of the boys protesting against it. Since there was as yet no village adjoining the campus, all the professors (except one) and all the students roomed and boarded in the main building. Other structures were a large and commodious barn (designed by Judge Watts), a laundry, and a frame dwelling house occupied by Professor Whitman. Hitherto, the nearest post office had been at Boalsburg, some four miles away, but now a new post office was established, under the name of "Farm School, Pennsylvania," for the convenience of the college community.

When The Farmers' High School opened its doors for the admission of students, the faculty consisted of William G. Waring, J. S. Whitman, R. C. Allison, and Samuel Baird. No president had as yet been elected, but Professor Waring served as acting principal until President Pugh arrived on the scene. In 1856, Waring, who was a practical farmer and nurseryman, had been employed to lay out plans for the grounds and to superintend the farming operations. Although not college bred, he had taught school for some years, serving as principal of Bellefonte Academy. In his present position he was not only acting principal but bore the title of professor of horticulture and superintendent of the gardens and nursery department. Before the school opened, he was busily engaged for several

years in looking after the College farm, setting out trees and shrubs, and planting an orchard and vineyard. It appears that he had difficulty in getting along with the faculty and students, and when he resigned in 1860 his resignation was accepted. He will always be remembered as the pioneer horticulturist of the College, and the one to whom the original planting of the campus was due.

J. S. Whitman was professor of natural science—a broad term including botany, physiology, zoology, and geology, though his principal subject was botany. From 1864 to 1866 he was vice-president and professor of botany, physiology, and horticulture. Resigning in 1866, he became professor of natural science in Baker University, Kansas. It is recorded of him that he was fond of taking the students on botanical expeditions in the neighboring mountains and valleys. He enjoys the distinction of being the first professor to have a residence on the campus. Professor R. C. Allison, a graduate of Amherst and of Union Theological Seminary, remained at the College two years, first as professor of English language and literature and then as professor of mathematics and natural philosophy. Resigning in 1860 to enter the Presbyterian ministry, he served churches in Pennsylvania and elsewhere. After teaching mathematics for a few months, Professor Samuel Baird resigned in May 1859, when the vacancy was filled by the appointment of Professor David Wilson. In the catalogue of 1859, Professor Wilson appears as professor of mathematics, astronomy and natural philosophy, and general superintendent of the agricultural department. Thereafter he was vice-president and professor of English language and literature, moral and intellectual philosophy, and superintendent of the agricultural department until his resignation in 1864. He enjoyed the confidence of President

Pugh, and was highly regarded by the students as a man and a teacher.

When school opened on February 16, 1859, sixty-nine students of the one hundred who had engaged places were in attendance. Others arrived later and 119 were enrolled during the session, though never more than a hundred were present at any one time. Some withdrew and several were expelled, since, as Dr. Pugh remarked sadly, "experience soon proved that this flock was not without its black sheep." According to the regulations adopted by the Board, no student under sixteen years of age could be admitted, and these, not to exceed 100, were to be admitted upon the recommendation of the officers of the County Agricultural Societies where such societies existed; and where there was none the Board should act as its judgment dictated. The number of students to be admitted from each county was apportioned on the basis of the number of taxable inhabitants in the county; thirty counties were represented the first year the school was in operation. Upon entering, they were examined and arranged according to their degree of advancement into two classes, called the third and fourth classes; one of which would graduate in three years, and the other in four years, from the date of entrance. Students were assigned to rooms by the simple expedient of dividing them into pairs, and one student in each pair drew from a box a card on which was the number of the room these two would occupy. Each student was required to do three hours' work on the farm daily, except on Saturdays and Sundays. The sum of \$100, paid in advance, was fixed as the charge for tuition, boarding, washing, fuel, and lights for the session, which began the middle of February and closed the middle of December in each year.

The original curriculum, not revised until 1866, provided for only one course of study. An examination of the early cata-

logues shows that, in the conscious attempt to get away from the classics and to provide what was believed to be a more practical type of education, the emphasis was on the sciences. The primary consideration was instruction in the theory and practice of agriculture, and the sciences were recognized as an essential part of such a study; but the "dead languages" had no bearing on agriculture, and hence were excluded. A course in English, however, was deemed practical and desirable, and provision was made for the study of grammar, rhetoric, and composition; and to this was added a certain amount of instruction in moral and intellectual philosophy. Much the larger part of the student's time, however, was devoted to the study of chemistry, practical agriculture, botany, horticulture, natural philosophy, zoology, and mathematics. The apparatus essential for effective instruction in these subjects was negligible. A library of miscellaneous books numbering about 2000 volumes was gathered from various sources, but the books were of little value and there were no regular library hours. Although the institution went by the name of The Farmers' High School, it should be remembered that from the beginning it was organized on a collegiate basis and was of collegiate grade. Of all the institutions of higher education in the United States, The Pennsylvania State College has been consistently the most modest; when it was a college it called itself a high school, and when it became a great university it continued to call itself a college. Such understatement is rare, if not without a parallel.

The Farmers' High School of Pennsylvania was now fairly launched, and, though inadequately manned and equipped, began its troubled voyage on the course charted for it by the founding fathers. It was a pioneer in industrial education, with a clearly defined aim and program; it was also an experiment, whose issue was problematical. In the minds of those

who projected it, however, there was no doubt as to the value of the undertaking and no hesitation in laying out its course. The views of the founders are by no means obscure, since they are set forth in addresses, pamphlets, memorials, and catalogues on many occasions. These ideals shaped the policies of the institution and determined the particular program that was adopted. By reason of his position, first as president of the Pennsylvania State Agricultural Society and later as president of the Board of Trustees of The Farmers' High School, Frederick Watts was the principal spokesman for the institution in the first years of its history. H. N. McAllister, whose views were similar to those of Judge Watts, was also very influential in shaping its course. President Pugh, coming upon the scene four years after the charter had been granted, worked in harmony with these two men, whose ideas he shared regarding the mission of the new school in the educational world of that day. An eloquent and forceful exponent of industrial education, he became its chief spokesman upon assuming the duties of the presidency.

The objectives of those who established The Farmers' High School were, in the first instance, those of the leaders of the Pennsylvania State Agricultural Society, which reflected the ideas of the more progressive farmers in the Commonwealth. They wanted something different from the type of education in vogue in the classical college of the day, and went about to secure it. They claimed that the literary colleges of the country, as then constituted, educated men "to a state of total unfitness not only for the pursuits of a farmer but as a companion for his parents, brothers, and sisters, with whom he is expected to spend his life." They wanted their sons to be better farmers, but not to be driven away from the farm into some profession for which they might have little aptitude and in which they would "be subjected to all the temptations of an

idle life." By way of contrast, The Farmers' High School proposed to afford a type of education suitable to the needs of the farmer by instructing him in the science and practice of farming. Furthermore, it was asserted that the classical colleges not only unfitted men to be farmers and weaned them away from the farm, but that the cost of attending such institutions was prohibitive to most farmers. Such cost was estimated at \$300 a year, whereas it was proposed to reduce this cost to about \$100 a year, inclusive of everything. In order to do this, however, the students would be required to assist in defraying the expense of their education by working on the farm, in the shops, and about the building. The hours devoted to manual labor would have the further advantage of affording regular exercise and thereby promoting the health of the students, to say nothing of preventing them from contracting "the mental disease of despising those who work with their hands." The scheme seemed absolutely fool-proof: while the student was being instructed in those branches of science which pertain to agriculture, he would also be engaged in practical farming, his health would be preserved, he would be taught to appreciate the dignity of labor, and he would go a long way toward paying his way through school. Finally, when he had finished his education, he would return to his home skilled in the art of farming, desirous of continuing in that occupation, and eager to apply the lessons he had learned. In addition to the advantages to be derived by the student from such a type of education, the school itself would be placed on a solid financial foundation by the manual labor provision. The profits of the labor of the students would go into the treasury of the institution and enable it to furnish higher education at a minimum cost; and the building, capable of accommodating more than three hundred students when completed, would soon be filled to capacity by reason of

the reasonable tuition rates. In the larger view, the College farm would be a great blessing to the farmers because of the experiments to be made in the introduction of new seeds, grains, roots, modes of culture, farm implements, and fertilizers—a process which would be too troublesome and expensive to be carried out by the individual farmer.

In all essential features the ideas of President Pugh were in accord with those of Watts, McAllister, and the other founders of the school regarding the importance of agriculture and the dignity of labor, but were broader in their scope. From his point of view an industrial college should meet the demands of industry in general, not merely those of agriculture. Hence he contemplated the eventual broadening of the curriculum to include courses in engineering and mining as soon as the resources of the institution permitted. He regarded agriculture as the most important of the industrial arts, and asserted that it required for its development scientific knowledge equal to that of any of these arts, but he did not conceive of an industrial college as an institution restricted to agriculture; it was to be something much more comprehensive than that. He endorsed the idea of combining the scientific study of agriculture in the classroom with its practice on the farm, believing this system to be desirable for the preservation of the health of students, for the maintenance of habits of industry, and for the reduction of the cost of tuition. There are some indications, however, that he was not so enthusiastic about the manual labor requirement as were the other founders of the school. Although he was well aware of the fact that it would take many years to bring it about, he had a prophetic vision of a great experimental institution, contributing through research to the development of all the industries of the State. For the present he was content to carry on in a small way until the school became more firmly

established, but he was full of plans of a more comprehensive character than those contemplated by the men around him. More than any other man connected with the College in its formative period, he grasped the significance of industrial education in all its fullness, and but few men of his time, wherever found, envisaged as clearly as he the astonishing development of the institution in its later years.

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*PROGRESS UNDER
DIFFICULTIES*

1859-1864

OCTOBER 26, 1859, was a day long to be remembered by the students of The Farmers' High School, for it was then that they caught their first glimpse of the new president about whom they had heard so much, but hitherto had not seen. So far as the weather was concerned, it was a gloomy day, since winter had set in prematurely with a snow that obscured the view of Mount Nittany in the distance. Coming up the avenue leading to the College was a buggy driven by H. N. McAllister, beside whom sat a distinguished looking stranger. The news spread quickly that the president had arrived, and an air of excitement prevailed the building. Everybody was anxious to see him and hear him, partly from curiosity, but more from the general feeling that here was the man who was to save the school from threatened failure, for things had not been going well at The Farmers' High School and there was need for a strong and skillful hand at the helm. The students had their opportunity at the dinner hour, when they stood at attention in the old shanty dining room, awaiting his entrance. As Dr. Pugh passed up the room to the seat reserved for him at the head of the table, he was greeted with such a hearty outburst of welcome as to leave no doubt of the approval with which he was regarded. Assembled in the chapel that evening, they heard him deliver a short but pithy

address, which served to strengthen still further the favorable impression they had already formed of him.

President Evan Pugh, who was only thirty-one years of age when assuming the duties of his office, was a man of large ability and of great force of character. Physically powerful and measuring nearly six feet two inches in height, with a dignified bearing and an intellectual cast of countenance, he presented a striking appearance and looked every inch a college president. His mental processes were of a high order as evidenced by his scholastic attainments, his scientific investigations, his published addresses, his penetrating insight into the necessities of the situation, and his farsightedness in anticipating the demands and possibilities of the future. The son of a farmer-blacksmith who left him an orphan at the age of twelve, his opportunities for advancement were limited and the way was hard; but, being ambitious and energetic, he surmounted all obstacles with resolute courage. He learned the trade of a blacksmith, worked on the farm, taught school, and attended the Manual Labor Academy at Whitestown, New York. Yet he still dreamed of better things and, upon coming into the exclusive possession of his father's estate, he sold it for \$2800 and carried out a cherished purpose of going abroad for study.

Thus it happened that in September 1853 young Pugh went abroad, where he remained six years until called to assume the presidency of The Farmers' High School. In due time he secured the degree of Ph.D. at the University of Goettingen, though he studied also at the Universities of Leipzig and Heidelberg. His major study was in the field of chemistry, the subject of his doctoral dissertation being "Miscellaneous Chemical Analyses." While abroad he visited the agricultural academies and schools of Europe, acquainting himself with their scope, curricula, and methods. His last six months on the



EVAN PUGH
President of the College 1859-64

continent were devoted to a residence in Paris and to traveling through Switzerland. He then went to England, where he spent two years upon a series of investigations in the laboratories of Messrs. Lawes and Gilbert at Rothamstead, acquiring such recognition that he was elected a Fellow of the Royal Philosophical Society of Great Britain. A brilliant investigator in the field of agricultural chemistry, he was regarded as a promising young scientist of whom much might be expected. In this country he was honored by being elected to membership in the American Philosophical Society in 1862. Since he not only possessed sound scholarship and broad views but was in thorough sympathy with the idea of industrial education, he was peculiarly fitted to occupy the position to which he was called as President of The Farmers' High School.

As an administrator, President Pugh brought to his task the insight, practical sagacity, and social qualities essential to success. Since the difficulties confronting him were tremendous, it was indeed a task to challenge his utmost endeavors. He found the building only a third completed, the treasury empty, the courses of study imperfectly organized, the faculty inadequate, and the student body undisciplined. Furthermore, the Trustees were under fire for attempting an undertaking beyond their ability to render a practical success, and the very school itself was an experiment which many thought was doomed to failure. Everything about the place was crude, almost primitive. The campus was unsightly, the farm was rough, the location was inaccessible, the equipment was meagre, the library was negligible, the village of State College was in the process of being born, and all supplies had to be hauled long distances. Undaunted by these difficulties, Dr. Pugh, sustained by the belief that the College had a special mission to perform and that a great opportunity was here presented, pressed forward to his goal—to establish in

Pennsylvania an industrial college in harmony with the ideals of its founders. Grasping the situation with a strong hand, he went boldly forward.

To President Pugh, as to the Trustees and the friends of the school generally, it was apparent that the most urgent task in hand was the completion of the main building, without which the institution could not hope to survive. The attempt to raise money by subscriptions had proved so disappointing that this method was abandoned. The only remaining resource was to secure aid from the Legislature, and this was by no means easy to accomplish. While immersed in his duties as teacher and administrator, organizing courses of instruction and bringing order out of chaos, Dr. Pugh never lost sight of the necessity of obtaining legislative aid. This required a campaign of publicity through writing and speaking to arouse public sentiment and to stimulate public interest, to say nothing of visits to Harrisburg to present the claims of the school to the members of the Legislature. Hitherto, the burden of this work had been borne chiefly by Watts and McAllister; but now, though these men continued to be active and influential in the affairs of the institution, the main responsibility of it all rested upon President Pugh. There was at least a reasonable expectation that an appeal for State aid would not be in vain. However unsatisfactory existing conditions at the school might be, it was actually in operation, with its present accommodations crowded to capacity and with every promise that, once the building was completed, it would grow and prosper. If it had an enrollment of a hundred under existing conditions, what might the student body number if the entire building were in use? The session of 1859 closed the middle of December and had been reasonably successful in view of the difficulties encountered. Hence it was thought that, with this much accomplished, the Legislature could be induced to pro-

vide sufficient funds with which to complete the building. Accordingly, in the winter of 1860-61 a bill was introduced into the House of Representatives asking for \$50,000 for the College, but it received little support and did not become a law.

The College session of 1860, beginning the middle of February and closing the middle of December, opened with a capacity attendance, some being turned away for want of room. President Pugh was in high favor, and conditions within the school improved rapidly under his guidance. It was still felt, however, that unless an appropriation were received from the Legislature, the school could not survive. At its meeting in December 1860, the Board voted that \$50,000 was necessary to finish the main building, and that another appeal should be made to the General Assembly to appropriate this sum to the College. Every effort was made to secure the passage of an act appropriating the desired amount. A bill embodying this provision was introduced into the House of Representatives early in 1861 by William C. Duncan, member from Centre County, who championed it ably. It was referred to the Committee on Ways and Means, before whom President Pugh and the Trustees of the College appeared and presented the aims, financial difficulties, and needs of the school. Several of the county agricultural societies sent in letters and resolutions to the House urging the passage of the bill. Meanwhile, from all parts of the State, prominent friends of agricultural reform advocated the measure, either by writing to members of the Legislature or by visiting them personally in Harrisburg. The press was favorable, "the political press without regard to party with singular unanimity uniting with the agricultural press in urging the claims of the bill," which finally passed the House by an overwhelming majority. Colonel Andrew Gregg, member of the Senate from the district in which the College was located, led the fight for the bill in the Upper House,

which promptly passed it in April 1861; and it became a law, authorizing an appropriation of \$49,900. Eleven years were to pass before any further appropriation was forthcoming from the Legislature, which did not begin really to take the College seriously until 1887. In this long period of legislative neglect, the institution was in continued financial difficulties and was forced to borrow \$80,000 to pay its debts. But for the time being at least, the school was saved from dissolution and the outlook was more hopeful than it had ever been.

Unfortunately, however, just when the situation seemed promising, the country was plunged into the throes of the Civil War, which hampered the development of the College and rendered its very existence precarious. Nevertheless, the Board of Trustees, undeterred by this unhappy circumstance, met on May 1, 1861, and decided to proceed immediately to take steps to complete the building. A committee, composed of Watts, McAllister, and Pugh, was appointed with power to take measures to begin work on the building and to push it to completion as soon as possible. The contract was awarded to George W. Tate of Bellefonte, who engaged to complete the entire structure, except for a few specified items, for \$40,500 by December 1, 1862. Work was begun promptly, but the difficulty of securing labor and the mounting cost of materials due to the war delayed its completion until December 1863.

The building thus erected and known throughout the subsequent history of the College as "Old Main," was an imposing edifice constructed of limestone. It was 234 feet long from east to west and 132 feet deep (in its central part) from north to south. Besides the commodious basement, it was five stories high, each story having a hall extending the entire length of the building, and three halls extending back from the main hall—one from the central part and one from each wing. It contained large rooms for chapel, dining room, kitchen, li-

brary, museums, laboratories, recitations, and the preparatory department, together with two society halls and 165 student rooms. The kitchen and dining room were in the large central part of the first floor; over them on the second floor was the chapel, across the hall from which were the library and one of the museums. The students roomed on the three upper floors and, strange though it may seem, the higher up they were the better they liked it, the fifth floor being considered especially desirable. On the first floor were two reception parlors, apartments for one professor, and the living quarters of the family in charge of the culinary department. The building was heated at first by hot air, but by the fall of 1872 the furnaces were worn out and for a time the students heated their rooms with coal carried from the basement. The water supply was from a well and from cisterns in the basement; in 1879 a reservoir was built on a knoll that stood on the outskirts of the present baseball field.

In addition to Old Main, which housed practically the entire College in the time of President Pugh, and indeed for many years later, there were on the campus two frame dwelling houses, one of which was occupied by Professor Whitman and the other by the carpenter and the superintendent of the laundry department. Other buildings at the time were a large two-story barn, with which were connected a corn crib, wagon shed, and cisterns; a large hog pen, over which were a granary and a slaughter house; and a blacksmith shop, a carpenter shop, and a laundry. In the summer of 1863 Dr. Pugh secured the consent of the Trustees to the erection of a president's house to cost \$3000. He offered to donate \$1000 of the amount if the Board would furnish the remainder, which they agreed to do. It was not completed in his lifetime, however, but, with many alterations and im-

provements, it has been occupied by all succeeding presidents of the College.

The original faculty of 1859 underwent certain changes during the administration of President Pugh, who not only took over the executive duties formerly exercised by Professor Waring, but himself became the outstanding member of the faculty as professor of chemistry, scientific and practical agriculture, and mineralogy. He developed chemistry especially into a strong course and, by securing \$1000 from the Board of Trustees and donating \$500 out of his own pocket, was able to obtain considerable laboratory equipment. Professors Baird, Allison, and Waring resigned, and the vacancies were filled by the appointment of Thomas R. Baker, professor of mathematics, astronomy, and physics, and George C. Caldwell, professor of agricultural chemistry and scientific agriculture. Of the original faculty, David Wilson remained as professor of English language and literature, moral and intellectual philosophy; and J. S. Whitman, as professor of botany, physiology and zoology. As vice-president from 1859 to 1864, Professor Wilson was an important cog in the administrative machinery and rendered conspicuous service. This completes the list of the faculty in the days of President Pugh; it was much stronger when he left it than when he found it.

With a capacity enrollment in the session of 1860, the school was doing well in attracting students; but when the Legislature of that year failed to pass the College appropriation bill, many became skeptical as to the survival of the institution, and the number of students declined to 88 in the session of 1861. Although confidence was restored by the successful fight for the appropriation at the next meeting of the Legislature, it came too late to effect an improvement in enrollment for that year. Nevertheless, this third session was a



THE FIRST GRADUATING CLASS, 1861 *

sort of landmark in the history of the College, since it was signalized by the graduation of the first class—the class of '61, eleven in number. This class was graduated in three years in a college with a four-year course because the students composing it, being a more mature group than those who came later and therefore further along in their studies, had entered as sophomores. Although the class had started with fifty-five students, by 1861 its numbers had been reduced to seventeen, of whom only eleven completed the course satisfactorily and received the degree of Bachelor of Scientific Agriculture. The members of the class were J. N. Banks, A. C. Church, J. W. Eckman, Samuel Holliday, J. D. Isett, M. S. Lytle, E. P. McCormick, James Miles, Jr., C. Alfred Smith, C. E. Troutman, and L. C. Troutman. All of these became useful citizens of the Commonwealth; eight lived to celebrate the fiftieth anniversary of the class, two became Trustees of the College, and one became an outstanding professor in the institution.

It was inevitable that conditions at the College should be disturbed by the Civil War. When, following the fall of Fort Sumter, President Lincoln called for 75,000 troops to invade the South, there was great excitement among the students. President Pugh assembled the boys in the chapel and addressed them with words of caution and advice, which somewhat allayed the general feeling of unrest. Nevertheless, throughout 1861, 1862, and 1863, the students dropped out from time to time to join the army, and there was no graduating class in 1864. In 1862 they organized themselves into a military company and drilled in such places on the campus as were not covered by stone piles or nursery trees. In answer to the emergency call for volunteers by Governor Curtin in June 1863, occasioned by Lee's invasion of Pennsylvania, there was a general exodus from the College of both students and professors to join the army. This resulted in the practical suspen-

sion of College activities until the "emergency men" were mustered out in August of that year; the College was closed from June to September 1863. Some of the students enlisted in their home communities, while others, to the number of thirty-one, joined a neighborhood company being formed under the command of Captain John Boal of Boalsburg. After their discharge at Harrisburg in August 1863, they returned to the College. When in 1864 the Government again called for volunteers, some twenty-four students went to Bellefonte and offered their services; and Tellico Johnson, one of their number, was chosen captain of this group. Upon being mustered out, all but two of the students returned to the College. Professors Baker and Wilson also served in the army for a time, the former as a private and the latter as a captain. Despite this interruption of the smooth flow of College life, the enrollment increased each year of the war, from 88 in 1861 to 146 in 1864; and in 1862 the graduating class of fifteen was the largest the College was destined to have until 1890.

President Pugh gave much thought to the arrangement of courses of study. As has been noted, the institution was conceived of as being of collegiate grade from the beginning, and was organized on that basis. From the first there was a four-year College course, embracing English, mathematics, philosophy, and a wide range of scientific subjects. As became an industrial college, the emphasis was on the sciences. In the time of President Pugh there were no courses in Latin and Greek, but a thorough knowledge of English was deemed important, along with some acquaintance with mental and moral philosophy. For the rest, mathematics and the natural sciences constituted the bulk of the one course of study that was offered leading to a degree, and these comprised at least three-fourths of the student's work in the classroom. For sev-

eral years students were restricted to one course, but the catalogue of 1861 added to the regular four-year "full course" two others designated as "Partial Scientific and Practical Course" and "Practical Course," respectively. In harmony with the views of the founders, the full course was designed primarily to give theoretical instruction in agriculture, along with the sciences bearing on that subject. Since it appeared, however, that many students lacked the ability to master the mathematics of the full course, yet were able to make progress in the natural sciences, the Partial Scientific and Practical Course was instituted to meet the needs of this group. The less comprehensive Practical Course was intended for those who could remain at the College for only a limited time; but wished to acquaint themselves with the various operations of the farm, garden, and nursery, and to attend some of the classes in order to get a general idea of the subjects taught. Graduate work was inaugurated in 1864 with a "Course for Graduates" designed for students who, after receiving the degree of Bachelor of Scientific Agriculture, wished to take an additional year of advanced work leading to the degree of Master of Scientific Agriculture.

The students were required to perform three hours of manual labor daily on the farm or about the building. All the many things that a boy on a farm is ordinarily called upon to do were done by the boys at the "Farm School," as the institution was commonly called for some years. They planted, worked, and harvested the crops, picked apples, gathered and hauled stones, set out hedges, pared apples and peeled potatoes, hauled coal from Bellefonte or Snowshoe, ran errands, hauled water, rang bells, turned washing machines, swept halls, tended lamps, and did odd jobs of carpentering. Thus they performed regular "details" of labor for five days in the week, had ravenous appetites, and were hefty and husky,

thereby satisfying that part of the constituency which had been fearful that education of farmers' sons would wean them away from the farms and make them "highfalutin."

In 1863 the Preparatory Department was instituted to provide educational opportunities for boys not sufficiently advanced to enter the freshman class, or else too young to meet the age requirement of sixteen years. This department became a regular feature of the school for many years and was not finally abolished until the administration of President Sparks, who had himself at one time been its principal. Its initial enrollment was twenty-four, and thereafter it continued to increase, constituting a rather large percentage of the student body.

Of no slight significance in the history of the institution was its change of name from "The Farmers' High School of Pennsylvania" to "The Agricultural College of Pennsylvania." The original name had been chosen partly from a feeling that the farmers would be prejudiced against the word "college" as being "a place where boys only contracted evil habits," and partly because the first intention appears to have been to establish a small school with a limited course of instruction. It turned out, however, that when the school was organized it was projected on a collegiate basis with a full four-year course. Since this was the case, it seemed logical and desirable to change its name to correspond with the type of instruction actually offered; and the Trustees considered that the completion of the building, assured by the legislative appropriation, furnished an appropriate occasion for changing the name. Furthermore, in the event that the land-grant bill establishing industrial colleges became a law, the school would have a far better claim to be designated as the land-grant college of Pennsylvania if it called itself a college rather than a high school. Accordingly, at the request of the faculty and

upon the recommendation of the Board of Trustees, H. N. McAllister made application to the Centre County Court at its spring session in 1862 for a change of name to "The Agricultural College of Pennsylvania." No difficulty was encountered in securing favorable action from the court, and the Board, at its meeting on May 6, 1862, formally approved the change of name. Although the school had experienced many vicissitudes hitherto, President Pugh declared that it "had received a degree of patronage unprecedented in the history of Agricultural Colleges" up to this time, and had the largest enrollment of any school of its type in the country. Furthermore, with the passage of the Morrill Act, the prospects seemed brighter than at any previous time in the history of the institution.

A turning point in the history of the College was the Morrill Land Grant Act of 1862. The Federal Government had often made lavish grants of land for various purposes in the past, and now, with millions of acres yet at its disposal, it occurred to those who favored the establishment of industrial colleges that here was a wonderful opportunity to accomplish their aim by securing grants of land with which to finance the new type of education they desired to promote. This movement came to a head when Justin S. Morrill of Vermont introduced his Land Grant Act on the floor of the national House of Representatives on December 15, 1857, and led the fight for its passage. After many delays it finally passed both Houses of Congress, but was vetoed by President Buchanan on February 26, 1859. In his veto message the President gave as his reasons for not approving the bill: that it was extravagant and would deprive the treasury of \$5,000,000 at a time when the government's funds were running low; that it was impolitic, encouraging the states to rely upon the Federal Government for aid to which they were not entitled; that it

was injurious to the new states, since it would force down the value of land scrip and make it possible for speculators to obtain large grants within their borders; that it would not assure the objects in view, since there was no power in the Federal Government to compel the states to carry out its provisions; that it was unjust, since it would interfere with and injure colleges already established by their own efforts; and finally, that it was unconstitutional, because there was no grant of power to the Federal Government to expend money or public lands for the benefit of the people of the various States.

In the fall of 1861 Mr. Morrill reintroduced his bill, which eventually passed both Houses of Congress by overwhelming majorities and was signed by President Lincoln on July 2, 1862. Under the terms of this act there was granted to each state, for the support of colleges for the industrial classes, 30,000 acres of land for each Senator and Representative it then had in Congress. If a state had within its boundaries a sufficient amount of land belonging to the Federal Government to satisfy its claims, it was to receive title for such land; otherwise, it was to receive scrip that would give it the right to select land from the national domain elsewhere. The funds received from the sale of such land were to be retained forever, and only the income could be used for the support of the institutions which were to be created under the act. No part of this fund, nor of the interest thereon, could be applied to the purchase, erection, or repair of any buildings. Any state accepting the provisions of this act was required to found at least one college within five years of such acceptance, and to express its acceptance by its legislature within two years from the date of its approval by the President. Ten per cent of the amount received by any state could be expended for the purchase of lands for sites or for experimental farms when-

ever authorized by the respective legislatures of such states. All expenses connected with the management and disbursement of funds received from the sale of lands were to be paid by the states "so that the entire proceeds of the sale of said lands shall be applied without any diminution whatever to the purposes hereinafter mentioned."

The purpose of this legislation, as stated in the act itself, was: "The endowment, support, and maintenance of at least one college where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such manner as the Legislatures of the States may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life." Some doubt having arisen later as to the intent of the act, Senator Morrill, speaking at the Massachusetts Agricultural College in 1887, explained that the land-grant colleges were founded for the purpose of affording a higher and broader education to those pursuing industrial vocations; and then went on to say: "The design was to open to them a liberal education for this large class at a cheaper cost from being close at hand, and to tempt them by offering not only sound literary instruction but something more applicable to the productive employments of life. It would be a mistake to suppose that every student should become either a farmer or a mechanic." In other words, his interpretation of the act was to give it a far broader scope than many had been in the habit of attributing to it; and time and experience have worked in favor of the more liberal interpretation. When the Morrill Act was passed, there were about two hundred colleges in the United States, in nearly all of which the classical course leading to the degree of Bachelor of Arts was the only regular course,

and Latin and Greek were the principal entrance requirements. Although these institutions served the leisure class and trained students for the learned professions, they did but little for the rank and file of the population. The land-grant colleges established by the Morrill Act were at once a protest against the dominance of the classics in higher education, and an attempt to meet the needs of the industrial classes for education on the college level by providing instruction relating to the practical activities of life. But they were not intended to bar the industrial classes from a liberal education, and therefore included scientific and classical studies. In the beginning they were largely agricultural colleges, expediency requiring them to stick rather closely to their agricultural constituency, then the dominant economic interest; but with the growth of manufacturing and mining, they paid increasing attention to the "mechanic arts," and finally, grasping the idea of education as a full-orbed truth, they extended the hand of fellowship to the liberal arts. This was a gradual process, however, and was not brought about in most cases without a struggle. The results of the Morrill Act have been of tremendous significance. Even the most optimistic and ardent advocate of the new system of instruction could not have foreseen the important role that the fifty-two land-grant colleges and universities of the United States were destined to play in higher education in later times.

With the passage of the Morrill Act, the question at once arose in Pennsylvania, as in the other states, as to its acceptance by the Legislature; and, in the event of such acceptance, as to the disposition of the funds receivable for the sale of lands under the act. Wide-spread interest was aroused, and the proposal was freely discussed in the press and in educational circles throughout the Commonwealth. Fostered by colleges which hoped to share in its benefits, and also by the

active efforts of agricultural societies and leaders, public opinion crystallized rapidly in favor of accepting the grant. The Agricultural College of Pennsylvania took prompt action in the matter, the Board appointing Frederick Watts, A. O. Hiester, and James T. Hale to present the claims of the College at the next meeting of the Legislature. Little difficulty was experienced in securing the acceptance of the act by the General Assembly; but the distribution of the funds was another matter, some of the legislators favoring the proposal that the proceeds from the land sales should be distributed among several institutions rather than to one only. Early in 1863 the Legislature accepted the Morrill Act "with all its provisions and conditions, and the faith of the State is hereby pledged to carry the same into effect." The act of acceptance vested the disposal of the land scrip in a board of commissioners consisting of the surveyor-general, the auditor-general, and the governor, but failed to provide funds for meeting the expenses incurred in the sale of the land.

The Agricultural College of Pennsylvania was designated as the beneficiary of any revenue derived from such funds as might accrue under the act until otherwise ordered by the Legislature. Pleas were made, to be sure, for certain privately endowed colleges in the State, especially for the Polytechnic College of Philadelphia, but it was generally felt that The Agricultural College of Pennsylvania was the only institution in the State then eligible for participation in the land-grant funds, as indeed it was. The act still left in doubt, however, the matter of the continued preferred position of this institution as the sole beneficiary of these funds. Consequently, the friends of the privately endowed colleges secured an amendment to the bill providing that the Legislature might be permitted to appropriate a part of the fund to any other agri-

cultural college which might be established at some future time.

As might be expected, attempts to obtain a redistribution of the funds accruing from the land-grant act were immediately forthcoming, and a strong movement was started to amend the act of 1863 to secure this end. When the General Assembly convened in 1864, numerous petitions were presented by interested parties from educational institutions all over the State praying for an amendment of the act to provide an opportunity to divide the revenue instead of granting all of it to one school. Regardless of the fact that The Agricultural College of Pennsylvania was the only institution so organized as to enable it to meet the requirements of the Morrill Act and that it was clearly the logical recipient of its benefits, there was a general scramble on the part of other institutions to secure a share of the proceeds of the grant. Despite the hollowness of the claims of these colleges, they had strong backing in the Legislature, and the movement they sought to promote was truly a formidable one. In response to their demands, a bill was introduced into the Legislature early in 1864 for a repeal of that section of the Act of 1863 which provided for the appropriation of the income from the sale of the land scrip to The Agricultural College of Pennsylvania.

In this emergency the friends of the College naturally bestirred themselves energetically to prevent the passage of the bill, meanwhile exerting themselves to the utmost to conform to the requirements of the Morrill Act the better to strengthen their position. In January 1864 President Pugh prepared and the Board ordered printed an elaborate plan for the organization of colleges for agriculture and the mechanic arts in general, "with special reference to the organization of The Agricultural College of Pennsylvania, in view of the endowment of this institution by the land scrip fund do-

nated by Congress to the State of Pennsylvania." In this able 35-page pamphlet Dr. Pugh expressed his wonderment that other colleges were preparing to dispute the rights of The Agricultural College of Pennsylvania on the ground that they too had just established agricultural departments in their institutions. He then remarked caustically: "This is all the more remarkable because none of these institutions before had attempted to develop departments of Agriculture and the Mechanic Arts, and many of them had taken pains to show that all substantial education must be based upon classic culture, and that the modern idea tending towards a substitution of scientific education for the study of Latin and Greek was a pernicious result of the too utilitarian spirit of the age." He next proceeded to show that large resources are required to sustain an industrial college, and to set forth a plan for the organization of such an institution. This provided for a president, fifteen professors, a librarian and treasurer, ten assistants, and two superintendents, or a total of twenty-nine. Of the fifteen professors, ten would give instruction in mathematics, agriculture, the sciences, engineering, and mining; the remaining five, in English, modern languages, Latin and Greek, commercial subjects, and military tactics. This is his interpretation of the sort of institution needed to meet the requirements of the Morrill Act, and serves to show how far he was in advance of his time, and the extent to which he anticipated the subsequent development of land-grant colleges and universities. He urged that a large endowment is essential to the success of an institution so organized, requiring an income of at least \$47,500 a year and a student body of about four hundred. He then pointed out that the income to be expected from the Morrill Act would be barely sufficient to maintain one industrial college in the State, and that to divide it would be to defeat the purpose of Congress. The Agricul-

tural College of Pennsylvania, he maintained, was a State institution to which the State had already appropriated \$100,000. Furthermore, the friends of the College had labored to secure the passage of the Morrill Act and had always taken it for granted that this institution would be the sole recipient of its funds in Pennsylvania. He showed that the proceeds from the sale of the land scrip would not be as large as many seemed to think, and would not be adequate to support more than one institution. The Trustees ordered 3000 copies of this address to be printed and circulated "as embodying the sentiments of the Board upon the subject of a complete organization of a college devoted to agriculture and the mechanic arts." This action of the Board is significant as showing how far, in the minds of the members of the Board, the Morrill Act had extended the scope of the College beyond that of a purely agricultural institution.

While the bill to amend the Act of 1863 was being considered by the Legislature, President Pugh appeared before a special committee of the Judiciary Committee at Harrisburg on March 3, 1864, and made a masterly plea for the College in reference to the proposition to deprive the institution of its endowment. This address, which was published in pamphlet form and placed on the desk of every member of the General Assembly, elaborated still more convincingly his argument previously made in his "Report on a Plan of Organization." He took up all the proposals before the Legislature for a re-allocation of the funds to be derived from the sale of the land scrip and exposed their fallacy; and made a powerful argument setting forth the superior claims of The Agricultural College of Pennsylvania. Nevertheless, the friends of the bill to amend the Act of 1863 labored hard for its passage and succeeded in the Senate, which passed it by a vote of 23 to 9; but the end of the session being near, the House, by a vote of 47 to 44,

adopted a resolution to postpone indefinitely further consideration of the measure. It had been a long, hard fight, but the College was saved and its friends had cause for rejoicing. The movement to force a redistribution of the income from the land-grant fund continued, however, to bob up at intervals for some years; and the College did not feel secure in the matter until the Legislature, by the Act of February 19, 1867, finally designated The Agricultural College of Pennsylvania as the sole beneficiary of the Morrill Act in Pennsylvania, all the land scrip for this State having been sold by that time.

During the controversy over the distribution of the land-grant funds, plans were being formed for the sale of the land scrip and for the investment of the proceeds. Under the terms of the Morrill Act, Pennsylvania, with her two senators and twenty-four representatives, was entitled to receive from the Federal Government land scrip representing 30,000 acres for each of them, or a total of 780,000 acres. By the Act of April 1, 1863, Governor Andrew G. Curtin, Auditor-General J. F. Hartranft, and Surveyor-General J. M. Campbell were appointed commissioners to dispose of the land scrip. Delays occurred and the commission did not hold its first meeting until July 14, 1864, when it formulated rules of procedure and authorized the surveyor-general to appoint an agent for the sale of the scrip. At an adjourned meeting of the commission on August 2, 1864, William H. Allen, President-elect of The Agricultural College of Pennsylvania, was appointed agent of the commission, and a circular was issued inviting bids. Owing to further delays, it was several years before the College received any aid from this source.

Meanwhile, President Pugh was confronted with the problem of administering the College with inadequate revenue in the disturbed conditions of war times. He had a multiplicity of duties to perform, and these, together with the concurrent

fight to retain the land-grant revenue, were a heavy draft on his energies. He was at once president, teacher, financial agent, and publicity director. Besides being called upon to write elaborate papers in support of the cause of the College, to appear before legislative committees, to encourage friends and to placate enemies, he had to prepare catalogues, to outline courses of instruction, and to maintain discipline. To add to his troubles, he suffered severe injuries to his person in June 1863, when his horse took fright in a thunderstorm and backed his buggy over a high embankment, breaking his arm and causing other injuries. Owing to poor surgical treatment, his arm healed slowly; and eventually he had to go to Philadelphia for more skillful treatment. After recuperating for some time with friends in Chester County, he resumed his duties at the College in October 1863. On February 4, 1864, he was married to Miss Rebecca Valentine of Bellefonte. It now seemed that fortune was at last beginning to smile upon him: he was happily married, had won his fight in the Legislature, and the Civil War was over. But his health had been undermined by the heavy strain to which his over-burdened system had been subjected; he had reached the limit of physical endurance. On April 22, 1864, while at work at his desk, he was taken ill, and just a week later he passed away. It is said that in his delirium immediately preceding his death, he imagined himself arguing before a legislative committee in support of the College.

Student life and customs in the time of President Pugh serve to illustrate the crudity characteristic of the institution in those early days. Isolated from the outside world, with little beyond study and manual labor to engage their attention, the students lived a life unto themselves in a big building located on a farm when as yet hardly even a village had grown up beside the College, and there was no opportunity to indulge

in the amusements commonly found elsewhere. According to C. Alfred Smith, a member of the first graduating class: "There was not much play in those days; our exercise was furnished in three hours of real work, or in the care of the building, for there was no hired help except in the kitchen, and even there we students did the waiting at table, set and cleared the table and washed the dishes." Tellico Johnson, '65, adds further details, recalling how he picked up stones on the farm for three hours daily, and then was promoted to a plow and a team of mules. In the board shanty which first served as a dining room the students sat at long tables extending the full length of the room, with a professor at the head of each table; and grace was said at each meal. Johnson has this to say about Dr. Pugh: "He was a most commanding figure and presence. I have never seen a stronger man; in fact, he was almost a giant. I have seen him take a barrel of oil by the chimes and put it into a wagon. Very tall, with immense chest and Samson build, piercing eyes, and commanding voice, he was an ideal leader." On one occasion two students got into a fist fight in the dining room, whereupon Dr. Pugh took about six jumps to reach the scene, grabbed each of the culprits as if they were children, and put them unceremoniously out of the room. From this it may gathered be that he was not a man to be trifled with, and was at all times in full control of the situation.

There were no sports at the College in those days—no baseball, football, basketball, or tennis, the superfluous energies of the boys being expended in performing their daily detail of manual labor. The gymnasium consisted of some rings and parallel bars in the woods back of Old Main. Saturday afternoons were often devoted to tramps over the valleys and mountains to gather specimens of flowers and plants as a sort of botany practicum. Occasional botanical trips were taken

farther afield to Bear Meadows, or even to Snow Shoe, Rattlesnake Tavern, and other places.

For some months after the College went into operation there was a lack of order and discipline; but with the coming of Dr. Pugh an elaborate series of rules was drawn up, published, and put into effect in 1860. These required the students to rise in the morning at 6:00 o'clock at the ringing of the first bell and to put their rooms in order, following which they attended chapel and breakfasted. The morning was devoted to study and recitation until the ringing of the bell at noon gave the signal to prepare for dinner. The afternoons were occupied in study, recitation, and labor detail until 5:00 o'clock. Supper was preceded by a second chapel service, and was followed by study until 10:00 o'clock, when the ringing of the bell was the signal for "lights out." There was no study or labor on Saturday afternoon. On Sunday the students were required to attend regular devotional services in the chapel and to refrain throughout the day from "any boisterous noise or disturbance." The playing of any game of cards and the use of intoxicating liquors in any form were strictly forbidden. The students' rooms were first lighted by candles, but later by kerosene lamps; and were heated by small stoves with coal hauled from Bellefonte.

The bright spot of the week was the meeting of the literary societies on Friday evening. Although the College was founded primarily as an agricultural school, there were from the beginning certain students who were by no means indifferent to cultural values, and these took the initiative in organizing the societies. Within a fortnight after The Farmers' High School was opened, the faculty granted the petition of the students to associate for literary training. Somewhat later, the professor in charge of the evening chapel service announced that

the whole number of students would be divided into two equal sections, each of which was authorized to organize a literary society. The lists were made up by drawing names alternately from a hat, where they had previously been placed. On March 4, 1859, one of these groups met and organized the Washington Agricultural Literary Society; and at about the same time the other group organized the Cresson Literary Society, named in honor of Elliott Cresson, an early benefactor of the College. The word "Agricultural" was afterward dropped from the name of the Washington Agricultural Literary Society. These two organizations, between whom there was considerable rivalry throughout their entire history, played an important part in the life of the students for many years. Very early in their history they elected a number of eminent men as honorary members, and their records contain letters of acceptance of honorary membership from Abraham Lincoln, James Buchanan, Edward Everett, Thaddeus Stevens, Evan Pugh, Craig Biddle, James Pollock, James A. Beaver, and many others. The first two catalogues give not only the names of the students but also the literary society to which each belonged; but this practice was discontinued in favor of substituting instead the grades of the students of the graduating class. The literary societies languished during the Civil War period, but made a new start thereafter and became flourishing organizations about which we shall hear more later.

During the administration of President Pugh the expenses of the students were very moderate, being limited to \$100 a year for practically everything except light for their private rooms, textbooks, and a small fee for chemistry apparatus. Since this proved to be less than the cost of maintenance, the College was run at a loss. Nevertheless, in view of the income expected under the Morrill Act, the charge was not increased.

It turned out, however, that this income was not forthcoming for several years, and the delay cost the College thousands of dollars. The room furniture consisted of an iron cot, mattress, table, and washstand, which the College furnished, along with sheets, pillows, and pillow cases; but the students furnished their own blankets and other covering. Popular clothing for everyday wear consisted of rough flannel shirts and corduroy trousers, and old clothes were worn on labor details. No one went "dressed-up" all the time; the College lacked a good deal of being a kid-glove institution. When The Farmers' High School began operations, a tri-weekly stage line was established between Bellefonte and the school, a distance of twelve miles; and another between the school and Spruce Creek, a distance of twenty-two miles. These two towns were the nearest railroad stations. In 1862 the name of the post office was changed from Farm School to Agricultural College of Pennsylvania; but in 1874 the name of the village and of the post office became State College, and has so remained.

Although President Pugh's administration was beset with difficulties, it registered progress in the history of the College. Finding everything in a somewhat chaotic condition, he infused new confidence into the friends of the institution, strengthened the faculty, increased the student enrollment, reorganized the courses of study, and proved himself to be a wise and capable executive. He erected a president's house, improved the College farm, and was instrumental in having the name of the school changed to make it conform more fully to its character. By securing a legislative appropriation to complete the main building, he saved the school from dissolution. He carried out in good faith the ideals of the founders, and prepared a comprehensive plan for future development. He helped to secure the passage of the Morrill Act, and led

the fight in the Legislature to retain its benefits for The Agricultural College of Pennsylvania. All of these things were accomplished within the brief space of about four years, and served to give President Pugh an honorable place as an outstanding executive of the College, which treasures his memory as one of its most valued possessions.

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*ERA OF DRIFTING
AND EXPERIMENT*

1865 - 1882

IN THE DEATH of President Pugh, the College sustained a crushing blow just at the time when his skillful hand was needed to steer the institution through the troubled waters that lay ahead. He had understood the situation fully, knowing exactly what were the needs of the school and how to go about meeting them. His ability was everywhere recognized; he enjoyed the confidence and esteem of the Trustees, of the student body, and of the public. His loss was a disaster from which it took years to recover. There followed a period of arrested development, of experiment, drifting, and decline threatening the very existence of the College. Attacked on every hand and widely discredited, it reached so low an ebb of its fortunes that even its friends began to despair of its survival. This did not come all at once, to be sure, but progress was halted and the general trend was downward.

Within eighteen years following the death of President Pugh the College had five presidents, with terms varying from nine months to nine years, the usual period of service being about two years. Of the presidents holding office in this period, not one had qualifications of the high order required by the situation or measured up to the demands of a task admittedly difficult. By common consent the task of a college president, particularly if he be at the head of an institution



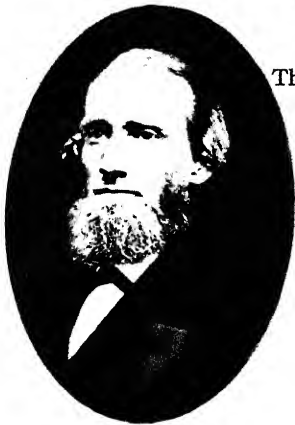
William Henry Allen
1864-66



John Fraser
1866-68



Thomas Henry Burrowes
1868-71



James Calder
1871-80



Joseph Shortlidge
1880-81

EARLY PRESIDENTS OF THE COLLEGE

dependent for its chief support on legislative appropriations, is no easy one, and only those who have exceptional wisdom, tact, energy, and resourcefulness may hope to succeed, however able the Trustees and however loyal the alumni. Most of the presidents of Penn State in this period were men of no mean attainments, but none of them had that rare combination of qualities requisite to the successful management of an institution of this type. Hence it was a dreary period of drifting and confusion not inaptly called the "dark ages" in the history of the College. After President Pugh, the helm was not grasped by a hand equally sure and skillful until 1882, when President Atherton appeared upon the scene.

Although the decline suffered by the College in the period under review must be attributed chiefly to the failure of the presidents to measure up to the situation, it should be said in their behalf that their task was a peculiarly difficult one. The school was as yet too new and too much of an experiment in education to win the confidence and support of the public without a struggle. The classical colleges, entrenched in their position and having behind them the sanctions of custom and tradition, could be relied upon to throw obstacles in the pathway of the new movement in education as represented by the industrial college, regarded as a revolutionary innovation. The Pennsylvania State College was from the beginning a State school dependent upon legislative support to erect its buildings and to maintain itself financially, but such aid was difficult to secure. Furthermore, the class of patronage to which the school particularly appealed was not one from which large tuition fees could be expected, nor did the College have the resources of denominational support such as many colleges enjoyed. Dependent in its earlier years wholly upon tuition fees, its financial situation was precarious, not to say critical.

The prospects of the College improved considerably with the enactment of the Morrill Bill and with the Act of 1863 passed by the Pennsylvania Legislature, but this revenue did not immediately become available and in the interim a large floating debt was accumulated to keep the school in operation. Furthermore, no part of the income from the land scrip could be expended for the erection of new buildings, which were sadly needed. Hence the College was compelled to struggle along throughout this whole period, and indeed for some years thereafter, without adequate financial resources. It must be said also that, as time went on, the College authorities, or at least some of them, began to lose sight of the peculiar objectives of the school as an industrial and land-grant institution and to carry on very much after the manner of the classical colleges, so that by the end of the period its courses largely resembled those of these institutions. Thus it lost much of its special appeal as an industrial college by failing to cater to its natural constituency, with a consequent loss of patronage. Again, its location was isolated, its physical plant and campus not very attractive, and its equipment inadequate, while a certain crudity which characterized it led to its being called the "college of the barrens." The fundamental cause of its troubles, however, was a lack of adequate revenue, and this in turn was the result of the failure of the Legislature to accord to it that recognition which was its due as the child of the State to whose maintenance the faith of the State had been pledged by the Act of 1863.

Upon the death of President Pugh, Jacob S. Whitman, vice-president and professor of botany, was chosen to serve as acting president until a new executive should be elected, and the vacancy in the chair of chemistry was filled by the appointment of George C. Caldwell. At its meeting in June 1864, the Board elected William H. Allen as president of the Col-

lege "to take effect from and after the beginning of the next session." Meanwhile, in view of the financial straits of the College, the Board voted to raise the price of tuition from \$100 to \$200 a year.

President Allen, a graduate of Bowdoin College, had served for ten years as professor of chemistry and natural history at Dickinson College, and for one year as president of that institution. In 1850 he became president of Girard College, in which capacity he served for twelve years, resigning in 1863 and retiring to his country home until called to the presidency of The Agricultural College of Pennsylvania. Here he remained about two years. In 1852 Union College conferred upon him the degree of LL.D., and in 1872 he was chosen president of the American Bible Society, which office he held for eight years. Soon after his retirement from The Agricultural College of Pennsylvania, he was re-elected president of Girard College, which position he accepted and retained until his death in August 1882. Though a man of parts who had filled important positions acceptably before coming to State College, Dr. Allen was not very happy in his new work, nor did he grasp the situation with a strong hand. Hence his administration was as barren of important achievements as it was brief. The primitive conditions he found at the College appear to have ruffled the serenity of his spirit, and he never became acclimated to his new environment. His personality, however, was engaging and he was popular with the faculty and the students, who regarded him with esteem and even with affection.

Dr. Allen entered upon his duties at a time when the College was in financial distress and when it was still experiencing the effects of the Civil War and of the loss of momentum from having been for some months without a president. At the time he assumed control, the indebtedness amounted to more

than \$50,000, due in part to the unexpectedly large cost of completing the main building and in part to the fact that from the beginning the school had been run at a loss. Meanwhile, the College was not secure in its possession of the exclusive right to the income from the sale of the land scrip when this should be effected, since another fight was being waged to repeal the Act of 1863 and to distribute this income among various institutions in the Commonwealth. Rival educational and sectional interests brought great pressure to bear upon the Legislature, in the session of 1865, to effect such a result, and the issue was by no means certain. To ward off the threatened danger and to secure needed financial aid, the Board of Trustees and the friends of the school generally bestirred themselves. A memorial was forwarded to the Legislature setting forth the needs of the College, asserting its claims for legislative support, and praying that funds be supplied for the establishment of experimental farms "where the principles of agricultural knowledge may be tested by agricultural experiments." This memorial, under date of February 23, 1865, was directed primarily against Senate Bill No. 120, which proposed to divide the land scrip into six parts to be appropriated in equal shares to the University of Lewisburg, Pennsylvania College at Gettysburg, Western University at Pittsburgh, Polytechnic College of Philadelphia, Allegheny College, and The Agricultural College of Pennsylvania. The memorial argued forcibly against dividing the land scrip in this manner, asserting that if the bill were passed the College must close its doors and all that had been thus far invested would be lost. Cogent reasons were given why the literary colleges should not have part of the proceeds of the land scrip, especially in that none of them came within either the letter or the spirit of the Morrill Act, or was in any way responsible

to the industrial classes. Finally, the Legislature was asked to appropriate one-tenth of the principal of the land scrip towards the establishment of three experimental farms, "one at the College, and one East, and one West, on lands of diversified quality, in accordance with the above resolution." After a bitter fight, the bill to divide the scrip into six parts was defeated, due largely to the labors of trustees Watts and McAllister, ably supported by Mr. Alexander, representative from Centre County.

Supplementary to the Act of 1863 was the Act of April 11, 1866, which authorized the payment of expenses incurred in disposing of the land scrip. Incorporated in the act, however, was the unfortunate provision that "no more than one-third of the distributive shares of the said land scrip, donated to the State, shall be sold under the provisions of this act." This provision, together with the delaying tactics of the colleges seeking a division of the spoils, served to retard the sale of the scrip and, consequently, to add to the financial embarrassment of The Agricultural College of Pennsylvania. The act also authorized the Trustees to borrow \$80,000 to pay the indebtedness of the College, and to secure the same by a mortgage on its property. Taking advantage of this authorization, the Board promptly issued mortgage bonds for \$80,000, of which amount \$56,500 was paid on the debts of the College, leaving a balance in hand of \$23,500.

Early in President Allen's administration, he was directed by the Trustees to examine into the matter of introducing military tactics into the institution and to bring in a recommendation on the subject. Means not being available to employ a salaried teacher of tactics, Professor John Fraser of Jefferson College, a Civil War veteran, was appointed professor of mathematics and astronomy and lecturer on military tactics. Such was the humble beginning of the Depart-

ment of Military Science and Tactics at The Pennsylvania State College.

The plan for the reorganization of the curriculum that was to feature the work of the College for the next several years originated in a resolution offered in faculty meeting by Professor Fraser on May 7, 1866, declaring that "the entire educational policy of the institution has failed and cannot but fail to satisfy the expectations of the enlightened friends of education." Upon the adoption of the resolution, Professor Fraser was designated to communicate this action to the Trustees, with the recommendation that the existing policy of the College be reviewed in the interest of greater efficiency of instruction. In response to this recommendation, the Board, at its meeting a few days thereafter, requested the faculty to submit for consideration "such changes and improvements in the literary and scientific departments of the College, including the relation which the students bear to manual labor, as their experience in the practical workings of the institution may have suggested." A faculty committee, consisting of Professors Fraser, Caldwell, and Whitman, acted in conjunction with President Allen, Frederick Watts, and Hugh N. McAllister as an advisory committee and prepared a report on a plan of reorganization, but the plan was to all intents and purposes the work of Professor Fraser. The report was approved in principle by the Board at its meeting July 17, 1866, and was formally adopted at its next meeting on September 4.

On the following day the plan was read by President Allen to the delegates from the different counties assembled in annual meeting at the College to elect trustees; and, after debate, was unanimously approved by them. This unusual action suggests doubt on the part of the Board as to the wisdom of their own action in effecting such revolutionary

changes, and perhaps a desire to share the responsibility in the event the plan should not succeed. The part of President Allen in these proceedings appears to have been that of an interested spectator, especially as he had already decided to resign and did so at an adjourned meeting of the Board on the very day that the plan was adopted. He had gone along with the plan, to be sure, but never as a leader in the movement, and he probably had his doubts about it. It called for a considerable increase in expenditures for instruction; but was thought to be justified by the improved financial condition resulting from the Act of 1866, and by the anticipated favorable action of the Legislature in passing the Act of 1867 appropriating to the College the entire income from the land scrip. President Allen's term of office lasted about two years, his resignation taking effect on November 1, 1866. His main significance in the history of the College lies in his aid rendered in holding the land grant for the institution and in furthering its financial prospects by securing a loan of \$80,000. Though a man of character and culture, he seems to have had no program of his own to promote and rose to no heights of leadership. Even the Act of 1866, which was the outstanding achievement of his administration, was the work mainly of Watts and McAllister, the president being content to follow where others led.

On the same day in which President Allen resigned, Professor John Fraser was elected to succeed him in the presidency, though he did not assume the duties of the office until November 1, 1866. President Fraser, a native of Scotland, had been educated at the University of Aberdeen. He was a man of liberal culture, being especially versed in mathematics, Latin, and Greek. After teaching for some years in the Bermuda Islands and in New York, he was elected Professor of Mathematics in Jefferson College, Pennsylvania. In 1862 he

enlisted in the army, retiring from the service at the close of the war with the rank of brevet brigadier-general. In July 1865 he was elected professor of mathematics and lecturer on tactics at The Agricultural College of Pennsylvania, where he promptly became an outstanding member of the faculty bent upon promoting a vigorous campaign of reform. It fell to President Fraser's lot to put into effect the plan of reorganization which he had been so influential in having adopted by the Trustees.

The plan of reorganization made radical changes in the existing courses of study at the College. It provided for the abolition of the labor rule, and substituted in its stead daily military drill. Agriculture was to be taught as an experimental science by a professor of agriculture, who would lecture in the classroom and supervise experiments on the farm. Three four-year courses of instruction were provided for—general science, agriculture, and literature, leading to the degrees of B.S., B.S.A., and B.A., respectively. Courses in mechanical and civil engineering and in mining and metallurgy were planned and partially provided for, and the faculty was considerably increased. The College year was divided into two terms of twenty weeks each, with the commencement in June, and the expenses of students were raised to \$260 a year.

Immediately upon assuming the presidency, Dr. Fraser reported a plan for the reorganization of the faculty, which contemplated the appointment ultimately of twenty-three professors and instructors. Judge Watts had communicated to the faculty a resolution passed by the Trustees to the effect that their contracts would be terminated at the close of the current session, thereby giving the incoming president a free hand to choose his subordinates. Thus empowered, President Fraser recommended the appointment of John Phin as professor of agriculture; of Henry J. Clark as professor of geology

and zoology; of Francis Fowler as professor of English language and literature; of James McKee as professor of Greek language and literature; of John Hamilton as superintendent of the farm; and of Edward Hoffman as teacher of mathematics and English in the Grammar School. The recommendations were unanimously approved by the Board, "confiding in the knowledge and experience of Professor Fraser." Of these appointees, Professor Caldwell and Superintendent Hamilton were the only members of the old staff to be retained. The plan called for professors of engineering, mining, physics, and modern languages, but these were not appointed at this time, nor did President Fraser insist upon their immediate appointment. The College now had the largest and ablest faculty it had ever had, or was to have for many years thereafter. This comprehensive program had been authorized by the Board because of what was thought to be the improved financial outlook for the College, "and in view of the accession of students anticipated as the result of the enlargement," but the results were disappointing. The plan proved to be too ambitious and expensive, and failed to attract the larger patronage that was expected. Instead of increasing, the number of students decreased rapidly from 114 in 1866 to 30 in 1868, due partly to the increased tuition, partly to the higher standard of admission, and partly to a lack of confidence in the stability of the College. No class was graduated in 1867. Furthermore, notwithstanding the higher tuition charges and the larger income resulting from the Act of 1867, the financial condition of the College grew rapidly worse. The tuition fees fell off from \$16,000 in 1866 to \$5000 in 1868, and, under the downward impetus thus gathered, to \$4000 in 1869, whereas the cost of maintenance had enormously increased.

Much of the financial embarrassment grew out of the failure of the Act of February 19, 1867, to meet expectations of

increased revenues resulting from its passage. This act repealed the restrictive clause of the Act of 1866 providing that not more than one-third of the land scrip should be sold. It further provided that one-tenth of the proceeds from the sale of the scrip be paid to The Agricultural College of Pennsylvania for the purchase of experimental farms, and that the interest from the residue of the sales be paid to the College. This was done, however, "on condition that the trustees establish, conduct, and maintain, in connection with the College, three experimental farms; one near the College, under the immediate supervision of the professor of agriculture of the institution, another east, and the other west, upon lands of diversified quality, under the immediate supervision, respectively, of an assistant professor of agriculture." While this act definitely established the College as the sole beneficiary in Pennsylvania of the funds accruing under the Morrill Act, at the same time it placed upon the College, as a condition thereof, the obligation and expense of maintaining three experimental farms—a provision which eventually involved the institution in unforeseen difficulties, verging upon disaster.

Unfortunately, the sale of the land scrip was so delayed that but little money was immediately available. From this source the College received only \$1176 in 1866 and \$6294 in 1867, and it was not until the fall of 1867 that the land sales were completed and the income for the ensuing year reached the sum of \$25,000. By this time, however, the institution had become heavily involved in debt and was compelled to adopt a policy of sharp retrenchment. Furthermore, the burden of maintaining three experimental farms was a heavy drain upon the resources of the College, involving not only considerable outlay for equipment but an annual expense of \$6000 for maintenance. Meanwhile, the greatly increased cost for in-

struction and the unexpected decrease in the student enrollment resulted in a deficit of \$8000 in 1866, and of \$9000 in 1867, or a total of \$17,000 by January 1, 1868. The Trustees devoted a good deal of their time and energy during the administration of President Fraser to locating and purchasing the experimental farms. The money expended for the three farms, of which one was located at the College, one in Chester County, and one in Indiana County, was \$43,886.50, which was an integral part of the land-grant fund. Another heavy drain upon the resources of the College was the interest charge of \$5600 annually on the mortgage of \$80,000 authorized by the Act of 1866. Thus, by January 1868 the financial situation of the College had become serious, not to say critical. This, together with the discontent arising from the failure of the whole program and policy of President Fraser in the reorganization scheme, led him to tender his resignation to the Trustees in a letter dated March 14, 1868, and presented to the Board by Judge Watts on May 4, to take effect at the end of the current session in June 1868. The resignation was accepted "with expressions of high appreciation for his services." Professors Caldwell and Phin, both men of ability, had already resigned the chairs of chemistry and agriculture, respectively, a few months earlier.

The program of President Fraser, who was a man of initiative and ideas, deserved a better fate than befell it. More than any other of the presidents of the College in the "dark ages" of its history, he grasped in its fullness the true significance and broader obligations of the institution of which he was the head. His scheme bore a strong resemblance to that of President Pugh, and pointed the way to that eventually adopted by President Atherton and his successors. Instead of adhering to the narrow policy of making the institution merely an agricultural college, he sought to carry out the

intent of the Morrill Act by developing courses in engineering, mining, and the liberal arts. His scheme was magnificently conceived, but an unfortunate combination of circumstances doomed it to ignominious failure. He was too much of an idealist and too much in advance of his times to be a practical success. Like many another man at the head of affairs, he committed an error of judgment in attempting to carry out a program which was ideally desirable but practically impossible. He allowed his enthusiasm to carry him beyond the reach of accomplishment, only to suffer the poignant disappointment of failure. Hence his administration was unsuccessful and expired in gloom—one of the darkest hours in the dark ages of the College. A gallant figure who hitched his wagon to a star, he is entitled to our respect for his faith, his courage, and his splendid audacity. He later became Chancellor of the University of Kansas for six years and Superintendent of Public Instruction in that state for two years, concluding his career as professor at the Western University of Pennsylvania, where he died in 1878. Upon hearing of his death, the Board of Trustees of The Pennsylvania State College adopted a resolution paying tribute to his character, attainments, and services, which “are gratefully remembered and will long be cherished.”

Following the resignation of President Fraser, the Board of Trustees on May 27, 1868, passed a resolution declaring that the plan of reorganization adopted two years before had failed to attract students as anticipated and had proved too expensive to justify its continuance, especially in view of the duty now devolving on the College to establish and maintain three experimental farms. It was then voted to reduce the faculty to four members, consisting of James Y. McKee, Henry J. Clark, J. T. Rothrock, and A. P. S. Stuart, of whom James Y. McKee was designated as vice-president and acting

president until a new executive should be appointed. This was, of course, a step backward, but in the financial crisis confronting the College there seemed to be nothing else to do. The charge for tuition and board was reduced to \$170 for the ensuing academic year, in the course of which the attendance declined to twenty-two—the smallest enrollment in the history of the College. The situation was little short of desperate. The institution was head over heels in debt, public confidence was shattered, the number of students had dwindled to a handful, and the Trustees seriously considered the propriety “of surrendering their trust to the authorities of the Commonwealth, and of confessing that the scheme they had undertaken for providing practical instruction for the youth of the Commonwealth had failed.” It was indeed a dark hour in the history of the College, and two of the four professors resigned, only Professors McKee and Clark remaining. The immediate problem to be solved was how to increase the student attendance and to restore public confidence. When the Board met in October 1868, President Watts stated that he had invited Dr. Thomas H. Burrowes to be present to give them the benefit of his advice. Upon being invited to address the Board, Dr. Burrowes advised that the agricultural course should be more practical and less scientific; that the president of the College should have administrative ability as well as scientific and literary attainments; and that the fees for tuition and boarding should be reduced as low as possible. At this meeting a committee, consisting of A. B. Hamilton and Francis Jordan, was appointed to recommend a suitable candidate for president of the College, and to suggest modifications in the curriculum.

Having been led to believe that Dr. Burrowes would accept an offer of the presidency of the College, the Trustees elected him to that position at their meeting on November

20, 1868, to enter upon his duties "at the close of the present term." Upon further consideration, however, he appeared before the Board at its meeting on December 10, 1868, when he stated the conditions on which he would accept the position and outlined the plan which he proposed to adopt if placed in charge. The principal condition to be met appears to have been an increase in the salary of the president from the customary \$2000 to \$3000 a year, with the use of the president's house and grounds together with forage and feed for two horses and two cows. The proposals were accepted and he was given a free hand to carry out his ideas as to the conduct of the school; and was authorized to advertise the College widely in the local papers throughout the Commonwealth.

President Thomas H. Burrowes was a well-known figure throughout the State, especially in educational circles. Though not a college graduate, he had a good academic education and had been admitted to the Lancaster County bar, but never engaged extensively in the practice of law. Entering politics, he was elected to the Lower House of the Legislature in 1831 and 1832. Becoming State chairman of the Anti-Masonic Party and a supporter of Joseph Ritner for the governorship in the campaign of 1835, he was rewarded for his services by being appointed Secretary of the Commonwealth and ex-officio head of the common school system. Upon the expiration of his term of office, he retired to his home county of Lancaster and devoted the ensuing seven years to farming. From 1852 to 1870, most of his time was given to editing and publishing the *Pennsylvania School Journal*, of which he was the founder. In 1860 he was appointed Superintendent of Common Schools for three years, following which he became Superintendent of the Soldiers' Orphan Schools. Finally, in 1868, he was elected to the presi-

dency of The Agricultural College of Pennsylvania, where he served for a little over two years, dying in office February 25, 1871, at the age of sixty-five.

Though President Burrowes had long been an important figure in the public school system of the Commonwealth, he had not hitherto had any experience in higher education either as a professor or as a college president, nor did he display any particular gift of leadership as the head of The Agricultural College of Pennsylvania, which he conceived of almost entirely as a mere agricultural institution. Nevertheless, as a man widely and favorably known throughout the State, he helped to restore public confidence in the College at a time when this was almost destroyed, and his election to the presidency was justified in view of the low estate of the College in the crisis which existed. His work was largely of the nature of a salvaging process and was therefore well worth while. Under his administration the student enrollment increased steadily and the situation generally improved, though progress was slow. There seems to have been a very general feeling that the College was indebted to President Burrowes for pulling it out of the mire and setting it on its feet again; and since this is the particular thing which he was chosen to do, he is entitled to the credit for it.

Though well advanced in years, President Burrowes took charge of affairs with his customary confidence, enthusiasm, and vigor, infusing new life and hope into what had seemed to some to be a hopeless cause. Given full power to do whatever he judged to be expedient to save the situation, he took his task seriously, looked carefully into the work of instruction, and personally superintended the management of the farm. As before the administration of President Fraser, there was now practically but one course of study, and the old system of manual labor, sessions, and vacations was restored. Vacan-

cies in the faculty were filled by the appointment of J. M. Thomas as professor of mathematics and civil engineering, and by the reappointment of J. T. Rothrock as professor of natural science. The inexperience of the president in matters dealing with higher education is shown in the radical change he effected in the name and order of the College classes. He called the students of the preparatory department the Freshman class, and abolished the Sophomore class on the ground that the term "sophomore" was "not very significant," substituting for it the name "Junior" as being "common to all students before diverging into special study." The third year, being the one at the end of which graduation in agriculture would take place, he designated the Agricultural. In the same way, the fourth year and class was called the Scientific, and the fifth the Literary, respectively. According to this plan, which was set forth in all seriousness in the catalogue, graduation with the degree of B.S.A. came at the end of the third year; with the degree of B.S. at the end of the fourth year; and with the degree of B.A. at the end of the fifth year. In the two lower classes all students were required to labor on the farm about ten hours a week, the strictly agricultural students in the third year being subjected to the same rule. But after the junior, or second year, no farm work was required of students in the scientific or literary courses. This scheme of operations, in use only during the administration of Dr. Burrowes, was put into effect at a time when the student attendance ranged from 45 to 59. Whatever its merits or defects, none will deny that it was an original conception.

As professor of agriculture in the College faculty, Dr. Burrowes not only supervised the work on the College farm, but also had general direction of the three experimental farms, which were put into operation during his administration. He sometimes worked in the fields himself, and on one occasion

is said to have suspended school for a week in the late spring so that the boys might catch up with the crops. He adopted a system of experiments to be made on the experimental farms, directing their superintendents to report to him the results of the experiments prescribed by the Board and of any others that they might make on their own initiative. He was interested in practical rather than scientific agriculture, not being trained to lecture on its scientific aspects. One of his innovations was the annual harvest reception or "Harvest Home," which was held for several days at the end of the spring term. The farm was open to the inspection of guests, and new implements and farm machinery were tried. In the evenings, lectures were given by members of the faculty on subjects of interest to farmers, and the literary societies furnished entertainment. In the second year an invitation was sent out offering free entertainment, which so many accepted that the plan was modified and became largely a trial of farm implements, particularly of reapers. The College continued to run behind financially, and it was necessary to borrow money to meet current obligations.

President Burrowes was withal quite an interesting man, noted for "his genial disposition, ready wit, and fine conversational powers." He was rather popular with the boys, with whom he liked to go for an outing in the mountains in the fall of the year. On one of these trips the party was overtaken by unusually severe weather and a heavy snow, and Dr. Burrowes, now an old man, suffered from the cold and exposure, which seriously affected his health. He died at the College February 25, 1871. A service held at his house on the campus was attended by the faculty, students, and employees of the College. He was buried in St. James Churchyard at Lancaster, and in 1895 a memorial campaign, participated in by many people all over the State, resulted in placing a noble monu-

ment over his grave. The new School of Education building, erected in 1939, was named after him, as was one of the streets of the borough of State College. The peculiar features of his program of instruction were promptly abandoned, and exerted no influence on the subsequent history of the institution. Nevertheless, by restoring public confidence in the College and saving it from impending disaster, he rendered a valuable service, for which he is gratefully remembered.

Upon the death of President Burrowes, the Trustees promptly took steps to secure his successor, their choice falling upon the Reverend James Calder, D.D., of Hillsdale College, Michigan, who was elected president on March 10, 1871. Dr. Calder, whose term of office lasted for nine years, was a native of Harrisburg, Pennsylvania, where he was born February 15, 1826. After graduating from Wesleyan College in 1849, he entered the Methodist ministry and served for several years as missionary to China. Returning to the United States in 1854, he held a pastorate for five years until elected to the presidency of Hillsdale College, from which position he was called in 1871 to the presidency of The Agricultural College of Pennsylvania. Not without a certain degree of executive ability, he had a rather successful administration for some years, but finally fell into disfavor and was subjected to considerable criticism, which led to his resignation. Although his administration was marked by various constructive acts and in general registered progress, its outstanding feature was the consistent trend away from the ideal of an industrial college, with a corresponding drift toward a curriculum resembling that of the classical colleges. This was almost imperceptible at first, but became more apparent with each succeeding year. In fact, Dr. Calder's administration is known as the "classical era" in the history of the institution. As a result of this course of action, the main objective of the College, as

conceived by the founders and especially as set forth in the Morrill Act, was gradually lost sight of, there being but little difference observable between this institution and the classical colleges other than that found in military training and in a diminishing emphasis on manual labor. This mistaken policy caused divisions among the Trustees and the faculty, aroused criticism upon the part of the public and the press, and was the occasion of a legislative investigation. Nevertheless, the administration of President Calder was one of considerable progress along some lines and was brighter far than that of any other of the five presidents serving throughout the eighteen years of the dark ages of the College.

The innovations introduced by President Burrowes were discarded. The classes again became preparatory, freshman, sophomore, junior, and senior. The school year was divided into two terms and later into three, with the Commencement in July. Three courses of study were offered, known as the agricultural, the scientific, and the classical. The classical trend is seen in the offering of courses in Latin, Greek, French, and German, while Dr. Calder himself taught mental and moral science. John Hamilton, '71, was the only professor of agriculture. When the curriculum under Dr. Calder was fully worked out, there were, besides the president, eight full professors (including military science and tactics), a principal of the preparatory department, a lady principal, an instructor of music, and three assistants. In addition to these, there were William C. Patterson, superintendent of the College farm, and three superintendents of the experimental farms. The labor rule was also greatly modified, being much less emphasized than under President Burrowes. First, the students were required to work ten hours a week, then only six. Next, the charter was amended in 1875 to permit the Trustees to require of the students only such labor as they might deem ad-

visible, both the faculty and the students having urged objections to this requirement. Finally, in 1878, the labor rule was practically suspended altogether; in its stead an elaborate system of practicums was worked out. This schedule was graded according to the several classes: for men it included work on the farm, orchard, garden, vineyard, mechanics, surveying, and in the chemistry and physics laboratories; and for women, plain sewing, drawing, starching and ironing, house decoration, designing, and a certain amount of laboratory work in chemistry, physics, and botany, and modern languages, instead of military tactics. The "Harvest Home" became a simple affair, with the emphasis on the trial of implements.

For some years the student enrollment increased regularly from year to year, though it fell off slightly as a result of the Panic of 1873 but reached 162 in the session of 1878-79—the largest enrollment prior to 1887. The customary enrollment in President Calder's time was around 150, and the number at the close of his administration was 152. This increase of attendance was due in part to the radical lowering of tuition fees, but especially to the emphasis placed on the preparatory department and to the admission of women.

The admission of women on equal terms with men was a new and important departure from established custom. In the summer of 1871 two women, Rebecca Ewing and Ellen Cross, applied for admission as day students, whereupon the faculty at a special meeting held June 19, 1871, granted their request subject to the approval of the Trustees. At its meeting on September 5, 1871, the Board passed favorably on the recommendation of the faculty and threw open the doors of the College to women. They were admitted to the same courses of study as the men and were subject to the same general rules, though there was of course a variation in the labor rule

and practicums to conform more suitably to their requirements. They were housed on the top floors of the west wing of Old Main, and were under the direct supervision of a preceptress, later designated as lady principal. Instruction in music and in modern languages appears to have been introduced as a result of their admission, along with plain sewing, designing, and house decoration. Six women enrolled the first year and the number increased to forty-nine in 1879—the maximum for the next thirty years. The first women instructors in the College date from the admission of women students, Jane W. Hoyt being employed as instructor in German and French and Nellie S. Robinson as instructor in music.

Early in President Calder's administration the Legislature passed the Act of April 3, 1872, converting the receipts of land sales into a fifty-year bond of \$500,000. The passage of this act was due in no slight degree to the efforts of Dr. Calder, Colonel Francis Jordan, and A. Boyd Hamilton—a service which the Trustees recognized by a formal vote of thanks. It will be recalled that the total proceeds realized by the State from the sale of the land scrip amounted to \$439,186.80. Of this sum, \$43,856.50 was expended in the purchase of the three experimental farms, leaving a balance of \$395,330.30 to be productively invested as an endowment fund for the College. By the Act of 1872 the Legislature, in consideration of the small price received for the land scrip and of the delays experienced by the College in receiving the income therefrom, provided for the issue of a single bond of the Commonwealth for the sum of \$500,000, bearing interest at six per cent and running fifty years from date, with the interest meanwhile, amounting to \$30,000 annually, to be paid to the College. The difference between \$395,330.30 and the \$500,000 in the bond now issued was made up of \$14,960.20 premium on the securities in which the fund had been invested

and an additional \$89,709.50 now appropriated by the Legislature. The effect of this bill was to increase the annual revenue from the endowment from about \$24,000 to \$30,000 annually. Upon hearing of its passage, the students and faculty staged a celebration by holding a public meeting in the chapel, in the course of which President Calder read the bill and made a congratulatory address, the students participated with an oration and declamations, and there were appropriate musical selections.

Another very helpful measure passed by the Legislature was the Act of June 12, 1878, appropriating the sum of \$80,000 for the purpose of paying off the mortgage for that amount on the College property. The interest charge on this mortgage, dating from May 31, 1866, had long been a heavy drain on the resources of the College, but hitherto no legislative aid had been forthcoming in response to the appeals of the College authorities. The act provided that \$40,000 should be paid in 1878, and the remainder in 1879, but the State Treasurer was directed not to disburse any part of the appropriation until furnished with satisfactory evidence that the salaries of College employees had been reduced ten per cent on all salaries between \$800 and \$1500, and fifteen per cent for salaries over \$1500. Inasmuch as the maximum salary received by anyone (except the president) at the College was \$1500, this provision meant a general reduction of ten per cent on all professors' salaries. Many years afterwards, one of the professors involved referred feelingly to this salary reduction as being an amendment to the act secured by "some noble-hearted member" of the Legislature. Since the interest on the \$80,000 mortgage had been at seven per cent, or \$5600 annually, the effect of the bill was to increase the College income by that amount thereafter. Hence, despite the reduction in salaries, there was great rejoicing at the College, the students cele-

brating by ringing the college bell and illuminating Old Main to its capacity. The faculty, however, not being too enthusiastic about it, looked on with mixed feelings. From the standpoint of the Trustees, things were going wonderfully well: the income of the College was increased by \$5600 a year, while its expenses were reduced about \$1400 a year in salaries, resulting in an annual saving of about \$7000. The Act of 1872 had increased the annual income from the endowment by \$6000, and the present act had reduced its expenses by some \$7000, so that the financial condition of the College had been improved by the two acts combined to the extent of about \$13,000 annually. However, beginning with 1874, the College had abolished all tuition charges except for music and a fee of \$20 a year for fuel, lights, and janitor service, with the result that it continued to have difficulty in meeting its financial obligations.

Of no slight significance in the history of the College was its change of name to The Pennsylvania State College. It will be recalled that the institution was originally known as The Farmers' High School of Pennsylvania, but that, in anticipation of the passage of the Morrill Act and because the school from the beginning had actually been of collegiate grade, its name had been changed in 1862 to The Agricultural College of Pennsylvania. For some time, however, it had been felt that a further change of name was desirable "because," as Dr. Calder said, "the old name not only failed to express the breadth of purpose contemplated by the laws under which the College received its endowment, but also misled many persons as to its real character." It was thought, also, that in numerous instances students were prevented from entering because of the impression that had got abroad that the College was intended to serve only those who expected to be farmers, whereas the majority of them had con-

sistently followed other pursuits. In point of fact, of the first ninety alumni of the College only twelve were farmers. Inasmuch, therefore, as the name did not correspond to the real character and design of the institution, it was decided to change it. Accordingly, at a meeting of the Board of Trustees held September 24, 1873, General Beaver was appointed a committee to apply to the Court of Common Pleas of Centre County to change the name of the institution from The Agricultural College of Pennsylvania to that of The Pennsylvania State College; and this was done by order of the Court January 26, 1874.

Important administrative changes in the time of President Calder were: the creation of the Executive Committee of the Board of Trustees in 1874, and the amendment to the charter changing the number and basis of election of Trustees in 1875. At its meeting on January 13, 1874, the Board resolved, "That until otherwise ordered, General Beaver, the President of the faculty, and the Vice-President shall constitute an Executive Committee, whose duty it shall be to represent the Trustees in the interims of meetings of the Board, to superintend the expenditure of appropriations made by the Board, and generally to manage the affairs of the institution." The Committee was directed to meet at the College at least once a month, to keep a record of their acts, and to submit this to the Board for revision and approval at each meeting of the Trustees. In accordance with this action, General James A. Beaver, President James Calder, and Vice-President James Y. McKee met at the College January 17, 1874, and organized the Committee by electing General Beaver chairman, and President Calder secretary. Since its organization, the Executive Committee, always including among its members the president of the Board and the president of the College, has played an import-

ant role in the history of the institution, exercising an influence that it would be difficult to overestimate.

Upon the petition of the Trustees, an amendment to the charter of the College was made by the Court of Common Pleas of Centre County on November 22, 1875, changing the number of Trustees from 13 to 23 and giving representation on the Board to certain groups not hitherto represented. Under the amended charter, the Governor, Secretary of the Commonwealth, Secretary of Internal Affairs, Adjutant-General, Superintendent of Public Instruction, President of the State Agricultural Society, President of The Franklin Institute, and the President of the College were *ex officio* members. Of the remaining fifteen members, three were to be elected by the alumni, and twelve by a body of electors consisting of the executive committee of the State Agricultural Society, the managers of The Franklin Institute, three representatives of each of the county agricultural societies, and three representatives from each of the manufacturing and mining associations of the Commonwealth. The changes effected in the personnel of the Board were radical. Not only was its membership greatly increased, but the *ex officio* membership was doubled and the State was given a much larger measure of control than had hitherto existed. The most significant change, however, was in recognizing the mechanic arts as having an equal voice with the agricultural interests, and in giving the alumni representation on the Board for the first time. A by-product of the amended charter was to lessen the previous overwhelming influence of the agricultural interests and, in theory at least, to consider the broader implications of the Morrill Act. Incidentally, it gave rise to greater factional differences over the policies to be carried out than had been customary up to this time. It also registered the growing importance of the alumni as a factor in the life of the institution.

An Alumni Association had been organized for some years before it was given representation on the Board of Trustees. On the afternoon of July 28, 1870, a small group had gathered in the Chemical Lecture Room and elected A. A. Breneman, '66, president, and John I. Thompson, '64, secretary-treasurer. A committee was appointed to draft a constitution, though none was actually adopted until 1874, when the organization was named "The Alumni Association of The Pennsylvania State College." It appears that the Association was really an outgrowth of Harvest Home Week. The class of '66 celebrated its triennial in 1869, and held a house party in Old Main. At the second home coming during Harvest Home Week in 1870 sufficient interest had been generated to lead to the organization of the Alumni Association that year. The first Alumni Trustees under the amended charter were James B. Miles, '61, Cyrus Gordon, '62, and H. T. Harvey, '62. Thereafter the alumni met regularly every year and elected one of their number a member of the Board of Trustees. Akin to the alumni movement, and perhaps inspired by it, was a growing class consciousness, which manifested itself in the inauguration of Class Day at the Commencement of 1874, with the usual accompaniment of class tree, class ivy, class song, class history, class prophecy, and class pipe. Class banquets were also held from time to time, either locally or at some not too distant city.

Not until 1877 was a regular army officer detailed to give instruction in military tactics and drill, the first such officer being Lieutenant Walter Howe. The armory was removed from a small room in the basement to the old dining room. Since 1865, military training at the College had been under the charge of various members of the faculty who had seen more or less military service during the Civil War. General John Fraser, as before stated, lectured on tactics and military

regulations. From 1869 to 1875 Professors John Hamilton and John F. Downey, '77, were in charge of the military department, which was not taken too seriously. In 1875, however, a more elaborate system was introduced by Professor Arthur Grabowskii of the Modern Languages Department, with an attempt to carry on with all the organization, regulations, and ceremonies of a military post, the cadets presenting a smart appearance in gray uniforms.

During President Calder's administration some improvements were effected in the physical plant of the College. In 1877 a cottage was built for the residence of the military professor, and in June 1879 the Trustees authorized the construction of the "Old Stone House" as a residence for Professor C. Alfred Smith, '61, though it does not appear to have been completed until 1881. Except for the president's house, it was long the most elaborate residence on the campus. The water supply and sewerage system for Old Main being unsatisfactory, improvements were made in 1877; an artesian well was drilled, and a system of sewers was constructed securing perfect drainage from all parts of the building. A reservoir was dug in the rear of the building on the highest part of the grounds, and into this was pumped water from the artesian well in sufficient quantity to meet all requirements. A number of bath rooms and improved toilet facilities were installed. In 1879 the heating system was overhauled and steam heat was installed throughout the main building at a cost of \$10,000, and \$2000 was expended in the extension and improvement of the laboratories. As a result of these improvements, the floating debt of the College was increased to \$33,000. About this time, also, more attention began to be paid to beautifying the campus, which stood sadly in need of it. In 1873 many trees had been planted on the grounds and a new macadamized roadway to Old Main had been constructed, but the campus

continued to be much neglected, potatoes being raised on the front part of it as late as 1877. It was not until the coming of Professor C. Alfred Smith, '61, of the Chemistry Department, that any marked improvement was made. Professor Smith's aesthetic soul was disturbed by the unsightly condition of the campus, and in 1877 he led a one-man movement for reform. In the spring of 1878 he asked the Executive Committee for permission to take charge of the campus, with authority to make such improvements as he thought desirable. This was granted, together with the use of a mule and a cart from the farm; and later, an additional man and a lawn mower. He secured the services of Johnny Carrigan and was aided by student help. As a result of his efforts, the campus improved rapidly in appearance, the Trustees being so pleased that they readily granted increased appropriations for the work. General Beaver was especially sympathetic toward this improvement, and President Calder, in his annual report, referred with pride to the growing beauty of the campus.

While in many respects the College registered progress under President Calder, there had for some time been a growing dissatisfaction on the part of the Trustees, faculty, and students with the existing order of things. The Trustees were divided among themselves as to the wisdom of the policy pursued by Dr. Calder, and the majority of them thought that the best interests of the institution would be served by a change of executives. This feeling was especially pronounced on the part of those who distrusted the drift away from the early objectives of the College and its gradual transition into a quasi-classical institution. There was a similar line of cleavage in the faculty, among whom a certain group not only felt that the College was an industrial institution only in name, but were determined to make an effort to revise the curriculum. The students, particularly the upperclassmen, com-

plained bitterly about the strictness of the discipline enforced by the faculty and were becoming rebellious under the excessive penalties imposed for petty offenses. President Calder himself appears to have felt the chill of an ill wind rising and blowing in his direction, and to have become conscious that his hold upon affairs was weakening. For one reason or another, or for a combination of reasons, he was no longer in assured control of the situation. Finally, when a legislative committee visited the institution and reported adversely on the College in June 1879, he decided to sever his connection with the institution, tendering his resignation November 5, 1879, though not actually retiring until June 1880. Upon retiring, he removed to Harrisburg and became a lecturer of the State Grange and editor of *The Farmers' Friend*. He died November 22, 1893, at the age of sixty-seven, mourned by a large circle of friends who esteemed him for his many admirable qualities.

In tendering his resignation, President Calder had worded it to take effect at the end of the College year or at such time as his successor might be elected, and his resignation had been accepted January 22, 1880, with that understanding. Meanwhile, the faculty had urged upon the Trustees the undesirability of having a long period in which a vacancy might exist in the office of president. On May 27, 1880, Joseph Shortlidge, Principal of Maplewood Institute in Delaware County, Pennsylvania, was elected president, and assumed his duties July 1, during the Commencement exercises, at which he delivered an address. He promptly exhibited a lack of wisdom, poise, tact, and executive ability, which revealed his unfitness for the position. As principal of an academy he had been reasonably successful, but he was a complete failure as president of The Pennsylvania State College. Conditions were such that only a strong, discreet, and resourceful presi-

dent would have had any chance of success, and this President Shortlidge was not. Hence his administration was short and turbulent, and expired in distress, with the College at a low ebb in its fortunes and in disrepute over the State. He attempted to run the institution as if it were an academy, with the regulations and discipline of such a school, bringing upon himself a revolt of the student body and losing their confidence overnight. His arbitrary actions, uncompromising demeanor, and overbearing attitude toward the faculty aroused their resentment and but served to increase their factional differences.

Except for his brief adventure of some nine months at Penn State, President Shortlidge spent his entire life in secondary education. He had studied a year or two at Yale, but did not graduate, though later, in recognition of his elevation to the presidency of the College, Yale conferred on him in 1880 the honorary degree of Master of Arts. He afterwards admitted that his assumption of the presidency was an error of judgment, just as the Trustees responsible for his election confessed that they also had committed a blunder, and this is about the only thing on which these parties agreed. The most constructive acts of his administration are found in his bringing to the institution Josiah Jackson as professor of mathematics, and W. H. Jordan as professor of agriculture, a service that was well worth while and has half redeemed his fame. President Shortlidge, having become unpopular on all sides, presented his resignation to the Board of Trustees April 8, 1881, to take effect three months from date; but his resignation was couched in terms so offensive to the Board that it was accepted to take effect forthwith, though his salary was paid for the ensuing three months.

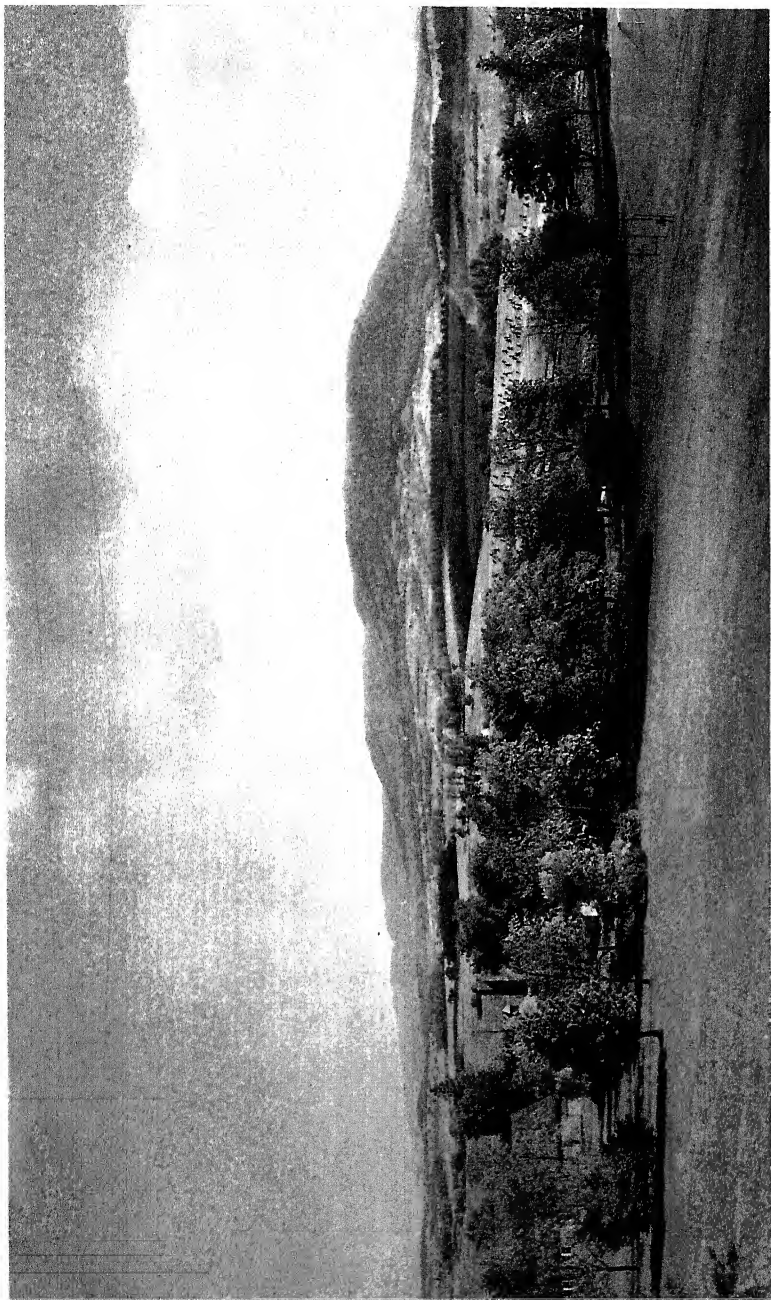
Upon the withdrawal of President Shortlidge from the College in April 1881, Vice-President James Y. McKee was

promptly appointed acting president, and served in that capacity until the coming of President Atherton in the fall of 1882. Professor McKee, who had come to the College in January 1867 as professor of Greek language and literature, served the institution loyally and ably for a quarter of a century as professor, vice-president, and acting president. Four times he served as acting president in times of unusual stress, and at least once he refused the presidency. His sincerity of character, ripe scholarship, and estimable personal qualities, together with his long service to the College, gave him a high place in the regard of the Trustees, professors, and students. He was a fine type of the old-time college professor at his best—scholarly, gentlemanly, interested in his students for their own sake as well as for their work's sake, and in return respected and beloved by them for his character no less than for his attainments.

When Professor McKee assumed the duties of acting president in April 1881, the College was facing a crisis in its internal affairs, and a legislative investigation was in the offing. The criticism and hostility that had arisen against it had reached its climax under President Shortlidge. The number of students was declining rapidly, conditions generally were depressing, and the future looked ominous. Nevertheless, there were some bright spots on the horizon: the curriculum had just been remodeled to conform more closely to the Morrill Act, the College was in better financial condition than it had been for many years, and the period of drifting and experiment was coming to an end. In his report to the Board of Trustees for 1881, Acting President McKee called attention to the fact that a course in mechanic arts had been introduced during the year, and would be enlarged in the immediate future. In July 1881 fifty free scholarships, one for each senatorial district in the State, were established and the terms of

their distribution worked out. In September 1881 a chair of civil engineering was created, with Professor L. H. Barnard in charge of the department, and on May 4, 1882, A. L. Ewing was appointed professor of the newly established Department of Geology and Zoology. Professor McKee was the last of the College executives in the period of the "dark ages"; the dawn of a brighter day was at hand.

Attention is now directed to student life in the period under review. The principal extracurricular activity of this era was the weekly meeting of the Literary Societies. These had lapsed in the Civil War period, but were revived and constituted an important phase of student activity. Baseball was played to a certain extent, and the faculty granted permission to play a match game with Lock Haven on July 4, 1866—the first reference to this game to be found in the records. Another game was played with the near-by village of Boalsburg. The first mention of football is of a game with the University of Lewisburg in 1881. As yet there was no Athletic Association and such sports as existed were casual and unorganized. Social activities were on a very limited scale, consisting chiefly of monthly receptions scheduled by class groups under the watchful eye of the lady principal and lasting from 8:00 to 9:30 p.m. Class suppers were held at intervals at the local hotel, and more elaborate class banquets are mentioned as having taken place at Williamsport. From time to time students were granted permission to make excursions to the mountains, or to attend the county fair. There were no fraternities, no College colors, and no College yell in this period. Students were seated at chapel and at tables in the dining room according to classes, but the first five rows of seats on the ladies' side of the chapel were reserved for the young lady pupils. Students were forbidden to ride or walk with students of the opposite sex or to meet them in the parlor or elsewhere,



MOUNT NITTANY

except on the permission of the president or the preceptress. Daily chapel services were held regularly, with compulsory attendance, and there were preaching services on Sunday. As a result of a series of meetings held at the College in March 1875, a Christian Association was organized in April of that year, the name being changed later to Young Men's Christian Association. Its first meetings were held in the chapel, but in September 1877 special rooms were given for its use on the first floor of Old Main. Until 1873 all students (except the day students) were required to room and board in Old Main, the College having been conducted hitherto on the general plan of a boarding school, but permission was now given students to room and board outside the College grounds. This soon led to the abandonment of the boarding department entirely, though for some years private boarding clubs were allowed to use parts of the building for their operations.

Faculty minutes reveal that students were no more angelic in those days than they are now, and were quite as much given to all manner of pranks and offenses. Among the offenses against College discipline were the following: leaving the campus to visit neighboring towns without permission, stamping feet and keeping time in chapel, taking mules from the stable at night, stealing chickens, besmearing banisters of stairways with molasses during public meetings, going off gunning during study hours, taking oil from hall lamps and filling them with water, hazing freshmen, throwing water from windows on persons walking below, being drunk in Bellefonte, plugging keyholes of rooms, fighting and carousing, and so forth. Penalties varied all the way from a reprimand by the president to expulsion from the College. For minor offenses a favorite mode of punishment was to forbid the offender to sit with his class at chapel or at table, and to require him to sit on the front seat in chapel and at other public per-

formances. Then, as now, the fertile minds of offenders were very inventive in devising alibis for their sins of omission or of commission. One student, for example, requested to be excused from German on the ground that it aggravated his stammering, while another wanted to be excused from drill because, as he alleged, it was developing his combative nature, besides (as an afterthought) injuring his health. One student, called on the carpet for going to Bellefonte without permission, stated that he went there to get money to pay his bills. A hard-hearted faculty refused to accept these alibis and imposed appropriate penalties.

A retrospective glance at the period under discussion reveals certain of the Trustees and professors who were conspicuous figures in this era. Besides the presidents, who have already been characterized, we note that Frederick Watts and H. N. McAllister continued for some years to give their best endeavors to the College, which owes them an eternal debt of gratitude. Judge Watts served as President of the Board of Trustees from 1855 to 1874, when he resigned on account of the pressure of work which prevented his attending further meetings; and McAllister served from 1855 to his death in 1873. Upon the death of Mr. McAllister, General James A. Beaver, who was his son-in-law and law partner, was elected to succeed him as Trustee, and, upon the retirement of Judge Watts, became President of the Board, and so remained until elected Governor in 1882. He continued as Trustee, however, until his death in 1914, and was again President of the Board from 1897 until his death. Colonel Francis Jordan, as Secretary of the Commonwealth from 1867 to 1873 was ex officio a Trustee, and upon retiring to private life was elected a member, serving as President of the Board from 1882 until 1896. A. Boyd Hamilton, though serving as a Trustee for only three years, was recognized as an able and

useful member, whose resignation was received with regret. A. O. Hiester and James Miles were original members of the Board, the former serving from 1855 to 1874, and the latter from 1855 to 1866, or until the death of each, respectively. Judge John H. Orvis of Bellefonte became a highly useful Trustee in 1875, and served till his death in 1893. Cyrus Gordon, '66, one of the first three alumni members of the Board, served from 1876 to 1901. All of these men were active and useful members of the Board, giving freely of their time and effort to promoting the interests of the College.

Outstanding professors of the period were James Y. McKee, John Fraser, C. Alfred Smith, '61, George C. Caldwell, J. T. Rothrock, A. A. Breneman, '66, W. A. Buckhout, '68, and John F. Downey, '77. Men who came at the end of the period and belong rather to the Atherton era were Charles F. Reeves, '78, I. Thornton Osmond, Josiah Jackson, and Whitman H. Jordan. Moses Thompson continued to act as treasurer of the College until 1874, when he was succeeded by John Hamilton. Mr. Hamilton was long a conspicuous figure in the life of the College as superintendent of the farm, professor of agriculture and military instructor, financial agent, business manager and treasurer, and alumnus Trustee. In 1880 he resigned his position as professor of agriculture to devote himself to the business affairs of the College, which he served loyally and ably for more than forty years.



*THE COLLEGE FALLS
ON EVIL DAYS*

1879-1882

FROM THE BEGINNING the College had been afflicted with its full share of troubles, but now these accumulated thick and fast. If we were writing romance instead of history, it would be easy to drop a tear upon this phase of our subject and erase it from our narrative. Since, however, it is an essential part of the history of the College, candor compels its insertion. After all, it was but the darkest hour before what was to be the dawn of a brighter day. If the institution was called upon to pass through a period of drifting and experiment culminating in attacks and investigations on every hand, what matters it if the net result of it all was to bring it back to its true course, to strengthen its foundations, and to start it upon a career of uninterrupted progress?

Like all public institutions, the College had been repeatedly subjected to criticism and attack, but never before or since to so great an extent as now. It had experienced many vicissitudes of fortune, but now was facing the most serious crisis in its history. Everything connected with the institution was the occasion of criticism, attack, even ridicule. Fault was found with the Trustees, the faculty, the student body, the location of the school, the curriculum, and the management of the experimental farms. This came from many quarters, but the most serious threat to the institution sprang from the

legislative investigations. Much of the criticism was undeserved, though some of it doubtless had a real basis and was justifiable to that extent. One of the most insistent forms of dissatisfaction lay in the conviction, widely existing and loudly expressed, that the College had departed from its original purpose and had become to all intents and purposes a classical institution. While this was not altogether true, there was quite enough truth in it to invite attack from those who were disposed to be unfriendly. Indeed, this particular objection, fundamental in its nature, was found not only in the outside public, but perhaps among a majority of the Trustees and the faculty within the College itself. In his mistaken policy, President Calder had sown the wind and the institution was now about to reap the whirlwind. Had his successor in office measured up to his high station, the situation might have been saved, but he served only to bring the school into further disfavor and to add fuel to the fires of criticism burning fiercely on every side.

Within the short space of three years (1879-1882) troubles multiplied as never before: President Calder resigned under pressure, President Shortlidge served nine distressful months and retired under fire, the student attendance declined to a handful, debts accumulated, the College was attacked by the Grange and by the press, two legislative investigations were held, the Trustees conducted an investigation on their own account, and the whole course of instruction was remodeled. Driven off its course by unskillful pilotage, the College entered the storm on an uneven keel, but even at the height of the gale righted itself, got back on its true course, and finally emerged with a new pilot whose eye was keen and whose hand was sure.

Out of the atmosphere of distrust enveloping the College arose two legislative investigations. The first of these was the

Investigation of 1879, when the Legislature, by joint resolution approved April 25, appointed a committee to investigate the College and the experimental farms. Though this particular investigation was rather superficial, it was undertaken in an unfriendly spirit and its adverse report appears to have been largely the outgrowth of prejudice, if not actually predetermined. Dr. Calder, then president, tells of its casual nature when the committee visited the College on May 2, 1879. He says their visit was not unwelcome and that every courtesy was shown them, but they spent only four hours at the College, one of which was spent in eating and smoking. They visited none of the classes, nor did they set foot on the experimental farm. The books of the institution were thrown open for their inspection, but they went through only a perfunctory examination. They asked a few questions of President Calder and Vice-President McKee, no other member of the faculty being summoned. In the evening they held another session at Bellefonte, where the hotel accommodations were better and liquid refreshments were more plentiful; and here General Beaver and several members of the Board testified. Later they held four other sessions, two of which were at Harrisburg and two at Pittsburgh; here also the accommodations were good and there was no lack of liquid refreshments. On June 5, 1879, the committee submitted their report to the Legislature. They found no evidence of fraud in connection with the handling of the funds of the institution, for the simple reason that there was none. The committee declared, however, that the College had been badly managed; that the location was unsuitable, as was the building; that the agricultural department was a failure; and that "the State has never received and is not now receiving benefits at all commensurate with the amount of money appropriated to said institution." They also reported that the number of professors was out of

all proportion to the number of students in attendance. Most serious of all, they asserted that "the trustees have signally failed to carry out the object for which the magnificent land grant was given by the United States and which was further sought to be accomplished by most liberal appropriations on the part of the State."

In connection with the above report, Mr. A. J. Ackerly, chairman of the committee, offered in the House a resolution instructing the State Treasurer to pay no more money to the College until it should give satisfactory proof of its compliance with the Morrill Act and with the several acts of Legislature relating thereto, "nor until such time as this and succeeding Legislatures shall be fully satisfied that the agricultural and mechanical interests of the State are receiving from such college actual benefits which are commensurate with the amount of money expended for its support and maintenance." Mr. Ackerly's resolution passed the House, but failed in the Senate. Though the situation was saved for the time being, the position of the College was none too secure, and the fight on it was renewed at the next session of the Legislature.

The head and front of the antagonism to the College stemmed from the Eastern Experimental Farm Club, whose headquarters were at West Grove in Chester County. The principal spokesman of this group of malcontents was one Alfred Sharpless, who, under the pen-name of "John Ploughshare," in the fall of 1880 published in the *West Chester Local News* a series of articles bitterly assailing the College in general and its management of the Eastern Experimental Farm in particular. These articles were widely read throughout eastern Pennsylvania and were very injurious to the College, despite the fact that their injustice was exposed by the friends of the institution. Not content with mere words, however, Sharpless and those associated with him proceeded to

take action. At a meeting of the Club held January 13, 1881, they secured the adoption of a report ordering a form of petition to be circulated over the State for signatures. The report alleged that the Trustees had injuriously changed the character of the College from its original design, and that its unfortunate location and previous bad management had always rendered it unpopular, with no hope for probable future usefulness. It concluded by saying: "Inasmuch as large sums have been spent on this institution without adequate return, therefore we suggest further that you recommend to the Legislature to substitute some better managed or more popular institution as the recipient of this land-grant fund, by endowing a professorship of agriculture and mechanical arts, or in such manner as the Legislature may deem best."

The general idea of these men was that the College had departed from the purpose of its founding and had neglected the interests of the farmers by becoming a classical school of such a character that those for whom it was originally intended were not disposed to patronize it. They complained that the College had failed to maintain the experimental farms adequately, and that the plans for experiments on them were not practical, making them the laughing-stock of practical farmers; and that the affairs of the College were extravagantly and inefficiently managed. Therefore a further drain on the State Treasury to maintain it was unjustifiable, and it should be abandoned.

Out of this movement grew a convention called to assemble at Philadelphia on February 16, 1881, with the avowed purpose of effecting "some plan for a more equitable distribution of the funds now accruing to the Pennsylvania State College through legislative appropriation," and alleging that the College had failed to meet the ends for which it was established or to perform the functions required by the condi-

tions of the appropriation. The convention was composed mostly of farmers from the counties of Bucks, Montgomery, Chester, Delaware, and Lancaster, in eastern Pennsylvania, where the movement centered. George Blight, chairman of the gathering, declared the object to be to direct the appropriation to some more practical end. The convention adopted unanimously a series of resolutions setting forth that the College had been unwisely managed for many years, as shown by continuous lack of extended patronage and by numerous petitions to the Legislature for its abandonment. In short, it was claimed that the College had failed to live up to the conditions under which the appropriation was granted, especially in the conduct of the experimental farms. The adverse report of the legislative committee of investigation of 1879 was endorsed, and it was demanded that further appropriations to the College be withheld until benefits were received commensurate with the money expended.

Early in the legislative session of 1881 Mr. Nathan Garrett of Delaware County introduced into the House a joint resolution of the same tenor as that presented by Mr. Ackerly in the previous session of the Legislature. It directed that the \$30,000 annual appropriation be withheld until there should be a showing of results commensurate with the amount of money expended. This resolution had all the earmarks of having been inspired by the malcontents of Chester County, and was supported by the petitions secured through the instrumentality of the Eastern Farm Club. Little attention was paid to it at first, but when the adverse report of the legislative committee of 1879 was read on the floor of the House, the interest of the members was awakened and they proceeded to adopt it by an overwhelming majority. When, however, the bill came up for consideration by the Senate Committee on Finance, General Beaver appeared in behalf of

the College and made such an able and eloquent presentation of its claims that the committee voted to let the matter drop.

Although the joint resolution failed of passage, discussion of it had served to focus attention on the College in such a way as to give it an unenviable notoriety before the public, and to add to the swelling chorus of criticism to which it was being subjected. While the bill was pending, the Philadelphia press displayed a hostile attitude toward the school, joining in the hue and cry against it. The general tenor of the editorials and news articles was to the effect that the College had not lived up to the requirements of the Morrill Act and of the Pennsylvania laws relating thereto, and that it was largely a failure. It was freely asserted that the money expended by the State on the College might be better employed, since there was no adequate return for it. One correspondent even went so far as to say that there was an impression among the members of the Legislature that the College was "a magnificent swindle."

The Legislature and the press were but reflecting the attitude of the agricultural interests of the Commonwealth which had been at the root of the movement directed against the College. There can be no doubt that the farmers of the State were persuaded that the school was not carrying out an adequate program of agricultural education, and that it had lost sight of the purposes for which it was created. They themselves had lost sight of the larger scope of the institution expressed and implied in the Morrill Act, to be sure, and insisted that it was intended to be an agricultural school pure and simple, whereas it was much more than that. Yet their ignorance of the Morrill Act did not make them the less vociferous in maintaining their own opinions, which found expression through all the channels at their command. Thus in 1878 the Pennsylvania State Agricultural Society, which re-

garded the College as its child, expressed dissatisfaction with the character of the course in agricultural education, and suggested certain changes to make it more effective. The experimental farms were the objects of special criticism, since much had been expected of them and but little actual benefit had been received.

Dissatisfaction expressed itself also through the medium of the Grange. This organization, which was rather strong in the State, was at first friendly to the College, but later became one of its severest critics. President Calder had cultivated friendly relations with it and had attended some of its meetings. In 1878 the State Grange adopted unanimously a favorable report of a committee previously appointed to visit the College and observe its operations. The report praised the College highly and commended it to the patronage of the public in general and of farmers in particular. It found that "the instruction here seems to be of a solid nature. The female student is prepared for a matron, instead of a parlor ornament. The male student is fitted to be a man, instead of a fashionable loafer." This was no finical college, but stood for the dignity of labor. Meanwhile, President Calder, who had been popular with the organization, resigned, the College was in bad repute, and a change came over the spirit of the Grange. At its meeting in December 1880, it adopted a series of resolutions of a highly critical nature regarding the College. These resolutions, which were presented to the Trustees by Leonard Rhone, Master of the Grange and himself a Trustee, began by deploring the isolated location of the College, "destitute of such common aids to civilization as churches, printing presses, railroads, and telegraphs." They then set forth that the institution was founded especially for the education of the industrial classes, particularly farmers, and called upon the Trustees to "at once terminate the protracted and inexcusable defici-

encies in the department of agriculture." They declared the three "so-called experimental farms" to be unworthy of their name and a reproach to the State, and demanded "immediate reformation in the purposes, economy, and methods of their management."

From the foregoing narrative it will be seen that the College, under fire from all sides, had indeed fallen on evil days and that something had to be done to retrieve the situation. At the regular semi-annual meeting of the Board of Trustees in January 1881, serious consideration was given to the question of what action should be taken in the premises. It was decided to attempt reform from within, and a resolution was adopted appointing a committee of five members of the Board to visit the College at an early date for the purpose of making a thorough investigation of its condition, needs, and operations. The committee was instructed to consider specifically the means of increasing the efficiency of the College as a technical institution, together with what courses of study should be remodeled and what additional courses should be adopted. It was further directed to take under advisement the question of the desirability of abolishing the Preparatory Department, and to consider what changes, if any, should be made in the faculty and its methods of work. Finally, President Shortlidge having complained that certain members of the faculty were guilty of insubordination and having demanded their retirement, the committee was instructed to ascertain whether or not the charge was sustained by the facts. The committee, which consisted of J. P. Wickersham, Victor Piolett, S. W. Starkweather, J. M. Campbell, and Cyrus Gordon, '66, was expected to make a prompt investigation and report. Nevertheless, though appointed in January, the committee did not bring in its report until April. The delay was due in part to the fact that Wickersham, chairman of the

committee, resigned from the Board soon after his appointment and hence did not serve on the committee; and partly, it would appear, because it was a period of excitement and stress, and action was delayed in the hope that certain adjustments would render the investigation more satisfactory in its results.

Meanwhile, certain members of the faculty were dissatisfied with existing conditions and wanted a reorganized curriculum. There were divergent opinions in this body, some of whose members were content with the policy of a classical institution, while others wanted to bring the College back to its objectives as an industrial school by remodeling its courses with this in view. The latter group welcomed the investigation by the Board and became impatient over the delay. One member of this faction, in a letter to General Beaver, President of the Board, gave vent to his feelings as follows: "After twenty-two years of experimenting, we are today the laughing-stock of the State. As an industrial college we *are* a failure. When the complaint is made that we do so little for agriculture, the reply is that we are no longer exclusively agricultural. Unfortunately we are nothing *in particular*." He then went on to say that the College had no distinctly marked policy and that unless it was reorganized it must continue to be a failure and its funds would eventually go to some other institution to further the agricultural and industrial interests of the State. Another leading member of the faculty described the College curriculum as being wholly inadequate to the needs of the situation, especially the agricultural and scientific courses, to say nothing of the absence of an engineering department. He also referred to the incompetency of President Shortlidge and the alienation of the student body.

Under the leadership of a few resolute and aggressive

members of the faculty who held such views as we have described, a radical revision of the curriculum was effected. This proved to be of the utmost significance in the history of the College, not only in the existing emergency but for many years to come. In referring to it a decade later, President Atherton said: "A very important rearrangement and enlargement of the courses of study was made (in 1881) by the Faculty and approved by the Trustees, which may be said to mark a distinct epoch in the educational organization of the College, and one from which may be dated a new era in its growth." In 1880 the College had no course in the mechanic arts or in engineering, its principal work being a classical course and a scientific course such as were found in the small liberal arts colleges of the time; there was also an agricultural course, differing only slightly from the scientific course. By 1882 the curriculum had been overhauled and remodeled throughout, with the result that it was essentially changed in character. When the reorganization was completed, there were two general courses, the scientific and the classical; four technical courses, agriculture, natural history, chemistry and physics, and civil engineering; and practicums in mechanic arts. This reorganization, reminiscent of the plans of President Pugh and President Fraser, served not only to differentiate The Pennsylvania State College from other colleges in the State, but to bring it into line with the true intent of the Morrill Act. Furthermore, it strengthened the hands of the College in answering the attacks of its foes, especially in refuting the charge that it was not carrying out in good faith the intent of that act. Finally, it paved the way for President Atherton and marked the beginning of a forward movement which has gained momentum with the years, as he himself generously acknowledged.

The initiative in this work of reform was taken by Pro-

fessors Osmond and Smith, though their efforts were discouraged by both President Calder and President Shortlidge. The matter of revising the courses of study was brought to the attention of the faculty by Professor Osmond, who secured the appointment of a committee, consisting of himself as chairman and Professors Jackson and Campbell, to devise a new scheme of instruction. It turned out, however, that Professor Campbell, whose chair was Latin, and Professor Jackson, whose chair was mathematics, were not in sympathy with the idea of changing the curriculum; hence the committee drifted along without accomplishing anything. Professor Osmond now attacked the problem in a different way by enlisting the support of other members of the faculty, especially of Professors Smith, Buckhout, McKee, and Jordan, through whose cooperation the reorganization was accomplished. Considerable interest in the matter was displayed also by Cyrus Gordon, '66, alumnus member of the Board of Trustees. Finally, the reorganized curriculum, devised in this unorthodox manner, was submitted by Mr. Gordon to the Trustees at a meeting held April 8, 1881, when it was approved in principle in its then somewhat tentative form, with instructions to present it in final form at the regular meeting of the Trustees in June following. At the June meeting of the Board it was approved and a committee was appointed, consisting of Acting President McKee and Professors Osmond and Jordan, in conjunction with the Executive Committee of the Board, with power to put it into effect "so that the results of their labors may appear in the next catalogue." This was accordingly done, and the new curriculum was in full force when President Atherton assumed the duties of his office.

At the memorable called meeting of the Board of Trustees April 8, 1881, other matters of importance which had been in process of maturing came to a head and were disposed of

with vigor and dispatch. At this meeting the Committee of Investigation appointed by the Board in January brought in its report; the plan of reorganization of the curriculum was adopted in principle; President Shortlidge resigned; a committee was appointed to nominate a new president of the College; an understanding was reached with the faculty as to their future action; and the Executive Committee was authorized to memorialize the Legislature to appoint a committee to investigate the affairs of the College.

The committee appointed by the Trustees to investigate the condition and needs of the College arrived on the scene April 3, 1881, and spent three days prosecuting their inquiries. The report begins by saying that the College "has not done in the past and is not now doing the work that was intended by its founders, and has not taken that position among the educational institutions of the country to which it is entitled as The Pennsylvania State College," the principal cause for this failure being financial embarrassments, now largely removed. It found that dissensions in the faculty had hindered progress, and that a further obstacle had been the undue emphasis on the classics at the expense of other and fundamental courses of study. Radical changes should be made in the Preparatory Department, which should be kept separate from the Collegiate Department; more attention should be given to the study of horticulture, now practically abandoned; and cooperative boarding clubs should be encouraged as a means of reducing student expenses. Administrative duties of the president of the College and of the members of the faculty in relation thereto should be more clearly defined; the authority of the president should be diminished and that of the faculty increased. The sale of the Eastern and Western Experimental Farms was recommended. The efficiency of the College as a technical institution should

be increased by the addition of technical courses "and the completion and equipment of the mechanic arts shops at present contemplated." No evidence of insubordination to the president on the part of the professors was found; and it would be "inexpedient at this time to make any changes in the president or other members of the faculty, a matter, however, which might be considered further and reported upon at the next meeting of the Board in June." President Shortlidge interpreted the report as a reflection on himself, and resigned immediately. At an adjourned meeting that evening the Board authorized the Executive Committee to petition the Legislature to investigate the affairs of the College.

The reasons prompting the Board to ask for a legislative investigation were stated by General Beaver in the formal memorial presented to the Legislature April 14, 1881. This stated that, inasmuch as it had been alleged that the College was not complying with the Morrill Act and the Acts of Assembly relating thereto, the Board of Trustees of The Pennsylvania State College requested the appointment of a committee to investigate its affairs. The desire was expressed that the investigation be thorough, including "the entire scope, methods, plans, and operations of the institution in all its varied departments." Whereupon the Legislature promptly agreed to a joint resolution appointing a committee of thirteen, consisting of five members from the Senate and eight members from the House, to investigate the affairs of the College as prayed for in the memorial. The resolution was approved by Governor Henry M. Hoyt on April 28, 1881.

On October 5, 1881, the committee met and organized by electing Senator C. T. Alexander chairman, and George W. Hall secretary. A sub-committee of five, consisting of Amos H. Mylin, C. T. Alexander, John C. Newmeyer, George W. Hall, and William B. Roberts, was chosen to conduct the

active investigation and to report its findings to the general committee. The investigation occupied the sub-committee at intervals between October 4, 1881, and June 29, 1882, though its report was not presented to the Legislature until February 1883. It held open sessions at Harrisburg, State College Bellefonte, West Grove, and the Western Experimental Farm in Indiana County. Every opportunity was afforded to friends and foes alike to appear and testify. The published report of the committee, covering 381 pages, was submitted to the Legislature February 8, 1883. The investigation served not only to bring into the limelight the criticisms, animosities, and prejudices relating to the College, but also to assemble a mass of material comprising a sort of rough history of the institution down to that time. Much of the testimony of the malcontents smacked of hearsay, but some of it showed that there had been real grounds of complaint. The witnesses included all classes of people representing all shades of opinion. Among these were Trustees, professors, and alumni of the College; former managers of the Eastern Experimental Farm; and representatives of the group petitioning the Legislature for the abolition of the College, or at least for withholding its endowment. Everybody had his day in court and spoke his mind, sometimes with unconcealed animosity toward the College. Fortunately for the College, it had, as noted above, recently reorganized its courses of study and therefore was in a position to refute the most serious of the charges against it—that it was not conforming to the Morrill Act and to the laws of the State relating thereto. It withstood the attacks of its enemies creditably and came through the investigation vindicated and strengthened.

Having completed an exhaustive investigation, the committee made a report of its findings, the net result of which was favorable to the College. With reference to the courses of

study, it declared that these "are by far more extended and complete than at any previous time in the history of the College, and seem to comply, in the fullest sense, with the requirements of the laws of Congress and of this State." As regards the financial management of the institution, it found that the testimony warranted "the fullest confidence in the perfect integrity with which all the funds have been expended and accounted for"; and it took pride in the fact that "no shadow of suspicion of dishonesty rests upon the administration of this great public trust." The appropriations were applied to the uses for which they were intended and the funds of the College had been "honestly and judiciously administered." With respect to the experimental farms, which had been the occasion of the greatest amount of criticism, the committee experienced some difficulty in arriving at a conclusion, but recommended that the Trustees be authorized to sell them and to apply the proceeds to the support of an experiment station.

Though recognizing that the College had long been subjected to "an amount of public criticism, which has resulted in a wide-spread distrust, if not hostility, towards it," they nevertheless were of the opinion that most of the antagonism grew out of a condition of things no longer existing and was therefore not now justifiable. The committee were convinced that the College was fulfilling in good faith the trust committed to it by the State, and that much of the misconception relating to it was due to a lack of information. They felt that it had passed its worst days, and that "whatever mistakes it may have made in the past, the entire spirit and work of the institution, as now organized and administered, are directed to the promotion of industrial education." They further declared that, although the College in its organization was a private corporation: "it is in every proper sense the child of

the State," which "should give it such fostering care as will make it not only an object of just pride, but a source of immeasurable benefit to our sons and daughters."

Thus the legislative investigation resulted in the vindication of the College, thereby proving the wisdom of the Trustees in asking for it. The institution had weathered the storm, and brighter days were in prospect. The period of drifting and experiment was now definitely at an end. From this time forth, the history of the College is a story of progress. Difficulties will be encountered, of course, but these will be surmounted and the trend will be ever onward and upward.



*THE FORWARD
MOVEMENT BEGINS*

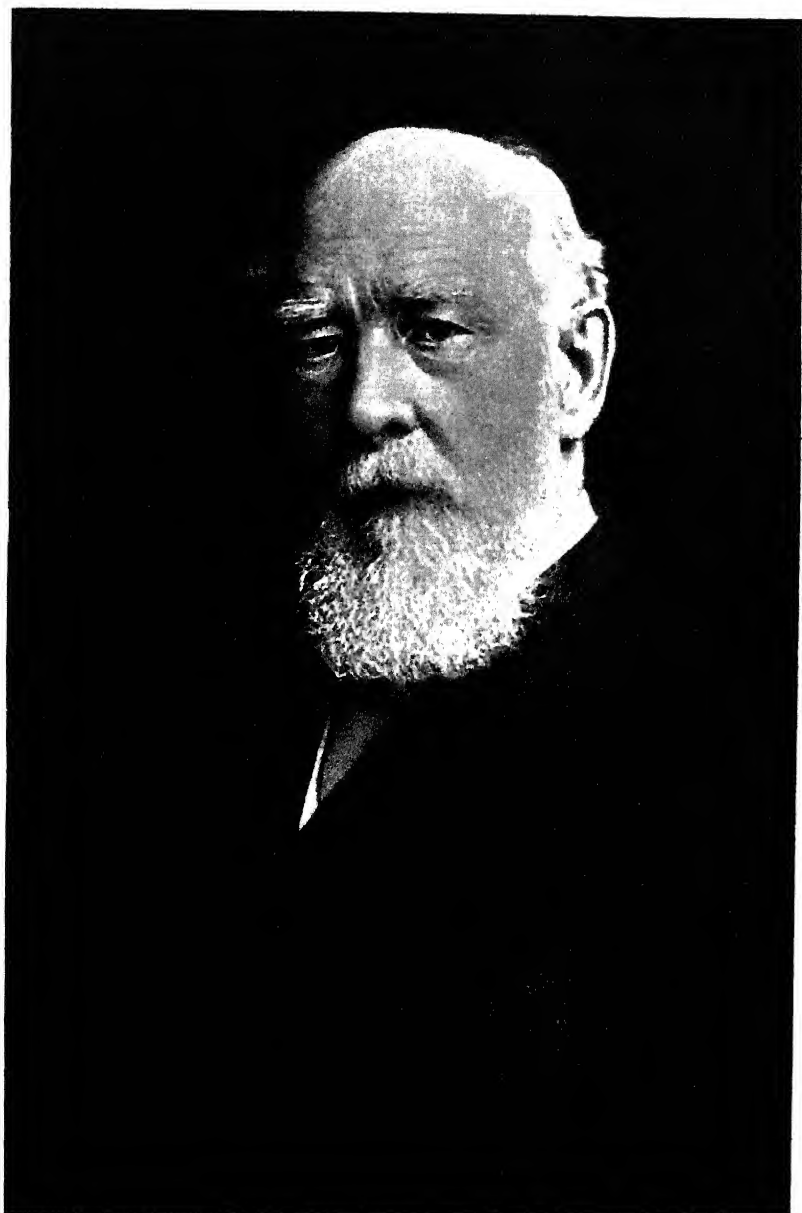
1882 - 1892

THE PERIOD of drifting and experiment came to a close with the election of President George W. Atherton in the summer of 1882. This was the turning point in the history of the institution, from which is dated the beginning of a forward movement that was destined to gather momentum with each passing decade down to the present time. It was the beginning of a new era in which the foundations of the College were strengthened and broadened in a way to support the superstructure of a great educational institution. When he said, "All beginnings are hard," Thucydides spoke a great truth which has often been exemplified in the story of individuals, of institutions, and of nations; and so it was in the history of Penn State, which came up the hard way as one of the pioneers in the new type of industrial education. It was hard to convince the doubters of the wisdom of the new venture, hard to win support against the sanctions of tradition, hard even to secure recognition from the State for the child which it had adopted and had pledged its faith to maintain. Penn State was not the pampered child of the Commonwealth, but a neglected stepchild to whom support was given inadequately and grudgingly.

Although the College had survived all the vicissitudes through which it had passed, its foundations were none too

secure and its prospects none too bright when President Atherton took charge. Even its policies were not definitely determined. Its patronage was small, its physical plant inadequate and unattractive, its reputation unsavory. Save as the legislative investigations gave it an unpleasant notoriety, it had never been widely advertised, most people in the State being unaware even of its existence. Except for President Pugh, it had been unfortunate in its selection of the presidents of the institution, who had not measured up to the requirements of the office. It was heavily in debt, constantly experiencing difficulty in meeting even its most pressing financial obligations.

Despite all these disturbing factors, the condition of the College in 1882 was really better than at any previous time in its history. The fires through which it had passed had not consumed it, but had served only to purify it of its dross and thereby to strengthen it. It had learned much by the process of trial and error; especially had it learned the lesson of remaining true to its genius as a land-grant college. If for a time it had wavered in its policy and had thereby lost the confidence of its constituency, it now wavered no longer, nor would it ever do so again. Its financial position had been greatly improved by the Act of 1872 converting the receipts of the land sales into a fifty-year bond of \$500,000, and by the Act of 1878 appropriating \$80,000 for the purpose of paying off the mortgage on the College property. The legislative investigations were over, and the courses of study had been reorganized to conform more closely to the requirements of the Morrill Act. Hence, notwithstanding the trials of the past, the College was unquestionably in a better position for a forward movement than ever before in its history. That which now mattered most was the choice of a president with gifts of leadership; upon this everything seemed to depend. Being



GEORGE WASHINGTON ATHERTON
President of the College 1882-1906

well aware of this, the Trustees were determined to exercise unusual care in selecting a president and, as the event proved, they were particularly fortunate in choosing George W. Atherton, one of the outstanding educators of his time.

In April 1881, the Board of Trustees appointed a committee, headed by General Beaver, to nominate a candidate for the presidency of the College. This was the day, it will be recalled, when the Board had accepted the resignation of President Shortlidge and had appointed Professor James Y. McKee acting president until the vacancy should be filled. More than a year passed before the nominating committee was ready to bring in a recommendation, but on June 28, 1882, they presented to the Board the name of George W. Atherton, professor of political science at Rutgers College. He was unanimously elected president at a salary of \$3000 per annum and the use of the president's house and grounds, with \$250 appropriated for expenses of removal. Professor Atherton, who had been invited to the College for conference, was notified of his election and was introduced to the members of the Board. He conversed with them freely about the condition and prospects of the College and, after thanking them for the confidence reposed in him and assuring them of a prompt reply, withdrew.

At a meeting of the Executive Committee of the Board held at Bellefonte July 17, 1882, Dr. Atherton was present and informed the committee of his decision to accept the presidency. He called the attention of the committee to the desirability of advertising the College, and secured from them authorization for the printing of a thousand copies of a circular he had prepared for distribution among educators, Grange officers, and others. He was further voted the sum of \$1500 to advertise the College in fifteen of the leading newspapers and in such religious, scientific, and agricultural journals of the

State as he might deem advisable. At his suggestion, the faculty was requested to provide a special two-year course in agriculture and in chemistry, and to prepare a list of high schools, academies, and normals, whose graduates would be admitted to the freshman class on certificate and without further examination. The Executive Committee must have been impressed with the initiative, judgment, and aggressiveness of the man who had just accepted the presidency and was letting no grass grow under his feet; it was something new in their experience, as refreshing as it was rare, and augured well for the future of the College.

Dr. George W. Atherton, seventh president of Penn State, served in that capacity for twenty-four years, his administration looming large in the history of the College, of which he may be regarded as, in some sense, the second founder. At least, he made the foundations deeper, broader, and stronger than they had ever been before, and erected thereon a superstructure which proclaims him a wise master builder who knew well how to plan and to execute. Undismayed by obstacles, he met every challenge with faith, courage, and superb ability.

President Atherton was born at Boxford, Massachusetts, June 20, 1837. When a boy of twelve, the death of his father left the family in such circumstances that he was thrown largely on his own resources to secure an education. He worked in the cotton mill and on the farm, aided in the support of his widowed mother, and earned enough money to pay his way through Phillips Exeter, graduating with the class of 1858. Entering the sophomore class at Yale in 1860, he left to join the army at the outbreak of the Civil War, and was commissioned a lieutenant in the Tenth Connecticut Infantry. Later he was promoted to a captaincy, but, his health failing, he returned to Yale, where he was graduated with the

class of 1863. After teaching for some years at the Albany Boys' Academy in New York, at St. Johns College in Maryland, and at the University of Illinois, he became professor of political science at Rutgers College, where he labored with conspicuous success for fourteen years until called to the presidency of The Pennsylvania State College, at the age of forty-five. While at Rutgers he studied law in his spare time and was admitted to the New Jersey bar. He also took an active interest in politics and ran for Congress on the Republican ticket in 1876, but was defeated in the election. The breadth of his interests is further shown in that he served in 1873 and in 1891 as a member of the Board of Visitors of the United States Military Academy, and in 1875 was appointed by President Grant as a member of the commission to investigate charges against the Red Cloud Indian Agency. Dr. Atherton was very active in all measures relating to the interests of the land-grant institutions, and bore a leading part in securing support for the Hatch Act, the Second Morrill Act, and the Adams Act. He stood high in the councils of those working for the advancement of the land-grant colleges and universities, and was looked upon as a leader in these matters by his fellow-workers. In 1887 he was chosen chairman of the commission appointed by Governor Beaver to make an investigation respecting the subject of industrial education and to bring in a report to the Legislature. He was a member of the College and University Council of the Commonwealth, and was one of the group of college presidents who founded the Honorary Society of Phi Kappa Phi.

President Atherton possessed a strong character and an impressive personal appearance. Always dignified in bearing and calm in counsel, he was yet sanguine in temperament and enthusiastic in carrying out his well-considered plans. Reserved in demeanor and somewhat lacking in geniality, per-

haps, he nevertheless commanded the respect and admiration of the Trustees, the faculty, and the student body, as well as of the politicians with whom he came in contact, all of whom recognized in him a wise, energetic, and resourceful leader of unusual ability. At all times he looked and acted the part of a college president who could hold his own in any gathering. In writing or speaking he always weighed his facts carefully and expressed himself in clear, forceful English, impressing his hearers not so much by his eloquence as by the thought and content of his speech. His views were comprehensive and he grasped the details of administration with a strong hand, pursuing with tireless energy his cherished ambition to build up a great institution worthy of the imperial Commonwealth of Pennsylvania.

With such gifts of leadership, Dr. Atherton could not be otherwise than active in projecting the plans, policies, and objectives of his administration, and it is to these that our attention is now directed. Though entering upon his duties as president of the College in the fall of 1882, he was not formally inaugurated until Commencement Week in 1883. Both the Commencement and the inauguration were by far the most elaborate of any that had taken place up to that time, but our interest centers in the inaugural address of Dr. Atherton as indicating his plans and policies for the College, as well as his idea of the educational tendencies of the times. This is of particular significance inasmuch as these policies, developed more fully later to be sure, were to mould the College to a great extent through the next quarter of a century and, in no slight degree, even down to the present time. Taking as his topic "The Place of Industrial Training in the System of Higher Education," he weighed the claims of the old and the new in education, asserting that the starting place of the former was that education in the specific sense "is primarily

a training of the man for himself rather than a specific preparation for his actual employments," and that it assumed that the best subjects to furnish the basis of such training are the ancient languages, mathematics, and philosophy. While admitting that these subjects are well worth while, he asserted that such an education "no longer meets the demands of our actual condition," because modern industries were coming more and more to avail themselves of the resources of science and were being conducted "in accordance with the facts and processes which are ascertained by scientific investigation." Conditions change from age to age, and the education of youth must change with them. In discussing the relation of the Land-Grant Act to higher education, he declared that this act had done more to promote the interests of liberal scientific education than any other single act in the history of the country, and that the institutions it brought into being, though still in their infancy, had already aided immensely in the development of the material resources of the land. The indirect influence of these institutions was, if possible, even more profound. They had pioneered in the field of scientific life and industrial education and had met an urgent and increasing demand, which the established system of classical instruction did not and could not satisfy. This situation had resulted in a revolution in the American system of higher education within the past twenty years. The new institutions had met the demand for practical education to such an extent as to change the direction of the whole educational thought of the country.

President Atherton, now as always, gave a broad interpretation to the Morrill Act, maintaining that its intent was not only to teach those branches of learning relating to agriculture and the mechanic arts, but to provide a liberal education for the industrial classes, who hitherto had been neg-

lected. To his mind, the term "liberal education" meant the best the schools could furnish, but it should also be practical in its application to one's pursuit in life; and it should be as wide as the field of human industry itself. The Pennsylvania State College, organized under the broad and magnificent charter of the Morrill Act, had passed through a period of trial and experiment, but was now fairly in line with the best experience and thought of the educational world. While the College would continue to keep its practical aim constantly in view, it would also "endeavor to secure that harmonious and symmetrical development of all the faculties which distinguishes the thoroughly educated from the half-hearted. Not simply the artisan, but the scholar; not simply the scholar, but the man."

The principles and policies set forth by President Atherton in his inaugural address were further elaborated from time to time as occasion required. Thus, in his first annual report to the Board of Trustees in January 1883, he declared it to be the purpose of the College authorities to carry out the plain provisions and intent of the laws under which they derived their authority by resolutely insisting upon making it an industrial and scientific rather than a classical and literary institution. This was not to be interpreted, however, as abolishing classical studies, though these could not become the leading object of the College. In this report he also came out strongly for placing the "mechanic arts" on a parity with agriculture among the primary aims of the College. Though noting the fact that, up to the time of the acceptance by the Legislature of the Morrill Act of 1862, the work and aims of the institution had been exclusively in the direction of agriculture, he called attention to the fact that this act placed the mechanic arts specifically on the same footing with agriculture as a branch of learning. Later, as we shall see, he

emphasized in his pronouncements the desirability of devoting greater attention to the development of the liberal arts in the interest of a well-rounded education, even for technical students, and also because there was a growing demand for these studies on the part of the industrial classes themselves, who saw no reason why they should be barred from a liberal education in a college supported by public funds. In his own mind, Dr. Atherton came to think of the College as an institution whose destiny was to become a great State university, the capstone of the public school system of Pennsylvania, reaching out in all directions to render the greatest possible service educationally to the people of the Commonwealth. He was well aware of the latent possibilities of the institution, and labored diligently to bring these to fruition.

Although the policies of President Atherton were wisely conceived, he was alive to the fact that difficulties were bound to arise in carrying them out, especially in view of the distrustful attitude toward the College existing in many quarters throughout the State. One of the problems he was to encounter, and one which was to plague other presidents to a greater or less degree, was the persistence of the idea that the function of the College was merely that of an agricultural school. Since it had been founded as an agricultural institution in the first instance, there were always people who insisted on regarding it as such and resented every attempt to broaden its scope. These people, who had their spokesmen on the Board and in the Legislature, overlooked the fact that the College was now operating under the provisions of the Morrill Act, which broadened its scope to include the mechanic arts on an equal basis with agriculture, and further included military tactics along with "other scientific and classical studies." This, and not the outgrown charter of 1855, was the foundation upon which the College now rested,

and it was broad enough to erect thereon a great university—the goal towards which Dr. Atherton was working. He envisaged the school, not as it then was—a poor, weak thing—but as it was destined to become, and he labored to persuade others to see this as he saw it, realizing that not the least part of his work as president was to educate the public and the Legislature along these lines. He believed that if the work of the College were once known to the public for what it really was, confidence in it would increase, the patronage would be built up to creditable proportions, and financial support would be forthcoming.

There were obstacles to be surmounted in reaching the desired goal. Besides the lack of recognition accorded the College by the Legislature and the public, there were other problems to be solved. The reputation of the College throughout the State left much to be desired and its appeal was slight, even to its legitimate constituency. The physical plant was hopelessly inadequate, and there was urgent need for new and attractive buildings. When President Atherton took charge, there were only eighty-seven students in attendance and only twenty-two counties were represented. The school was mainly a local affair with a large percentage of the students from the immediate neighborhood, and the greater part of these were in the Preparatory Department, there being only thirty-seven students in the collegiate department. Bristling with difficulties, the situation was such as might have discouraged a less resolute and resourceful man than the new president. Believing that the College had a mission to perform, he took counsel of his courage and struck out boldly. At the first regular meeting of the Board of Trustees after he had assumed the duties of the presidency, he secured a hearty endorsement of his policies as set forth in his first annual report, obtained authorization for the establishment

of several new courses he proposed, and was empowered to appoint a library committee. A new course was charted for the College, and there was to be no more drifting with the tide; there were, however, breakers immediately ahead that would subject the skill of the pilot to a severe test.

When the Trustees met at Harrisburg at the regular semi-annual meeting of the Board in January 1884, the situation appeared to be quite promising. The reports of the president and of the professors in charge of departments had called attention to the increased attendance of students and to the growing interest manifested in the College on the part of the public. The report of President Atherton pointed out further the pressing need for more money for salaries and equipment, and recommended a modest increase of the floating debt to meet the existing emergency. At this juncture Governor Robert E. Pattison arose to offer a resolution calling for the reduction of the number of professors by one-half. Doubtless, most of the members of the Board were dumbfounded by this startling proposal, which, if adopted, would have proved ruinous to the College. The situation was saved for the time being by the adoption of a substitute motion appointing a committee, consisting of Governor Pattison, President Atherton, and Dr. E. E. Higbee, Superintendent of Public Instruction, "to examine the list of professors and professorships and report what changes, if any, should be made."

The committee thus appointed brought in its report at a special meeting of the Board at Bellefonte on March 25, 1884. A majority report, signed by Governor Pattison and Superintendent Higbee, and a minority report, signed by President Atherton, were presented to the Board for consideration. Disclaiming any disposition to reflect upon the faculty or the management of the College, the majority report declared that the only object was to consider the

present financial condition of the institution and its relation to the agricultural interests of the Commonwealth. The gist of the report is found in the recommendation that the faculty be reduced from sixteen to twelve, that the study of the classics be abolished, and that additions be made to the agricultural staff in the form of a "Lecturer on Agriculture" and a "Professor of Veterinary Science." President Atherton's minority report called attention to the fact that the resolution under which the committee was appointed was based on the proposition that the faculty should be reduced by one-half, and that it did not contemplate a change in the organization of the College. The report of the majority, however, went beyond that and proceeded on the idea of "so recasting the organization of the College as to make it exclusively agricultural," thereby making sweeping changes in the status of the institution. This idea was erroneous, Dr. Atherton maintained, in that it failed to meet the requirements of the Morrill Act, which provides not only for instruction in agriculture but in the mechanic arts and in liberal arts as well. Furthermore, the scheme recommended by the majority report was even less satisfactory as a working plan: it made no provision for instruction in the mechanic arts and drawing; proposed the abandonment of civil engineering as a distinct department; eliminated the principal of the Preparatory Department by assigning his duties as an adjunct to the work of one of the other professors, a thoroughly impractical arrangement; abolished the position of lady principal, without which no department for women could be maintained; and did away with the chair of physics, which is vital to any well-equipped institution.

Having called attention to these omissions and to the general unsatisfactory and impractical nature of the majority plan, Dr. Atherton offered a substitute plan providing for a

staff of thirteen, which included a principal of the preparatory department, a lady principal, and one assistant. The expenditure involved for the president and teaching staff under this plan amounted to \$15,500 per annum, which was only \$1220 more than that proposed by the majority report. President Atherton further declared that the course of instruction he had outlined met the demands of public opinion, as manifested by the patrons of the school and others. The demand for courses in agriculture was slight, and but few students elected to take them, whereas there was a growing demand for other branches of study contemplated by the Morrill Act. If the College was to have students it must provide "such courses of study as will be attractive to young men and women who wish to make the most of themselves, or, otherwise, such persons will go elsewhere for the advantages they are denied here." Finally, the plan proposed by the majority report "would disappoint the final expectations of the great body of our friends, and would be a long step backward." After it had been amended to combine the chairs of mathematics and civil engineering into one, the minority report, as presented by Dr. Atherton, was adopted by the Board by a vote of nine to five. The manner in which the president met this crisis at the outset of his administration serves to show very well the wisdom and firmness he could exercise on occasion, no less than the courage he displayed in standing up for his views when he considered the welfare of the College at stake. Had he yielded here, though confronted by the Governor and the Superintendent of Public Instruction and their satellites on the Board, the result could not have been otherwise than disastrous to the College, which would have suffered a blow from which it would have been difficult ever to recover.

Governor Pattison, who served as the chief executive of

the Commonwealth from 1883 to 1887, and again from 1891 to 1895, was at first not in sympathy with the College, about which he was not well informed. Previous to the above episode, he had already displayed his hostility in a caustic message to the General Assembly, vetoing a bill which the College had caused to be introduced into the Legislature to establish an experiment station at the College farm, and providing for the sale of the Eastern and Western experimental farms. In his veto message the Governor stated that the past history of the College was not such as to induce the belief that any practical good would ever come from it; that it never had the support and confidence of the people; and that "the farming communities of the State are absolutely indifferent about the existence of this College and do not believe it to be of any use." A similar bill, modified with a view to meeting the objections of the Governor, was passed at the next session of the Legislature, but this also was vetoed on the ground that the history of the College did not justify spending any more money on it; and that "it has not been productive of any practicable results commensurate with its cost," and its remote location was unsuitable for the establishment of an experiment station.

That the Governor of the Commonwealth should thus express himself about the State College and should, as an ex-officio Trustee, propose to reduce its faculty by one-half, is ample evidence of the low estate to which the College had fallen in public estimation and of political influences hostile to it. A partial explanation of the attitude of Governor Pattison is found in the gubernatorial election of 1882 when he, the Democratic candidate, had defeated General James A. Beaver, the Republican candidate. Inasmuch as General Beaver had long been prominent in the affairs of the College as president of the Board of Trustees, his opponents had made

his connection with the institution an issue in the campaign, which happened to coincide with the legislative investigation of 1882 when the College was under fire. The result was that Governor Pattison had conceived an unfavorable opinion of the College and had shared in the misconceptions regarding it and its work. He was in reality a man of large ability and was one of the outstanding governors of Pennsylvania, but at first he knew very little about the College and was sincere in believing it to be a failure. It is due him to say, however, that, when better informed, he completely changed his attitude and, in his second administration, became a warm friend and stout champion of the College, as we shall see.

A conspicuous contribution made by President Atherton to the development of the College was the service he rendered in strengthening its foundations and broadening its scope. Attention has been called to the changes effected in the courses of study on the eve of his election to the presidency, and to his hearty approval of these changes as bringing the institution more into line with the true intent of the Morrill Act. He was, however, as noted above, confronted at the outset of his administration by the proposal to reduce the faculty by one-half in the interest of converting the College into an agricultural school. Although he had taken a firm stand against such a perversion of the work of the institution and had been able to ward off this particular threat to its progress, it was a task of considerable magnitude to maintain his position in the face of legislative indifference and distrustful public sentiment. Nevertheless, he ever strove to strengthen the foundations on which the College rested, being persuaded that only by this means could it fulfill its mission. He was motivated not only by the consideration that it was the duty of the College authorities to carry out the provisions of the Morrill Act, broadly interpreted, but also by the desire to

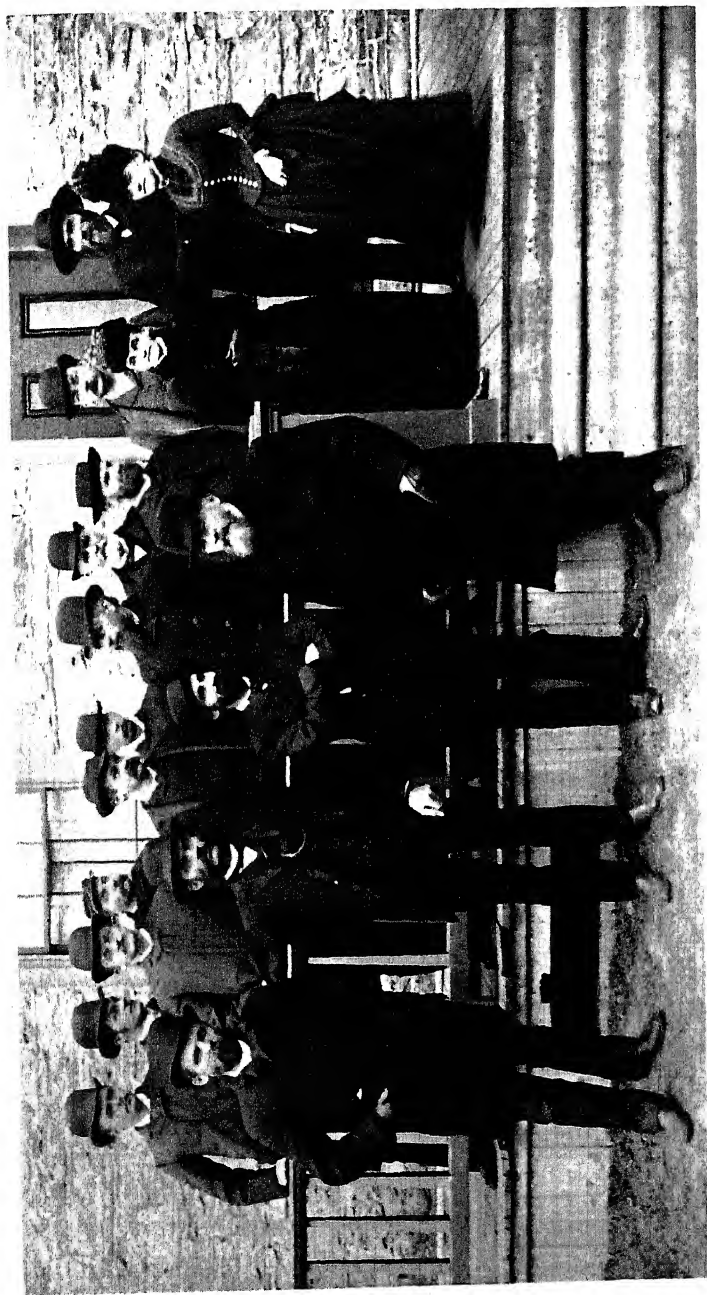
build up the patronage of the institution. There was very little demand for the agricultural course, but a growing demand on the part of the students for courses in the mechanic arts and in liberal arts subjects. In order to augment the student body by furnishing, within the framework of the Morrill Act, such courses as would meet the popular demand, it was essential not only to provide these courses, but also to educate public opinion to this view. It appeared that the public had formed the erroneous opinion that Penn State was an institution designed merely to give instruction in agriculture. If this were true, then it was high time that these misconceptions be removed and that public sentiment be moulded to the idea that here was a college adapted to those who wanted to study agriculture, to be sure, but that this was only one of the various branches of study offered by the institution. The College was prepared to give other courses, no less important and more largely sought after, in engineering, mining, and the liberal arts. At least this was the direction in which it was moving and the goal at which it aimed. The unfriendly attitude of Governor Pattison in the beginning delayed temporarily the carrying out of this program fully, but did not remove the conviction of President Atherton respecting the soundness of his policy nor did it dampen his ardor in seeking to carry it out. Hence we find him constantly endeavoring to develop the mechanic arts, first in the direction of engineering and then of mining, while at the same time working towards a strong course in the liberal arts. The College had experimented with the idea of making the institution exclusively agricultural, and also with the idea of converting it into a near-classical college, and both of these policies had signally failed. Not only was the foundation on which they rested too narrow, but in neither case were the provisions of the Morrill Act carried out. Dr. Atherton's position in the

matter was entirely logical, and in the end was fully sustained. With an unsympathetic governor, however, and with the public filled with misconceptions as to the true character of the institution, progress in the immediate future was slow; nevertheless, the trend was constantly upward.

In broadening the scope of instruction, changes in the curricula were made from time to time in the period under review. It will be remembered that these had been reorganized in 1882 to include two general courses known as the scientific and the classical; and four technical courses designated as agriculture, natural history, chemistry and physics, and civil engineering. Except for the fact that the classical course was subdivided into the Latin-scientific course and the classical course, this system continued under President Atherton. By the close of the decade under discussion, the curricula had been further modified by substituting a general science course for the classical course, and by enlarging the technical courses to include mechanical engineering and electrical engineering. Of these courses the most popular were those in civil and mechanical engineering, and the least popular was agriculture; and the next most popular were those in chemistry and physics, and electrical engineering. The non-technical courses were strengthened by establishing a separate chair of English and rhetoric. A general view of these changes in curricula will show that the policy of President Atherton with reference to the development of the mechanic arts was being implemented in the creating of courses in mechanical and electrical engineering, in strengthening the work in chemistry and physics, and in meeting the demand for a liberal education by expanding the general science course and the Latin-scientific course. The problem of attracting students for agriculture was eventually solved by the establishment of an experiment station under the

Hatch Act. A striking fact in connection with the enlarged scope of instruction is that the College did not attempt to establish a theoretical system, but sought rather to meet definite and urgent demands as these presented themselves. This method furnished a convincing answer to those who might be inclined to question the wisdom of the changes made in the curricula.

The year 1887, half way through the first decade of President Atherton's administration, was a landmark in the history of the College. In the preceding five years, progress, though steady, had been slow, but thereafter the advance was at an accelerated pace. In fact, 1887 may be regarded as the year from which dates the real beginning of the forward movement at Penn State. In this year Congress passed the Hatch Act appropriating substantial sums of money for the establishment of experiment stations in the land-grant colleges; the General Assembly of Pennsylvania passed an act appropriating \$100,000 to the College for the erection of buildings and for other purposes, and an additional act authorizing the sale of the Eastern and Western Experimental Farms; and General Beaver, president of the Board of Trustees, became Governor of the Commonwealth, thereby assuring the College a friend at court. In this year the remodeling of Old Main was begun and electric lights were installed throughout the building, and the hegira from the building itself got under way. From this year also dated the first student publication, the *Free Lance*, and a general movement began for the development of student activities. The next few years were to mark a change so great and along so many different lines as practically to revolutionize the life of the College. Not all of these changes occurred immediately, to be sure, but at this time the forces which were to bring them about were set in motion, and this was their starting point. The most significant factor in the whole



PRESIDENT ATHERTON AND THE FACULTY, 1887

Back row (left to right): Cleaver, Pague, Heston, Jackson, Reeves, McKee. Middle row: Davies, Bohn, Butz, Herrick, Frear, McElwain, Gorsline. Front row: Reber, Osmond, Buckhout, President Atherton.

situation, however, was the fact that, for the first time in its history, the College received an appropriation for maintenance, thereby establishing a precedent for such appropriations, which have continued to be made regularly ever since, being the principal resource of the institution in carrying on its work. The long fight for recognition was won at last.

The legislative appropriation of \$100,000 granted by the Act of May 13, 1887, was due in part to the efforts of President Atherton and the Trustees, in part to the influence of Governor Beaver, and in part to a more favorable public sentiment resulting from the belief that the College was meeting public expectation more fully than in the past. Hitherto, the Legislature had never taken the institution very seriously, had not seemed to feel its responsibility for the execution of the trust it had assumed in accepting the Morrill Act, and had not interested itself to ascertain the needs of the school. In 1887, however, the State entered upon a new era in dealing with the College, whose claims were now considered on their merits. The long period of indifference and neglect had come to an end. Heretofore, with the exception of a small frame building erected in 1886 for mechanic arts, all the work of the institution had been carried on within the dungeon-like precincts of Old Main. In this single building were crowded together all the lecture rooms, dormitories, society halls, boarding club, chapel, library, armory, and everything else required for the work of the institution, besides five families of professors. When in 1887 the attention of the Legislature was called to the situation and a careful examination of the most pressing needs had been made, a substantial appropriation was granted with which to begin the work of reconstruction.

At various times in its history, especially when friendly governors were induced to sign exceptionally large appropriation bills, Penn State has entered upon building programs of

considerable proportions; the first of such periods was now at hand. Prior to this, a small beginning had been made in the erection of a temporary frame building to house the Department of Mechanic Arts. This modest building, costing but \$3800, including its furnishings and equipment, was dedicated February 10, 1886, beginning the hegira from Old Main and being something apart from the building program which started in 1887 and extended over a period of about five years. This expansion was made possible by legislative appropriations of \$100,000 in 1887, \$127,000 in 1889, and \$150,000 in 1891. The financial condition of the College was further improved by being relieved of the incubus of the outlying experimental farms, which had been a continual drain on the treasury. These were now sold for \$17,000 and the proceeds were invested in State bonds, the interest on which was paid regularly to the College thereafter.

At its meeting in June 1887, the Board of Trustees authorized the executive committee to erect such buildings as were provided for by the legislative appropriation of that year; to reconstruct the stairways of Old Main and to install electric lights in the building; and to engage the services of an architect to draw plans for the new buildings and to supervise their construction. The committee gave immediate and careful consideration to the subject of the new buildings, and adopted a general plan of establishing them on a line in the rear of Old Main, with dwelling houses on a line east of that building. John Hamilton and Charles W. Roberts were appointed a building committee from the Board, and F. L. Olds was employed as architect. The first of the new buildings to be erected was the Botany Building, to be followed in order by the Experiment Station Building, the Armory, the Chemistry and Physics Building, the Ladies' Cottage, six professors' residences, and finally by the Engineering Building. In addi-

tion to these buildings, the College erected in this period a new barn, two cottages, a conservatory (attached to the Botany Building), a boiler house and steam plant, a station barn and dairy house, and reconstructed Old Main. From 1887 to 1893 inclusive, the expenditure for buildings was \$303,500, and for equipment about \$102,000. Considerable money was expended also for repairs and for grading the campus. The grand total for all of these items was \$452,220. To the Trustees, professors, and student body, this seemed to be a very large sum of money, as indeed it was for those times.

In his report to the Trustees for 1889, Dr. Atherton dwelt with pardonable pride upon the extent and variety of the changes which were being effected in the physical plant of the College. The Agricultural Experiment Station had been provided with "a new and elegant building fitted up with offices, laboratories, library and other necessary rooms, which amply provide for all present and prospective needs." The Chemistry and Physics Building, nearing completion, would be "sufficient for at least double the number of students present." The Armory was "one of the best drill halls in the country," with suitable office, reception, and gun rooms, "and with stage and dressing rooms suitable for use when the hall is occupied for large public occasions," besides being equipped with ample gymnastic apparatus. The Botany Building was "not merely a most pleasing addition to the campus, but such an enlargement of facilities as to place the work of that department upon a highly satisfactory footing." As for Old Main, it had undergone "an almost magical change" by the removal of the dark and forbidding stairways and the erection of others broad and well-lighted, along with the enlargement of the halls and the introduction of electric lights throughout the building, and "especially by the practically new construction of a large and beautiful chapel taking in two stories of the central wing."

The Ladies' Cottage was, by reason of "the beauty and convenience of its location and the picturesque effect of the structure . . . , the most attractive building on the grounds." The new professors' houses "have given very great relief to the crowded condition of the main building, besides adding immensely to the comfort of the families concerned." Two fraternity houses had also recently been erected. In view of these improvements, the president was of the opinion that no friend of the institution could fail to appreciate "the total revolution that has recently taken place in its condition and prospects under the judicious action of the Trustees, seconded by the liberality of the Legislature."

The climax of the building program in this period was reached several years later, however, in the erection of the Engineering Building. In 1891, in the second administration of Governor Pattison, the Legislature made an appropriation to the College of \$150,500, of which amount \$100,000 was earmarked for the erection of a building to house the engineering departments. This building, much the most elaborate of any that had been constructed on the campus up to that time, was a handsome three-story structure built of red brick with brown stone trimmings, and had a floor space of two and a quarter acres. Work was begun on the foundation in the summer of 1891, and the building was completed in the fall of 1892. It was dedicated with elaborate ceremonies on February 22, 1893, with Governor Pattison and other notables present and delivering appropriate addresses. With the completion of the Engineering Building the first important building program of the College came to an end, and almost a decade was to elapse before another construction era was to get under way in the closing years of President Atherton's administration.

While the building program was being carried out, Congress passed two acts of vital importance to the land-grant

colleges. The first of these was the Hatch Act of March 2, 1887. The purpose of this act was to establish experiment stations under the direction of the land-grant institutions for the purpose of promoting "scientific investigation and experiment respecting the principles and applications of agriculture," and to diffuse among the people "useful and practical information on subjects connected with agriculture." For the carrying out of these purposes, the sum of \$15,000 per annum was appropriated to each State, out of which first annual appropriation an amount not exceeding \$3000 might be expended toward the erection of a building for the work of the station; and thereafter an amount not exceeding five per cent of such annual appropriations might be so expended. Prior to the passage of this act, some agricultural research had been carried on at the College and its results had been published, but the scope of such work had necessarily been limited owing to lack of funds. The appropriation received under the Hatch Act, together with an appropriation of \$3000 made by the Legislature in 1887 for this purpose, enabled the College to establish a full-fledged experiment station upon a distinct footing as the principal feature of the work in the Department of Agriculture of that day. The station was organized by the appointment of the following officers: director, H. P. Armsby; vice-director and chemist, William Frear; botanist, William A. Buckhout, '68; horticulturist, George C. Butz, '83; superintendent of farm, William C. Patterson; laboratory assistant, H. J. Patterson. As noted above, a suitable building for the offices and laboratories of the station was erected and put into use in 1889. The establishment of the experiment station on a substantial basis was an important event in the history of the College. It has always been ably manned and has gained deserved prestige throughout the country for the admirable results it has accomplished.

Of no less significance than the Hatch Act was the Second Morrill Act passed by Congress in 1890, supplementing the original Act of 1862. The purpose of this measure was to provide for the more complete endowment and maintenance of the land-grant institutions. By this legislation each State received \$15,000 for the year ending June 30, 1890, which sum was to be increased by \$1000 annually until the yearly appropriation for each State reached \$25,000. The money was to be expended exclusively for "instruction in agriculture, the mechanic arts, the English language, and the various branches of mathematical, physical, natural and economic science, with special reference to their applications in the industries of life, and to the facilities for such instruction." The financial assistance rendered by this act was especially timely in the case of Penn State, inasmuch as it coincided with the completion of the new buildings and the increase of the student body, which necessitated greater expenditures for the maintenance of the physical plant and for the enlargement of the teaching staff. The funds thus received were immediately applied to strengthening some of the courses already established and to adding new ones. The Executive Committee proceeded at once to appoint a professor of agriculture and an additional instructor in civil engineering, and to establish a Department of Mining and a Department of Industrial Art and Design. Thomas F. Hunt, of the University of Illinois, was appointed professor of agricultural chemistry, and Anna E. Redifer, of the Pennsylvania Museum of Industrial Art, was appointed instructor of industrial art and design; and \$4000 was voted to establish a Department of Mining Engineering.

In the decade under discussion there were various Trustees who contributed largely to the forward movement characterizing the period. Among these were General James A. Beaver, Colonel Francis Jordan, Judge John H. Orvis, Charles W.


Roberts, John Hamilton, H. V. White, John A. Woodward, Gabriel Hiester, Cyrus Gordon, Samuel R. Downing, Amos H. Mylin, and S. W. Starkweather. All of these men were devoted to the interests of the College, to which they rendered conspicuous service of lasting value. They were also in hearty accord with the policies of President Atherton and supported him with enthusiasm in his difficult task. Fortunate in the possession of men of this type as Trustees, the president leaned heavily upon them for aid and counsel, and they never failed him. The faculty also, although undergoing various changes, was maintained at a high level of ability, and rendered devoted service to the College. A relation of mutual respect and confidence existed between President Atherton and his faculty—a circumstance which went far toward making his administration a success. He was a good judge of men and selected his faculty with care, his choice seldom falling on one who failed to measure up to his position. Those whose names are best remembered in this period are Professors McKee, Buckhout, Reeves, Osmond, Josiah Jackson, Jordan, Reber, and Barnard. Professors Armsby, Frear, and Pond came to the College towards the close of the decade, but their more significant work belongs to the later Atherton and Sparks administrations. All of these men rendered notable service to the College and, by reason of their ability as teachers and their long service in the institution, attained the proportions of traditions, whose memories are cherished by their colleagues and by the students who came under their instruction.

In the period under review, the student body increased from 87 to 244, which is sufficient evidence of the growing popularity of the College, once it had become firmly established and its true character better known to the public. This increase was gradual at first, not reaching beyond 150 students

until the session of 1887-88, which, as we have seen, was a sort of milestone in the history of the College in many ways. In the session of 1889-90 the 200 mark was passed for the first time, with an enrollment of 201. In the following year it was 209, but thereafter it increased rapidly. The policy that had been adopted with reference to the type of instruction to be offered had at length begun to bear fruit. In this period the number of graduates at Commencement ranged from 3 to 10 until the class of '89, which had 14, but the class of '90 numbered 20, the largest in the history of the College up to that time. There was always a sprinkling of graduate students, but the graduate work attained no considerable proportions until a later period, the means being lacking to put it on a firm basis. President Atherton's hands were so full of other matters, deemed more urgent, that he was unable to make a serious attempt to develop the graduate work of the College to any great extent.

A great transformation had taken place in the status of the College within the brief space of ten years; the whole situation had been radically changed for the better. The institution had been refounded on a stronger basis, its scope of instruction greatly enlarged, its physical plant revolutionized. The faculty had increased from 17 to 30, the student body from 87 to 244, the number of counties represented from 22 to 42. The school was growing in favor at home and abroad, winning its fight for recognition at the hands of governors and legislatures, and of the public generally, with accompanying appropriations for maintenance and buildings. Congress also had passed two measures rendering substantial and continuing financial aid. The financial condition of the institution, no longer precarious, rested on firm foundations. A long stride forward had been taken, an irresistible movement had begun, a new era had dawned; the present was satisfying, the future promising.

These happy results were recognized by the Board of Trustees, which, at its regular semi-annual meeting in June 1892, adopted a hearty and unanimous resolution expressing appreciation of the services of President Atherton. Attributing "the unexampled growth and prosperity of the Institution" chiefly to "the eminent ability and arduous, faithful, untiring labors" of Dr. Atherton, the Board gave tangible proof of its regard by voting him a four months' leave of absence to take a trip abroad at the expense of the College. Feeling the need of rest and recreation, he accepted their gracious offer and toured Europe, returning refreshed in body and spirit, and ready to take up his work with renewed hope and confidence. His was the joy of accomplished purpose; but, not content to rest upon his laurels, he girded up the loins of his resolution for the larger task that lay ahead of him. The extent to which he succeeded in this will appear in the following chapter.



*THE FORWARD MOVEMENT
GATHERS MOMENTUM*

1892-1907

IF THE FIRST DECADE of President Atherton's administration marks the beginning of a strong forward movement in the history of The Pennsylvania State College, the remaining years of his presidency may be described as the story of an accelerated progress in which the movement gathered such momentum as to carry the institution forward upon a course of increasing prosperity and usefulness. The College had now passed well out of the critical period when even its survival was problematical, and had become one of the more important institutions of learning in the Commonwealth. Firmly established at last, it had gained sufficient recognition from governors and legislatures to insure regular appropriations for its support, and sufficient favor among the people to warrant the expectation of increasing patronage. Now in his prime and with a record of achievement behind him, President Atherton moved forward with confidence. Fourteen years yet remained to him to carry out his plans, which, while always comprehensive, were also practical and were never pushed beyond the point where accomplishment was possible. He had the happy faculty of being able to maintain a nicely adjusted balance between the ideally desirable and the practically possible, recognizing fully the limitations which the latter placed upon the former.

In the period now under discussion the scope of instruction was broadened still further, especially by strengthening the work in the liberal arts in the interest of a more liberal type of education than that derived from a study of exclusively technical subjects. In the eternal argument over the question as to the place of the liberal arts in a land-grant institution, President Atherton took his stand squarely upon the platform that such studies should have an important place in these colleges. He maintained that such courses should be offered not only because the State College was under obligations to furnish a type of education suited to all classes of the people, but also because a liberal education was desirable for technical students as making them better engineers, chemists, and agriculturists. In attempting to broaden the scope of instruction by placing mechanic arts on a parity with agriculture, he had run counter to the views of those who wanted to make the College a purely agricultural institution, but he had gone ahead nevertheless and inaugurated courses in the mechanic arts. Now that he undertook to strengthen the work in the liberal arts, he ran counter, of course, to those interests which wished to make the College a purely technical institution. Hence there remained the necessity of further educating the Legislature and the public as to the true intent of the Morrill Act and of removing the misconceptions regarding it. This also Dr. Atherton accomplished in time, but it was no easy task.

That President Atherton was committed to the policy of broadening the scope of instruction to include more extensive work in the liberal arts is made very clear by his repeated references to the subject in his annual reports to the Board of Trustees. Thus, in his report for 1891, he argued that more attention should be given to such branches of study as mental and moral science, logic, economics, and history "unless

the College is to abandon the field of general education and become an exclusively technical institution. Such a course would, in my judgment, be exceedingly unfortunate." He then went on to say that students who desire to pursue such subjects "have as good a right to expect to find them in a State institution as to find those studies which lead more directly to industrial pursuits." He was of the opinion that "purely technical studies require to be broadened and liberalized by combination with those more humanizing branches of learning which deal with man himself rather than with his material surroundings." In his report for 1894, he stated that "not all students wish to become engineers or chemists," but that the demand for extended courses in biology, history, language and literature, and economics was active and urgent, the number desiring to take such courses increasing every year. He held that the State institution which failed to provide as amply for that class of students as for those preparing for the industrial professions "does an injustice to a great body of youth by rigidly limiting and narrowing their choice of studies, and disregards the highest interests of the State itself." Being persuaded that the work in the liberal arts should be placed upon as secure a footing as that in the technical subjects, he was of the opinion that if the College could not now enlarge its work in all directions, it should hold the technical work "at its present level and concentrate on developing the liberal arts subjects." He found an additional reason for such a policy in the necessity of providing instruction demanded by women, who had equal rights with men, but cared little for technical subjects. In his report for 1898, he expressed the hope that the subjects of general education would be developed "as fully and efficiently as the technological side already is."

Finally, at the turn of the century, he declared that the

value of liberal studies as a part of the training of technical students was coming to be more generally recognized in the educational world, and that there were certain such studies "without which no man can be regarded as educated, even in the narrowest sense, and a knowledge of which is absolutely indispensable in enabling one to make the most extensive technical training fully available." The net result of this process of educating the Trustees and the public in the idea of the importance of liberal arts studies in the State College was to secure a liberalizing of the curriculum along these lines. At the close of President Atherton's administration in 1906, full courses were being offered in English language and literature, psychology and ethics, German, romance languages, Greek and Latin, history and political science, rhetoric, and music, requiring the services of twelve professors and instructors. Furthermore, the School of Language and Literature had been created, with a dean in charge. While this was only a partial recognition of the claims of the liberal arts for a rightful place in the work of the institution, it was a long step forward in the right direction, and would never have been accomplished but for the far-sighted policy and untiring efforts of President Atherton.

While the enlargement in the work of the liberal arts was taking place, there was an even greater expansion in the technical departments of the College. There was considerable development in the engineering courses in this period. At its meeting in June 1893, the Board of Trustees authorized the division of the Department of Physics and Electrical Engineering into two departments, the former remaining in charge of Professor Osmond while the latter was transferred to the new engineering building and placed in charge of Professor J. P. Jackson, '89. Electrical engineering soon became the most popular course in the College. In 1893 the Legislature

made an appropriation for establishing a Department of Mining Engineering. This provision was carried out promptly by the Board of Trustees in the appointment of Professor Magnus C. Ihlseng, of Golden, Colorado, as head of the new department. In 1896 the School of Mines was created, with Professor Ihlseng as dean, but owing to lack of funds for the development of the work, it reverted to the status of a department in 1899 and so continued until its re-establishment as a school in 1906. Upon the resignation of Professor Ihlseng in 1900, Dr. M. E. Wadsworth was appointed professor of mining, and later Dean of the School of Mines when re-established in 1906. Throughout most of the period under review, however, its status was that of the Department of Mining Engineering. The engineering courses were much the most popular of any offered by the College in this period, accounting for about three-fourths of the enrollment in the latter part of the eighteen-nineties.

The Agricultural Experiment Station featured the work in agriculture in these years, though there was a respectable number of students in agriculture and related subjects such as botany, horticulture, agricultural chemistry, dairy husbandry, and forestry. Of these, the courses in dairy husbandry were the most popular. Three short courses in agriculture were offered by the close of the period; these were given in the winter months, with a wide range of subjects to be chosen. Although no special preparation or examinations were required for admission and anyone with a good common school education could take these courses with profit, their enrollment was not large. Other technical courses which developed considerably in this period were those in chemistry, botany, biology, and physics. Chemistry, in particular, under Professor Pond, and botany, under Professor Buckhout, gained great prestige in the institution and abroad because of

the ability of these renowned scholars and teachers. By the end of President Atherton's administration there were fifteen curricula offered by the College, each of which was a four-year course leading to a degree. Of these, ten were technical courses in agriculture, biology, civil engineering, electrical engineering, mechanical engineering, mines and mining, chemistry, industrial chemistry, physics, and mathematics; and five were non-technical, consisting of a general science course, a classical course, a course in modern language and literature, a Latin-scientific course, and a course in philosophy. Besides these regular curricula, there were six short courses—three in agriculture, one in chemistry, one in mining, and an elementary course in mechanics. The classical course led to the degree of Bachelor of Arts, and that in modern language and literature to the degree of Bachelor of Letters; all the others, to the degree of Bachelor of Science.

The scope of instruction was further broadened in this period by the development of correspondence and extension courses. In 1892 a Chautauqua Course in Agriculture was established by the College. When first given, this course consisted only of textbooks recommended for home study, the student being expected to report when ready for examination. Later, the method of instruction was changed by sending out lessons supplementing the textbooks; and in 1898 the name was changed to "Correspondence Courses in Agriculture." The courses could be taken by anyone and might begin at any time. The only expense involved was the purchase of the textbooks and the cost of postage for the student's share of the correspondence: there was no charge for enrollment or instruction. By 1906 the work had grown to the point where correspondence courses were offered in twenty-five subjects, with about 4500 students enrolled. A beginning was also made of extension work. In his report for 1900-01, President

Atherton stated that several members of the faculty and of the experimental station staff had been employed regularly during the winter in attendance at the series of Farmers' Institutes held throughout the State. This type of work, while proving to be a somewhat serious interruption of regular college duties, met with great acceptance on the part of the farmers as a means of popular instruction.

The enlargement of the field of instruction by the establishment of additional courses of study led to important changes in administration. Inasmuch as certain of these courses were closely related to others, it seemed desirable that their work be adjusted as far as practicable to a common standard. Finally, the faculty and the Trustees agreed that it would be a decided gain in concentration and effectiveness of work "if all related subjects and courses were brought together in groups so that all members of a group might give and receive mutual support and stimulus." At its meeting in September 1895, the Executive Committee of the Board of Trustees voted to group the several courses of study into Schools, subject to the approval of the Board at its regular meeting in January following. The provisional reorganization thus adopted established the following Schools:

1. A School of Agriculture, including Technical Agriculture, Agricultural Chemistry, Horticulture, Dairying, and Veterinary Science. H. P. Armsby, Dean.

2. A School of Natural Science, including the departments of Botany, Chemistry, Geology, and Zoology. G. G. Pond, Dean.

3. A School of Mathematics and Physics, including the departments of Mathematics, Physics, and kindred branches. I. T. Osmond, Dean.

4. A School of Engineering, including the departments of Civil Engineering, Electrical Engineering, and Mechanical Engineering. L. E. Reber, '80, Dean.

5. A School of Mines. M. C. Ihlseng, Dean.

6. A School of Language and Literature, including the departments of Ancient Languages and Literatures, Modern Languages and Literatures (except English), and English Language and Literature. Benjamin Gill, Dean.

7. A School of History, Political Science, and Philosophy, including the departments of History, Psychology, Ethics and Pedagogics, and Political and Economical Science. George W. Atherton, Acting Dean.

The Trustees, at their regular meeting in January 1896, unanimously approved the foregoing provisional administrative reorganization of the work of the College, and proceeded to put it into effect. The Schools thus established were not all equally well equipped and manned. The School of Mines was organized prematurely, as the event proved; and one School, instead of two, would have been adequate for administering the work in the Liberal Arts. It seems clear that the reason for dividing the courses given in the Liberal Arts into two Schools was to call special attention to the fact that Penn State was not merely a technical institution, but was prepared to meet the demands of students desiring to pursue other than strictly technical studies. There was method in its seeming madness, its advertising value on the printed page being worth something to the College. The new system as a whole was a long step forward, and was beneficial in its results. It was helpful to the students as enabling them to obtain a clearer view of the range and relations of their special work; and to the faculty, as affording greater opportunity to counsel together than is possible where each one regards himself as an individual member of the teaching staff. Furthermore, it was serviceable to the Trustees in enabling them to gain a better knowledge of the efficiency and relative importance of the different branches of work by having their attention fixed on

individual groups rather than upon the field as a whole. Perhaps, also, the growing importance of the College, with its expanding work, its enlarged faculty, and its increasing student body, begot a more acute institutional consciousness, which was reflected in a desire for a university organization. It must not be thought, however, that the Schools were so autonomous or its deans so autocratic in these early years as they became later. Their functions were advisory and academic rather than legislative and administrative, and the general faculty still remained the main governing body and unifying agency in the internal affairs of the institution. In fact, at the same Executive Committee meeting at which the provisional creation of the Schools was decided upon, it was voted that the governing body of the College should be the president, professors and associate professors, and assistant professors "who are for the time being in charge of a Department." The deans were thought of as being simply first among equals, and not as lords of all they survey.

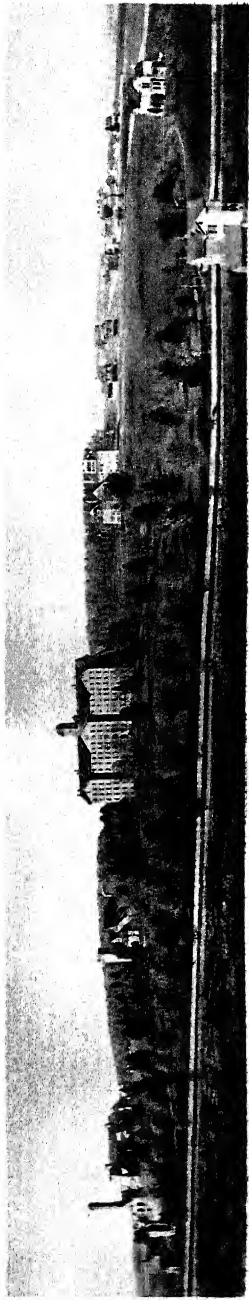
Another administrative change of some consequence was the modification effected in the Preparatory Department. This department, established in 1863, had grown more rapidly than the Collegiate Department in the early history of the institution, and for many years enrolled a majority of the students. Its growth had led to its division into a two-year course, corresponding roughly to the work ordinarily done in grammar schools and high schools, respectively. In the spring of 1895, Professor E. E. Sparks, who had been for some years the efficient principal of this department, resigned his position, to take effect in June of that year. His resignation served to focus attention on the department and led to a serious appraisal of its status in the work of the College. As a result, President Atherton recommended to the Executive Committee of the Board at its meeting in September 1895

that the office of the principal of the Preparatory Department be abolished, and that thereafter the preparatory class be regarded as the sub-freshman class. He further recommended that instruction should be given to the sub-freshman class with special reference to preparation for entering the freshman class, "the several subjects taught being under the control and direction of the heads of the corresponding departments of the College." These recommendations were adopted, and it was ordered that the separation of dormitories hitherto existing be abolished and the students be allowed to select rooms at will in any part of the building, under such regulations as the faculty might establish. The lower or Grammar School section of the Preparatory Department having been dropped, the preparatory students were regarded thereafter as a sub-freshman class, their work being directed towards preparation for entrance to college.

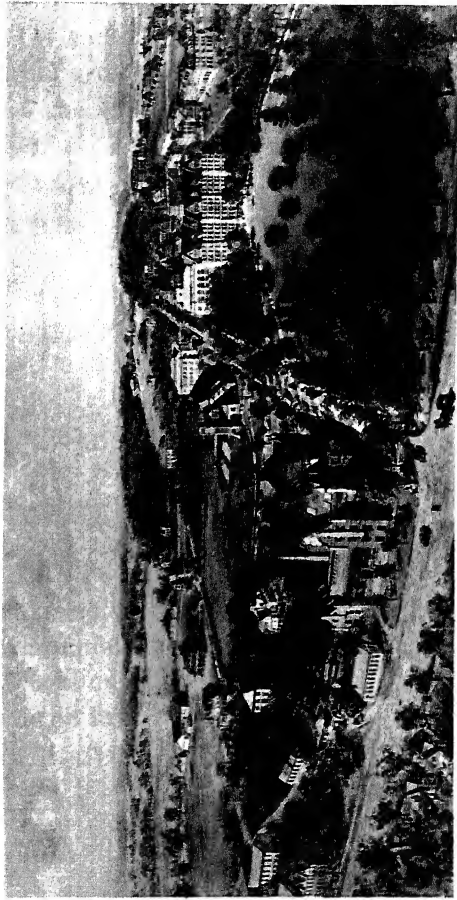
Upon the recommendation of the faculty, who had considered the matter at a special called meeting in November 1896, the Trustees authorized the establishment of a Summer School of two weeks following the next Commencement. According to the plan adopted, the Summer Session was to be occupied "exclusively with practical training in the laboratories, shops, and fields." At first it was a required course for all freshman, sophomore, and junior students in engineering; and later, for students in agriculture and industrial chemistry as well. The object of this arrangement was to allow a period of uninterrupted practice in the shops and fields such as could not be secured in the ordinary course of daily employment during term time. The Summer School, thus begun, continued along these lines throughout the remainder of President Atherton's administration, and is not to be confused with the more important Summer Session for Teachers inaugurated in the succeeding administration.

For some years it had been felt that a change in the organization of the Board of Trustees was desirable in order to make it more truly representative of the interests served by the College. In response to this demand, the Legislature passed an act in 1905 reorganizing the Board. The ex officio members were reduced from nine to four, the alumni representation was increased, and the Governor was empowered to appoint two members annually. As newly constituted, the Board consisted of thirty-one members, of whom four were ex officio, nine were elected by the alumni, six were appointed by the Governor, and the remaining twelve were chosen by electors composed of the Executive Committee of the Pennsylvania State Agricultural Society, the managers of The Franklin Institute, and the representatives of county agricultural societies and of manufacturing and mining organizations.

Other administrative changes in this period were in connection with the Library and the chapel services. When the new Carnegie Library was erected and made ready for occupancy, the Executive Committee of the Board of Trustees decided that the library staff should be reorganized. Accordingly, Professor E. W. Runkle was appointed head librarian, and Miss Helen M. Bradley, former librarian, was continued as assistant librarian, with Miss Anna A. Macdonald as second assistant librarian. Dr. Runkle, who became librarian (part-time) on July 1, 1904, remained in this capacity for twenty years, or until 1924. In 1894 Reverend Lawrence M. Colfelt, D.D., was appointed preacher to the College and professor of ethics, being the first regular chaplain in the history of the institution. Hitherto, it had been customary to depend upon the services of preachers living within accessible distances of the College, their appointment for preaching being made at such dates as they could be absent from their charges. Dr. Colfelt served as College preacher until April 1,



THE CAMPUS ABOUT 1895



THE CAMPUS 1910

1898, and was succeeded by Dr. Benjamin Gill, who served as chaplain from 1899 to 1910.

In the period under review, comprising the years from 1893 to 1906, inclusive, there was a large increase in the faculty and the student body. At its beginning, the former numbered 30, and at its close 66, while the latter increased in the same period from 244 to 800; and conditions were favorable for a still more rapid growth. In student enrollment the 300 mark was passed in the session of 1893-94, the 400 mark in 1900-01, the 500 mark in 1901-02, the 600 mark in 1902-03, the 700 mark in 1903-04, and in 1905-06 it was an even 800. The growth was continuous except for a slight falling off in the session of 1894-95 due to the financial panic of the Cleveland administration; and again in 1897-98 and 1898-99 resulting from the dropping of the lower section of the Preparatory Department and from the Spanish-American War. Thereafter the growth was continuous and rapid. The number of students graduating at Commencement increased from 23 in 1892 to 86 in 1906. The rapid growth of the student body presented to the College administration the problem of enlarged accommodations in the form of dormitories and of other new buildings, with increased equipment and classroom facilities. As always when an institution is expanding rapidly there was urgent need of enlarging the physical plant to take care of the increasing patronage.

We have seen that the first building movement in President Atherton's administration began with the erection of the Botany Building in 1887, and closed with the completion of the Engineering Building in 1893. A second and no less important building program began in 1900 with the erection of the Calorimeter Building and closed in 1907 with the Main Agricultural Building. The calorimeter at Penn State was constructed under the supervision of Professor Henry P.

Armsby, head of the Agricultural Experiment Station and an outstanding authority on animal nutrition. To house the apparatus of the calorimeter a small but substantial red brick building, specially constructed with double walls and storm sash to shut out, as much as possible, changes in temperature, was completed in 1902, ushering in the new building era. Other buildings erected in this period were Schwab Auditorium, Dairy Husbandry Building, Carnegie Library, Old Track House, McAllister Hall, Old Mining Building, and two temporary buildings for dormitories.

The first of this new group of buildings to be erected was Schwab Auditorium, a monument to the generosity of Charles M. Schwab, a Trustee and friend of the College. In the session of 1901-02, when the student enrollment exceeded five hundred, it became evident that the old Chapel, the largest assembly room on the campus, was hardly sufficient for daily use and was hopelessly inadequate for the crowds present at Commencement and on other public occasions when guests were numerous. Plans were drawn up for its enlargement, but these involved the expenditure of a considerable sum of money which did not appear to be forthcoming. At the Commencement exercises in June 1902, held as usual in old Chapel, Mr. Schwab was seated on the platform and Mrs. Schwab was in the audience. Mr. Schwab was observed going down to consult his wife in the audience, which looked on with keen interest, expecting something important to happen. They were not disappointed, since Mr. Schwab, in resuming his seat on the platform, said to Dr. Atherton, "You can announce that Mr. and Mrs. Schwab will furnish the money for the enlargement of the Chapel." Later in the day, Mr. Schwab, upon further reflection, came to the conclusion that the enlargement of the old Chapel would afford only temporary relief, and offered to erect an entirely new structure to cost

about \$100,000. When the plans had been prepared, however, it was found that the building would cost much more than that, but Mr. Schwab agreed to stand for the additional expenditure, with the result that a large, handsome, and commodious structure seating fifteen hundred persons was erected at a cost of \$155,000. The new Auditorium, the story of whose building became one of the traditions of Penn State, was dedicated with elaborate ceremonies during the Commencement exercises of June 1903. It immediately became the center of the public activities of the College and, as Dr. Atherton said, "has been a powerful agency in elevating and broadening the standards and range of college life and work."

The erection of the Carnegie Library followed hard upon that of the Auditorium. The library had long been crowded into cramped quarters in the central wing on the second floor of Old Main, where it remained until 1904. With the growth of the institution, the need for improved library facilities became more and more urgent with each passing year. For some reason the Legislature had never felt the same interest in appropriating funds for an adequate library building, than which nothing about an institution of learning could be more important, as for the erection of buildings devoted to agriculture, engineering, and other similar purposes. The situation was becoming desperate, and the Trustees began to look around for a generous and public-spirited individual willing to provide funds for a library building. In this they were fortunate in enlisting the interest of Andrew Carnegie, Trustee of the College from 1886 to 1916. In 1899 Mr. Carnegie offered the Board of Trustees the sum of \$100,000 for a library building on condition that the State should pledge an annual appropriation of \$10,000 for its maintenance. A committee was appointed to take the matter up with the Legislature to secure favorable consideration of the proposal, but was unable

to secure the cooperation of that body. The Board then agreed, in a manner satisfactory to Mr. Carnegie, to assume the responsibility for adequate maintenance of the library. Meanwhile, the College was growing rapidly and the prospect of continuing growth was so promising that Mr. Carnegie generously increased his donation to \$150,000 for the library building. The structure was completed in the spring of 1904, the books and periodicals were transferred to the new building in the summer, and the building was dedicated November 18, 1904, in the presence of Governor Samuel W. Pennypacker, Mr. and Mrs. Carnegie, and numerous other distinguished guests.

Meanwhile, events had been shaping to the erection of a group of agricultural buildings. Apart from the Experiment Station Building and the Calorimeter Building, the Agricultural School had been very poorly housed. In 1890 a small creamery and dairy building had been erected at a cost of \$1780, and in 1895 "Hemlock Hall," the first building for general agriculture, had been constructed at a cost of \$1165, but these temporary structures did not meet the needs of the situation. Interest in agricultural education was increasing and the Allied Agricultural Organizations of the State, through their officers, championed the cause of the College in its effort to secure new agricultural buildings on the campus, and brought strong pressure to bear upon the Legislature to this end. This resulted in the passage of the Act of 1903, carrying an outright appropriation of \$100,000—with the understanding that one building could be erected and equipped for that sum, and that \$150,000 more would be appropriated to complete the group of agricultural buildings. Accordingly, ground was broken for the new Dairy Building at the Commencement exercises of 1903, and it was completed in 1904. Delay was experienced, however, in securing

the \$150,000 for the erection of the Main Agricultural Building, due to a partial veto of the appropriation for this purpose by Governor Pennypacker on the ground of insufficient State revenue. It appears that work on this building was begun in 1905, but the appropriation for its completion was not approved until 1907. The new group of Agricultural Buildings was dedicated on November 22, 1907, Governor Edwin S. Stuart, Senator Boies Penrose, and other distinguished visitors being present.

With the rapid increase in the enrollment, the problem of providing dormitories to house the students became acute. In January 1904, Dr. Atherton submitted to the Board designs for a dormitory and dining hall to be named McAllister Hall in honor of H. N. McAllister, a former Trustee and one of the founding fathers of the College. The building was completed in September 1905, providing quarters for 150 students and a dining hall capable of accommodating about 800 students. A large and commodious three-story brick structure, costing \$100,000, it was first used exclusively for men, but later became a women's dormitory. Prior to the erection of McAllister Hall, several emergency dormitories had been erected to take care of the rapid growth of the student body. One of these temporary buildings, known as the "Bright Angel," was erected in the autumn of 1903; and the other one, called the "Devil's Den," was built in 1904. These were long, narrow, one-story structures, located between the Armory and the present Mineral Industries Building and accommodating about 50 students each. The Track House, a three-story frame building of modest proportions, was completed in 1903.

Another building of the temporary or emergency variety, erected somewhat later than the foregoing, was the Old Mining Building. The Department of Mines and Mining had

fitted up as temporary quarters, in the session of 1903-04, the old frame building formerly used for instruction in mechanic arts, but was sadly in need of enlarged accommodations. Funds not being forthcoming to erect a permanent structure, it was decided to construct an emergency frame building to serve until such time as the School of Mines could be properly housed. In August 1905, plans were made and ground was broken to begin the erection of an unwieldy structure known as the Old Mining Building. The building formerly used as a mineralogical laboratory was moved to a vacant lot southwest of the Engineering Building and additions to it were constructed, giving it a length of 170 feet. It was ready for occupancy in 1906. Later, two large wings were added to it, but it was a makeshift affair and long remained to disfigure the campus until displaced by the present spacious and elegant Mineral Industries Building.

As in the case of all the presidents of Penn State, an important part of Dr. Atherton's work was to maintain satisfactory relations with governors and legislatures, and to build up good will toward the College on the part of the public. To the accomplishment of this purpose he devoted much thought and effort throughout his administration, and succeeded to a large extent in securing the results desired. In general, it may be said that in this period, as the College and its work became better known, public sentiment regarding it became more favorable and the attitude of the Legislature more friendly, with a corresponding increase in appropriations for buildings and maintenance. While considerable progress had been made in the first decade of President Atherton's administration towards securing greater recognition for the College, both in the Legislature and among the people, much still remained to be done in this regard. The ignorance of the public respecting the institution was astonishing, and it was

necessary to do much in the way of informing the people at large not only as to the work actually carried on at Penn State, but also as to its character as the State College and the crown of the public school system of the Commonwealth. That much prejudice and many misconceptions regarding the College still lingered in the public mind in the time of President Atherton cannot be doubted, but it is no less certain that these were in large measure removed as time passed.

In his report to the Board of Trustees for 1897, Dr. Atherton characterized the degree of misunderstanding existing in many sections of the State with respect to the work of the College, and especially as regards its relations to the State government, as "surprising and well nigh incredible." He declared that the idea had been sedulously fostered in some quarters that the State College had no special claim upon the support of the State Treasury and no more right to legislative appropriations than had other institutions. It was such misconceptions as this that he labored to remove by means of the spoken and written word. He returned repeatedly to the subject, adverting time and again to the Morrill Act and to the acceptance of that act by the Pennsylvania Legislature, with its accompanying pledge of the faith of the State to carry it into effect by supporting The Pennsylvania State College as the institution designated to be the recipient of the benefits of the act. Admitting that for a time the State had lost sight of the solemn obligations which it had thus assumed, he was heartened by the fact that in late years the attitude of the Legislature had undergone a marked change for the better as witnessed by enlarged appropriations for buildings and maintenance. Year after year he sought to impress upon the Legislature and the public the fact that Penn State was the only institution of learning which the State was under solemn contract with the United States Government to support; and

that appropriations made to its support were simply the performance of a public trust it had assumed in its covenant with the Federal Government. By the end of his administration this idea had become fairly well fixed in the mind of the Legislature and of the public generally.

Another idea which Dr. Atherton sought to instill in the public mind was that The Pennsylvania State College was the capstone of the public school system of the Commonwealth, and that the establishment of closer relations between the College and the public schools would be mutually beneficial. He proclaimed the doctrine that the College was a vital part of the system of public education in the State not only because it was so largely supported by public funds, but also because its students were drawn increasingly from among those whose only means of preparation was the public school. In his report for 1894 he referred with satisfaction to the fact that the preceding year had shown a marked increase in the number of public schools preparing their students directly for college; "and," he says, "I find evidences on every hand of a growing sentiment among the people of the State that the relations between the College and the public schools ought to be strengthened and made so direct that all should be made parts of a single system." It was a source of gratification to him when in 1894 Dr. Nathan C. Schaeffer, Superintendent of Public Instruction, said in his annual report: "Although not organically connected with the common schools, the State College is nevertheless an essential part of our system of public instruction." This was especially gratifying as being the first time in the history of the College that the relation of the institution to the public school system of the State had been distinctly recognized by a Superintendent of Public Instruction.

Now that the College was established on a firm basis and

was growing rapidly, it was in a position not only to appeal to the Legislature for appropriations with greater assurance of success, but was also more likely to receive private benefactions from generous donors. Hitherto it had lacked the means to establish scholarships, fellowships, and beneficiary loan funds for impecunious but deserving students, and such financial aid as had been provided for them had been furnished in no systematic manner. Soon after the turn of the century, however, large donations were received which made it possible to render assistance to students under a system of regulations prescribed by the Trustees and administered by the faculty. In June 1902, Mr. James G. White, '82, a distinguished alumnus and Trustee of Penn State, donated to the College the sum of \$20,000 for the purpose of establishing scholarships and fellowships as a memorial of his father, the Reverend John W. White, who had been for many years one of the most beloved and acceptable preachers at the Sunday chapel services. With the proceeds derived from this gift were founded the John W. White fellowship and scholarships. Other gifts were received from Mr. and Mrs. Andrew Carnegie. In January 1905, Mrs. Carnegie gave the College \$25,000 with which to establish additional scholarships. This became known as the Louise Carnegie Scholarship Fund, the income from which provided for the establishment of twelve scholarships. Mr. Carnegie at the same time donated to the College the sum of \$25,000, the income from which was to be used as a beneficiary fund for the aid of needy students. Thus was established the Andrew Carnegie Beneficiary Loan Fund, administered by the faculty under regulations laid down by the Trustees. In this manner began the accumulation of the considerable funds now in the possession of the College for aid to students through scholarships and beneficiary loan funds.

In the period now under discussion, attention is called to some of the more prominent figures among the Trustees and the faculty whose services added lustre to the annals of the institution. Most of the Trustees mentioned in the preceding chapter as contributing freely of their time and effort to the College in the first decade of President Atherton's administration were still active in his later years, with the exception of John H. Orvis and Amos H. Mylin. When Francis H. Jordan, President of the Board, resigned in 1898 on account of declining health, General James A. Beaver became president for the second time, and so continued until his death in 1914. Andrew Carnegie, who had been elected a Trustee in 1886, continued in that capacity for thirty years and was ever a friend and benefactor of the College. Charles M. Schwab, elected a Trustee in 1902, also served on the Board for thirty years, being gratefully remembered for his donation of the Schwab Auditorium. H. V. White, John Woodward, and Gabriel Hiester served as useful members until 1923, 1911, and 1912, respectively; and Cyrus Gordon till 1901, Charles W. Roberts to 1895, Samuel R. Downing to 1902, and George W. Hood to 1898. Three of the alumni who were to become very influential members of the Board in after years were elected toward the close of this period: these were H. Walton Mitchell, '90, elected in 1902; James G. White, '82, elected in 1903; and J. Franklin Shields, '92, elected in 1905. Mr. James G. White was the donor of the John W. White Scholarships and Fellowship, and Messrs. Mitchell and Shields became presidents of the Board and chairmen of the Executive Committee in later administrations. Throughout the Atherton era, General Beaver was the most conspicuous and influential member of the Board.

Leading faculty members in this period were Professors Buckhout, '68, Armsby, Frear, Pond, John Price Jackson,

'89, Walker, Reber, '80, Ihlseng, Wadsworth, Osmond, Gill, Reeves, Foss, Butz, '83, Pattee, Willard, Fehr, and Runkle. Miss Harriet A. McElwain was prominent as lady principal, executive secretary, and registrar; and William C. Patterson rendered great service as superintendent of the farms and of grounds and buildings. The College was well served by its faculty, the fame and influence of many of whom extended far beyond the confines of the campus and gave Penn State a worthy place among the institutions of learning throughout the country. Further reference will be made to members of this group in connection with special services rendered by them. President Atherton, who regarded his faculty highly, often referred to them in terms of praise and was in turn highly esteemed by them. He knew that they were overworked and underpaid, and lamented feelingly the fact that the College budget did not warrant paying them the salaries they deserved. His experience was not unlike that of his successors in office, that it was generally more easy to secure from the Legislature appropriations for the erection and equipment of buildings than to obtain adequate sums for the maintenance of the teaching staff.

Throughout all the early history of the College, difficulty was experienced in securing suitable accommodations for the faculty. The village of State College grew slowly and long afforded but little help in this regard. At first, all the members of the faculty roomed in Old Main, there being nowhere else for them to go. Gradually, however, the College erected residences on the campus for the professors, but these were limited in number and accommodated only a few. By degrees, also, the village grew and furnished a restricted supply of apartments and boarding houses. Several of the more opulent professors built homes in the village, and the erection of the University Inn in 1894 helped to relieve the pressure. Never-

theless, even in the eighteen-nineties when the trek from Old Main was well under way, some of the professors roomed in that antiquated building, with their families. Among these, for example, were Professors Pond (Swampy), Sparks, Reber, Frear, and Heston. There being no amusement centers in the village, the members of the faculty and their families developed a pleasing social life among themselves. In the 'nineties, organizations of one sort and another multiplied—chess and whist clubs, a Shakespeare Club, a Faculty Newspaper Club, a Scientific Association, and other organizations. Most of these lasted only a few years. There was one, however, which was founded in 1896 and has had a continuous and flourishing existence down to the present time; namely, the Literary Club. This Club, which was an outgrowth of meetings held by the School of Language and Literature, held its first meeting in October 1895; but did not effect a formal organization until the fall of 1896, the charter members being Professors Gill, Pattee, Fehr, Foster, and Munroe. It is the oldest existing faculty organization and has numbered among its members many of the choicest and most productive members of the faculty.

The Pennsylvania State College is located in the borough of State College, which owes its origin and growth to the College itself. It will be recalled that when The Farmers' High School was founded it was located on a farm, with no village in the immediate vicinity. Around the College there grew up gradually a hamlet to which was given the name of State College in 1874. At the time of the coming of President Ather-ton, it had something over a hundred inhabitants and was a crude, ill-kept village. When the place had grown to the point where it numbered perhaps five hundred inhabitants, it was incorporated August 29, 1896. It has always been strictly a college town, with no factories with their accompanying

noise or smoke to disturb the serenity of the inhabitants. As the College grew the town grew, the number of students always corresponding roughly to the number of residents of the town, sometimes one and sometimes the other furnishing the larger number. The relations existing between the town and the gown have been close and harmonious from the beginning. Thus, when the town was incorporated, Professors Buckhout and Butz were among the charter members of the Council, the latter being its first president, and the first Council meetings were held in the Botany Building; and, when the First National Bank opened its doors for business on December 15, 1904, William C. Patterson was its first president. The first hotel, a small frame building located on the site of the present State College Hotel, was built in 1878 and was run by James Jack. The State College Hotel of the present day was erected in 1905, with "Dad" Shuman as proprietor. The University Inn, built in 1894 at a cost of \$25,500 on the site of the present University Club, was destroyed by fire in 1903, being occupied at the time by seven professors and their families and some twenty students, besides about twenty-five workmen engaged in the erection of Schwab Auditorium. The first place of business in the village was a general store run by Robert M. Foster Sr. On the opposite corner from the hotel was the Mitchell residence, and a little farther to the east was the village store, which was run by Mr. Mitchell and served also for the post office. Somewhat farther down the road toward Lemont was an agricultural implement store owned by John Hamilton. There were several residences on the present Beaver Avenue, two of which were occupied by Professors Buckhout and Osmond. This was the general picture of the village in the early eighteen-eighties.

Prior to 1887 there were no churches in State College, the people attending services at the near-by hamlets of Centre

Furnace, Lemont, and Boalsburg, along with the chapel services at the College. In 1887 the Methodists and Presbyterians organized churches in the village, and in the following year erected houses of worship; no other church was organized in State College in the time of President Atherton. There was no public school in the village prior to 1892, when a small two-room building was erected at the corner of Hiester Street and Calder Alley. Before this time the children attended schools in the vicinity of the village, particularly at Centre Furnace, except that those more advanced in their studies attended the Preparatory Department at the College. A steam laundry was built in 1898, and in the same year the *State College Times* made its bow to the public as a weekly newspaper. By 1900 the town, now incorporated, thought that it had arrived, having at that time a resident population of 851 and being the happy possessor of three general stores, one hardware store, one drug store, one men's clothing store, one barber shop, one bakery and restaurant, one grocery store, a newspaper and printing company, a livery stable and blacksmith shop, two hotels and several boarding houses, two churches, a public school, and railroad connections with the outside world. At the close of President Atherton's administration it had a population of about a thousand and was threatening to effect civic improvements. There have never been any barrooms in the town, which has always been characterized by a fine moral atmosphere.

An event of no slight significance in the history of the town and of the College was the building of the Bellefonte Central Railroad. This road was built by the Collins brothers of Ebensburg in 1886, the lure being the iron ore west of State College. At first, however, the road did not run into the borough, but only to Struble's Station, about a mile west of the town. In 1892 a spur was constructed connecting the town

with the Bellefonte Central Railroad. The first train rolled into State College on Saturday, April 2, bringing quite a number of people from Bellefonte. To celebrate the occasion, the railroad company ran an excursion of invited guests, who were given a free ride to Bellefonte and return later in the day. A schedule providing for three trains daily to and from State College and Bellefonte went into effect promptly, being of great service in improving the transportation facilities of the town and the College, besides solving the problems of freight traffic.

Although President Atherton was a man of strong physique and temperate habits, he gave himself so untiringly and unsparingly to the service of the College that his health gave way under the strain. In the summer of 1905 he suffered a severe bronchial disorder, from which he recovered slowly. In December of that year he wrote a letter to the Executive Committee of the Board, asking leave of absence on account of his health and suggesting that the Committee take under consideration the question of a change in the presidency of the College. Although it was hoped that he would regain his health and be able to resume his duties, the Committee acceded to his request by appointing a committee to take the matter under advisement, and designated Professor Buckhout as acting president while the President was away on leave. On the advice of his physician, Dr. Atherton spent the winter in Southern California. Somewhat benefited by the change, he returned in the spring of 1906 and attempted to take up his work again, but suffered a relapse. By a supreme effort of will power he appeared on the platform on Commencement Day and conferred the degrees upon the graduating class, which was his last official act. Growing gradually weaker, he passed away on July 26, 1906, in the seventieth year of his age. He was buried beside the Auditorium and a monument

was placed over his grave by devoted students, but his real monument, more enduring than marble, is his splendid record as president of The Pennsylvania State College.

A summary view of the Atherton Era, spanning nearly a quarter of a century, or more than a fourth of the life of the College, will serve to reveal the extent of the changes taking place in this period. When it began, the foundations of the College were shaky and its prospects far from bright. Even its policies were not definitely determined. There were divisions among the Trustees and the faculty, the morale of the institution was low, and its reputation was unsavory. It had never been widely advertised and most people in the State were unaware of its existence, while those who did know about it, except for its few friends, regarded it as a local agricultural school receiving from the Commonwealth money for which it made no adequate return. The attitude of the public toward the school was critical, not to say hostile. The Legislature had never accorded to it due recognition, nor taken seriously its covenant with the Federal Government to support it; no appropriations had been made for maintenance, and but few for other purposes. It was everywhere the object of misunderstanding and prejudice. The physical plant was inadequate and unattractive, practically all the activities of the institution being carried on in one gloomy-looking building unsuited to its purposes. The student body numbered only eighty-seven, the majority of whom were in the Preparatory Department. Except on paper, no provision had been made for instruction in the mechanic arts and in the liberal arts. The College had no library worth mentioning, no regular chaplain, and no suitable living accommodations for the faculty or the women students. From the student viewpoint almost everything dear to the hearts of students was lacking; there were no fraternities, no organized athletics, no student

publications, no dancing or other amusements, no cadet band or other musical organizations, and, sad to relate, not even college colors or college song, or college yell. Furthermore, the place in which the College was located was a straggling village of about a hundred people, without churches, without a public school, and without civic improvements.

By the close of President Atherton's administration the institution had undergone a complete transformation. The Atherton Era was a turning point in the history of the College—the beginning of a forward movement which gathered momentum with each passing year. It marked the transition from a period of drifting and experiment to one with a sound and enlightened policy, well understood and clearly defined. Its guiding principles, based on a true interpretation of the Morrill Act, were to go far toward shaping College policy for all time to come. The foundations were made secure, public misconceptions were removed, and public prejudice overcome. The Legislature, hitherto indifferent, was induced to redeem its pledge to the Federal Government by making generous appropriations, not only for buildings but for maintenance as well. No longer was the College to be regarded as a stepchild, neglected and left to shift for itself, but was recognized as the own child of the Commonwealth to be supported liberally and with a growing pride in its work and progress. The school was indeed increasing rapidly in numbers, equipment, and reputation. The faculty increased from 17 to 66; the student body, from 87 to 800. The physical plant underwent a complete change: Old Main was renovated and a dozen major buildings, besides a number of professors' residences and other minor buildings, were erected. The courses of study were increased in number, broadened and liberalized. The technical courses were greatly expanded, and the work in the liberal arts was developed. Everywhere were seen evidences of a strong, grow-

ing institution, with high morale, increasing prestige, and a promising outlook. Such were the results of the forward movement which began with the coming of President Atherton in 1882 and continued to gather strength to the close of his administration in 1906. That the movement thus begun was not to slacken in the coming years, but rather to gain ever increasing momentum, the further history of the College will disclose. Its impetus was such that it carried the College safely through the next two years, when it was without a president, and continued with accelerated speed into the administration of President Sparks, and beyond.

Upon the death of Dr. Atherton, the Trustees promptly appointed General Beaver, president of the Board, as acting president of the College, and elected Dr. J. P. Welsh, Principal of the Bloomsburg State Normal School, as vice-president. Dr. Welsh, whose title was later changed to that of Dean of the Colleges, was in actual charge of the routine duties of the president's office, subject to the superior authority of General Beaver, until the coming of President Sparks, following which he continued as Dean of the Colleges until his resignation in 1910. To his duties as vice-president were added those of financial agent and registrar, which made him an important cog in the administrative machinery of the College.

Certain changes, which had long been in the making, were effected during the interregnum between Presidents Atherton and Sparks; these were not the result of Dr. Atherton's death, but would have taken place in any event. Although Penn State had now grown into a sizable college, the president was called upon to look after many details which could be performed by others, and yet were a heavy drain upon his time and energies. It was thought that he should conserve his energies for the management of the larger affairs of the institution rather than wear himself out by a multiplicity of minor

duties. Thus it came about that the Board, in August 1906, adopted a plan for the reorganization of the internal administration of the College. This plan, which provided for a president, a vice-president, a financial agent, and a registrar, made the heads of departments responsible to the deans, who in their turn were responsible to the president, who was ex officio chairman of the general faculty and of the council of administration. The financial agent was to prepare the College budget and to perform such other duties as might be assigned to him by the Trustees. The registrar, whose office was made the depository of the College records, became secretary of the general faculty and of the council of administration. The council of administration, a new administrative body, consisted of the deans of the Schools, and the heads of the departments of Mathematics and English, and so remained until 1920 when the dean of men and the dean of women were added. It served as a cabinet for the president and as the judicial organ of the general faculty. The plan made another new departure in giving the students a voice in their own government by establishing a student board, which had the right to be heard in matters involving discipline and attendance. An important feature of the reorganization was the provision for a revised scheme of financial and business management. This required the deans, upon consultation with heads of departments, to submit to the financial agent each year their budgets for the ensuing year; from these the financial agent prepared the College budget, which was subject to the approval of the president of the College, of the Executive Committee, and finally of the Board at its annual meeting in June. This plan worked so well in practice that, in its essentials, it has been followed ever since.

In 1907 there was a somewhat sweeping reorganization of the School of Agriculture. Desiring to devote his entire time

to the administration of the Experiment Station, Dr. Armsby, at his own request, had been relieved of the duties of dean of this School and Dr. Buckhout had been serving as acting dean. The work of the College in animal nutrition, Dr. Armsby's special field, was now erected into an independent department under the name of the Institute of Animal Nutrition, with Dr. Armsby as director. The vacancy in the deanship of the School of Agriculture was filled by the appointment of Dr. Thomas F. Hunt to this position. Under Dr. Hunt a reorganization of the School was promptly effected; new courses were added, Farmers' Week was inaugurated, and agricultural extension on an enlarged scale was begun. Changes were made in other Schools also; the Department of Mining was enlarged and reorganized as the School of Mines and Mining, with Dr. M. E. Wadsworth as dean. In June 1907, Professor John Price Jackson was appointed dean of the School of Engineering, succeeding Dean Louis E. Reber, who had accepted a position as head of the extension work at the University of Wisconsin. In 1907 the Department of Home Economics and the Department of Forestry were created, and engineering extension was begun.

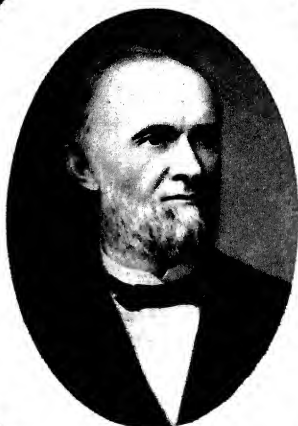
Meanwhile, by reason of the increase of the student enrollment from 800 to 1151 during the interregnum, it was necessary to provide additional accommodations for the student body. In July 1907, the Executive Committee authorized the expenditure of \$18,000 for the completion of the Old Mining Building; a month later it authorized the erection of an Engineering Extension Building (Engineering F), a temporary frame structure. Three rooms in the basement of Old Main were set aside for the use of the Department of Home Economics. In September 1907, the Executive Committee voted to appropriate \$29,000 for the erection of a



Frederick Watts
1855-74



James Addams Beaver
1874-82, 1898-1914



Francis Jordan
1882-98



Howard Walton Mitchell
1914-29



John Franklin Shields
1929-


THE PRESIDENTS OF THE BOARD OF TRUSTEES

Chemistry Building (Chemistry Annex), and approved plans for an addition to the Ladies' Cottage. As has been noted, the Main Agricultural Building was dedicated November 22, 1907. These buildings, completed or projected during the interregnum, increased the facilities for carrying on the work, but fell far short of the needs of a rapidly growing institution.

A circumstance of no slight significance occurring at this time was the adoption by the Board of Trustees of the first comprehensive plan of campus development. James L. Hamill, '80, Trustee and loyal alumnus, proposed to secure at his own expense the services of Charles N. Lowrie, a landscape artist of New York City, to survey the campus and grounds of the College and to devise a general long-term plan for their improvement. This generous offer resulted in a plan of development which was officially approved by the Board in June 1907. Hitherto, but little attention had been paid to any general scheme relative to the location and type of buildings erected on the campus, or to the walkways and driveways connecting them, but henceforth this feature was to receive more serious consideration.

The substantial accomplishments of the two-year interregnum serve admirably to illustrate the unbroken continuity of College policy as represented by the Executive Committee and by the Board of Trustees. Whatever the interruption to the smooth flow of College life resulting from recurring vacancies in the office of president, the Trustees remain always in active control of the situation, carrying out well-considered plans whose roots strike deep into the past, and pursuing ever a consistent policy to mould the general pattern of the development of the institution. Nevertheless, the function of the president of the College is also tremendously important, as the Trustees themselves recognize. To secure for this office a man who could follow Dr. Atherton acceptably and could

measure up to the great opportunity now beckoning the institution was of the utmost consequence, and to the accomplishment of this end the Board now addressed itself with painstaking care. Their choice was indeed fortunate in that it fell upon Edwin Erle Sparks.



*EARLY STUDENT
LIFE AND CUSTOMS*

IN THE PRECEDING narrative we have been concerned with the more formal history of the College, and have said but little about the activities of the students themselves. Yet the story of a college has to do not only with the problems and policies of the President and the Trustees, or with the faculty and courses of instruction, or with buildings and grounds, but also with the life of the student body. After all, the primary function of an educational institution is to teach students, and the whole machinery of administration is but the means of carrying out this purpose. Again, it has been truly said that there are two colleges on every campus—one of which is concerned with courses of study leading to graduation; while the other is made up of extracurricular activities, many of them leading nowhere in particular though serving a useful purpose as an outlet for youth's abounding energy. Some of these, however, are valuable in that they develop both the mental and physical qualities of those who engage in them. They not only minister to the social needs of the students, but furnish a certain training in leadership on the campus by developing initiative and a sense of responsibility that may well prove useful in after life.

Few would question the desirability of extracurricular activities, especially when these are regulated by a wise and sympathetic college administration; at any rate, they are here, and are here to stay. Out of them grow certain tradi-

tions which are intimately interwoven with the life of the institution, and are dear to the hearts of the students and the alumni alike. Anyone who has been present at an alumni gathering on the Penn State campus and has observed men of sixty and seventy years gleefully rehearsing the incidents and pranks of their student days, will readily understand what these things mean to them. It would be a hard-hearted man, indeed, who would not be sympathetic toward these "boys" of the yester-years. Let us then, in somewhat lighter vein, give the boys their innings, as is their due.

Inasmuch as the student body at Penn State did not become large until toward the close of the Atherton era, the story of student life in the period under review is that of a small but growing college. This life differed from that of other institutions of the time chiefly in that it was conditioned by the location of the College in a remote village, with limited communication with the outside world. This tended to give to student life a certain crudity in what was long regarded throughout the State as a backwoods college. To a greater degree than usually obtains in college communities, the boys were thrown largely upon their own resources for relaxation from the routine of study and recitation. This was the heroic, militant age of the institution when it was growing lustily, to be sure, but could never catch up with itself. Its coat was always too small and its trousers too short because it outgrew its clothes before it could wear them out. Later it would grow mature, acquiring ease and grace of deportment as becomes one of the great institutions of the land, but the time was not yet. Nevertheless, it made up in vigor what it lacked in refinement, and we would not have it otherwise if we could; we like its salty flavor and its artless simplicity. As yet it was young and had no hoary traditions behind it, but it was making

traditions that would be as imperishable as the institution itself.

In the period preceding the coming of President Atherton, there was a very restricted student life insofar as extracurricular activities are concerned. The only organizations at that time were the Literary Societies and the Y.M.C.A. There were no organized athletics, and almost no athletics of any kind. Everybody roomed in Old Main; and the rules and regulations were strict, while the penalties for their violation were severe. There were no fraternities, no student publications, no dancing, and but little chance for diversion of any kind. Conditions continued to be much the same until about 1887, from which year may be dated the beginning of an expansion of student activities far beyond anything that had gone before. The story of these activities, as we shall describe them, has to do with conditions in the late eighties and the nineties, for the most part.

When students of the class of 1890 entered Penn State as freshmen, they found no great array of buildings and conveniences. Old Main, not as yet remodeled, dominated the landscape. The president's house was where it now stands, and on the eastern side of the campus was the stone house occupied by Vice-President McKee. Another professor's house was located in front of what is now the Woman's Building. There were two frame gate-keepers' lodges—one at the Allen Street entrance to the campus, and the other at the McAllister Street entrance. To the south of the present Main Engineering Building stood a brick boiler and engine house, while somewhat nearer the Allen Street entrance was a frame building known as the Carpenter Shop, where instruction was given in woodwork. Where Carnegie Hall now stands was a barn, with a hog-pen near by, and across the roadway was a cottage occupied by one of the farm workmen. A few small

greenhouses were located on what later became known as "Ag. Hill," while close by were a barn and a house occupied by the superintendent of the farm.

In the eighties and early nineties, all the students, except the few residing in or near the village of State College, roomed on the third, fourth, and fifth floors of Old Main, where they paid a nominal fee for their rooms. The College provided an iron single bed, two chairs, a table, a bureau, and a washstand, but no curtains, carpet, or bedding; and there were usually two students in each room. The fifth floor was the most popular, due in part, it is said, to the fact that here the students had a feeling of superiority as being above everybody else, and in part to the circumstance that a "poke of water" had farther to fall on a person at whom it was aimed. The poke of water consisted of a paper bag filled with water, and, when dropped down the stairway upon the head of some unsuspecting individual walking below, afforded much amusement—to the one who dropped the poke. To relieve the tedium of time, two of the boys of the class of '90 and '91, respectively, rigged up a sort of telegraph and telephone system, which operated between rooms in the building.

Around the year 1890 the charge for room rent, furniture, and light for the session was \$37; and board ranged from \$2 to \$3 per week, the usual price being \$2.50. A student club was given permission to use several rooms in Old Main for a dining room and kitchen, and here the majority of the students boarded until the renovation of the building in 1888 caused their removal to the Snyder Building in the village. Thereafter the students ordinarily boarded in the village in groups known as "clubs," which had special names such as Delmonico, Duquesne, Vesta, and Clover. These eating clubs, which appear to have been the nurseries of fraternities, developed rivalries and loyalties that added spice to college life. To some

extent they fostered the origin of other organizations which sprang up about this time. There were too few girls to form clubs, but board for women was furnished by Mrs. Mitchell, Mrs. Kemport, and the Misses Hunter. With the building of the Ladies' Cottage, however, the co-eds were adequately provided for. In May 1890 Miss Harriet McElwain, the Lady Principal, announced on a printed card that the College "is now able to offer an attractive home to young women who desire to secure the advantages of an advanced college course." In the middle nineties good board could be had at the University Inn, at the State College Hotel, and at private houses, or at any of the students' eating houses. At that time the principal clubs were the Delmonico, the Clover, and the Keystone, all of which were managed by officers elected by the students. The rate had advanced somewhat by this time, but board could still be obtained at the clubs at a charge of from \$2.50 to \$3.00 per week, though the top price was now \$4.00. The regular price for rooms in the village was \$1.50 per week if there were but one in a room, and \$1.00 per person if there were two. Washing was at the rate of fifty cents per dozen.

In the early nineties, one of the students paid a good part of his College expenses by acting as barber for the boys. His shop was on the fourth floor of Old Main, and the charge for a haircut was fifteen cents. In the village was a colored barber named Tom Dubois, whose shop was in the State College Hotel. Tom seems to have been quite a character, it being reliably reported of him that he was one of the three persons in the College community who sported a beaver hat: the other two were President Atherton and Dr. Armsby. One of the prized privileges of the students in the good old days was that of gathering grapes and fruit from the College vineyard and orchard in the fall of the year, nor were they slow to take ad-

vantage of it by bringing along their pillow cases and filling them with all the fruit they would hold. It was almost as much fun as the midnight raids on the orchards of the neighboring farmers, or making free with their cider for the cider scrap.

Except for the students not rooming in the College dormitories, who were excused from weekday chapel, attendance at all recitations, practicums, and chapel exercises was compulsory. The College bulletin board was located in the main hallway near the business office; there were posted schedules of examinations, names of textbooks, and other information needed by the students. The military bulletin board, upon which were posted the military orders, was placed in the same hallway opposite the east entrance to the chapel. At the extreme end of the hallway was a bulletin board for the Preparatory Department. There were no Saturday classes.

Standing in scholarship was determined partly by session work and partly by examination. In calculating session-grades for freshmen and sophomores, the examination grade was added to twice the session-grade, and the sum was divided by three to arrive at the final grade. For juniors and seniors the proportionate value of class work and examinations was left to the judgment of the professor. Grades were by letters, ranging from A for the highest to E for the lowest; those with D were conditioned, and those with E were required to repeat the course. There was daily military inspection of both dress and rooms. If the room were untidy or the shoes needed polishing, the offenders got a notice on the bulletin board, each such report carrying a penalty to be worked off on the following Saturday. At the beginning of the session of 1901-02, a long contemplated change was made by dividing the College year into two periods instead of three.

When the Trustees established a chair of English and Rhetoric in 1889 and appointed Professor Edgar F. Davis to

that position, an innovation was made which affected all the students in the institution. Professor Davis developed public speaking as an exercise held every Wednesday evening. Attendance was compulsory for all freshmen and sophomores, who gave declamations, while the juniors gave orations. This became a regular feature of College work and was good training for the boys, who, however, did not always appreciate its value and refused at times to take it seriously. For instance, when a certain freshman was on the platform getting off his piece, the sophomores decided to give him the "razz." The honor of the freshman class being at stake, the declaimer stood to his guns, and, undaunted by the din, spoke louder and louder in order to make himself heard; but the louder he spoke the more the sophomores jeered him. Professor Davis lost control of the situation for the nonce, and other professors in the building came running to the chapel to see what it was all about. Fortunately, everybody was able to see the funny side of it, and the sophomores escaped being punished for their breach of discipline. The stress placed by the faculty on rhetorical and essays is seen in the regulation that no student delinquent in these exercises would be permitted to enter any examination unless excused by special vote of the authorities.

For many years one of the great events at Penn State was the Junior Oratorical Contest. In February of each year the faculty selected from the junior class the six orators who had the highest standing in rhetorical and essays. Each orator was required to give advance notice of the subject of his oration, to submit it for professorial criticism, and to memorize it thoroughly for rehearsal. The Junior Oratorical Contest was held as a public exercise during Commencement Week, and to win it was a distinguished honor highly coveted by the participants. The faculty selected three suitable persons as

judges, and the award was made on the basis of fifty per cent for composition and fifty per cent for delivery—the latter taking account of elocution, gesture, and memorizing. Competition was keen, and no event of the year aroused greater interest insofar as the purely academic side of college life was concerned. To win it was almost as good as being captain of the football team.

The seniors were required to write a graduating thesis, the subject of which must be approved by the professor of rhetoric not later than the middle of the second semester, and must be in hand by June first. The theses were given due recognition by having their subjects published in the Commencement program. In view of their extra responsibilities, seniors might be excused six working days in any one semester for "original and continuous research and study in the several lines of advanced work pursued by members of the senior class." At graduation, first honors were awarded to fifteen per cent of those ranking highest in scholarship, provided a grade of not less than 83 was attained; and second honors were awarded to an equal number of those ranking next in scholarship, provided a grade of not less than 78 was made. The names of honor men in both groups were announced in the Commencement program and were printed in the College catalogue for the ensuing year. From the fifty per cent of the graduating class having the highest average grades on all subjects, the five students having the highest grades in rhetoricals and essays were selected as Commencement orators. From the five senior orators thus chosen the graduating class selected one as the valedictorian. These features continued throughout the Atherton Era, and beyond.

Discipline, which was under the control of the faculty, was very strict. The faculty minutes abound in references to violation of College rules and regulations, and to penalties im-

posed for such infractions of discipline. Penalties consisted of censure marks for minor infractions and of suspension or expulsion for more serious offenses. When a student had accumulated twenty-five censure marks, written notice thereof was sent to him and to his parent or guardian; and, if the number of such marks reached fifty, the offender was automatically suspended and could be restored to College only by application to the faculty.

Until the late eighties, there were but two types of student organizations on the campus—the Literary Societies and the Y.M.C.A.; thereafter organizations began to multiply. It will be recalled that the Washington and Cresson Literary Societies were organized promptly after the opening of The Farmers' High School, and that they played a significant part in student life. Their importance continued into the eighteen-nineties, when they began to decline. Testimony of alumni is unanimous in declaring that they were of great social and cultural value until on the eve of their dissolution. The principal social event of the week was the meeting of the Literary Society on Friday evening at 7:00 o'clock; and, as the hour approached, an air of expectancy seemed to permeate everywhere and to invest the meetings with an interest that the students of the present day, with their multiple activities, would find it hard to understand. Throughout their later history, both societies held their meetings in halls on the fifth floor of Old Main; and each of them had a reading room and library, which substantially augmented the College library. The students spent much time in the reading rooms, where might be found not only books but various home papers and periodicals—notably *Puck* and *Judge*, the comic magazines of the period. Membership was open to any student wishing to join, and there was considerable rivalry between the two organizations, especially in securing members at the beginning

of the College year. Each society hall had a seating capacity of about a hundred, with a platform at the front and a piano.

The program of the meetings, which lasted about an hour and a half, consisted of debates, essays, orations, and music. When the formal program was concluded, there was an intermission followed by a business meeting. After 1892 the Literary Societies began to lose ground, owing chiefly to the coming of the fraternities and to the development of other interests as the College grew. In 1893 and 1894, editorials in the *Free Lance* referred to the regrettable apathy existing regarding the societies and tried to stimulate interest in them, but without avail. In June 1895 they were dissolved, the hall of the Washington Society becoming the headquarters of the Y.M. C.A., and that of the Cresson Society a classroom of the English department. With their abolition, class debates and intercollegiate debating contests developed and enlisted considerable student interest. Competition was keen, and prizes were offered by President Atherton and Dean Pond. In 1900 a Debating Club was organized for the purpose of holding a series of debates with other colleges.

For many years both the Trustees and the faculty looked with disfavor upon fraternities, and refused to grant permission for their establishment at Penn State. At one time a pledge was exacted of freshmen to hold no membership in a secret fraternity, and on several occasions steps were taken to dissolve such secret organizations as existed. In 1872 a chapter of Delta Tau Delta was started at the College, but came under the frown of the faculty and was promptly eliminated. The next in order was the Latin letter fraternity known as Q.T.V., which was organized in 1884 and later became the Phi Kappa Sigma fraternity. In 1888 was formed a German letter fraternity, the Fow Epsilon Tset—a group which met in the cellar of Old Main, its chief purpose being

to control student politics and to have a good time generally. The Theta Nu Epsilon was a sophomore class fraternity, also with a flair for politics.

Meanwhile, the real fraternity movement at Penn State had begun to take shape. In January 1888 the Trustees lifted the ban on fraternities, but left their actual establishment to be approved by the faculty upon investigation of the character of the proposed organization. The first regular national fraternity to be established at the College was the Phi Gamma Delta, whose chapter was formed in the spring of 1888, to be followed in the fall of that year by Beta Theta Pi. When first established, both these fraternities occupied houses in the village, but later moved into homes on the campus, beginning with the Beta Theta Pi house erected in 1894. By 1905 there were nine fraternities at Penn State, these being, in the order of their establishment: Phi Gamma Delta, Beta Theta Pi, Phi Kappa Sigma, Sigma Chi, Kappa Sigma, Sigma Alpha Epsilon, Phi Sigma Kappa, Phi Delta Theta, and Delta Sigma Phi. Dr. Atherton looked with favor on their establishment for the social advantages to their members, but particularly as relieving the pressure upon the College for dormitories to house the rapidly growing student body.

Besides the eating clubs and the fraternities, there were certain other clubs which flourished in the nineties. The Adelphi Club, organized about 1893, was composed of fraternity members who combined for social purposes, especially to give several dances during the year. The Natural History Club, to which all students were eligible, was organized for the purpose of studying nature at first hand; it met weekly and was interested chiefly in biological studies. The Students' Press Club, inaugurated under the auspices of Professor Sparks, Principal of the Preparatory Department, was devoted mainly to awakening and encouraging literary activity

among the students. The club had a reading room in Old Main, which was kept well-stocked with newspapers and magazines for the exclusive use of the members. With its journalistic flavor, this organization smacked somewhat of a publicity department for the College.

In 1897, Professors Fred L. Pattee and J. H. Leete met with Messrs. Andrews, Diehl, Beaver, Reed, Neubert, Strohm, and Young, of the student body, to organize a dramatic club, which, as the oldest organization of its kind on the campus, has flourished throughout the years under the name of "Thespians." Proceeding promptly to hold rehearsals of classical plays, the Thespians performed at State College and neighboring towns like Bellefonte and Lock Haven. Among the first plays in its repertoire were *The Rivals*, *The School for Scandal*, *She Stoops to Conquer*, and *Lend Me Five Shillings*. The Mandolin Club served as an orchestra for these early performances.

In the spring of 1888 an Engineering Society was started, but did not succeed in effecting a permanent organization until two years later. The membership was confined to juniors and seniors, and meetings were held every Friday evening. The program consisted of two papers on engineering subjects, and a literary essay for cultural purposes. Freshmen and sophomores in the Engineering School were encouraged to become members of the Literary Societies to receive the benefits these offered. That the Engineering School should have recognized thus early the advantages to be derived by its students from an acquaintance with the humanities is not without its significance, especially in view of the fact that later experience has shown the desirability of cultural training for men in the technical professions.

The admission of women to the College gave an impetus to the study of music, which was recognized in 1874 as an

academic subject and has been regularly in the curriculum ever since. With the increased emphasis on social activities resulting from the establishment of fraternities and the removal of the ban on dancing, musical organizations began to multiply at Penn State. In 1890 the Philharmonic Trio was formed, consisting of a piano, a cornet, and a violin. The Cacophonous Quartet, organized about the same time, provoked much mirth by its take-offs on all forms of music then in vogue on the campus. A Choral Club was organized in 1897 under the leadership of H. H. Stoecker; and two years later came the Musical Club with ten instruments, principally banjos and jew's-harps. The Pharsonians put on minstrel shows from time to time, being received with considerable favor for their songs, jigs, and wisecracks. The Glee Club, composed of twenty voices, made trips to cities throughout the State and also gave Commencement concerts, besides assisting at special College exercises. The College Orchestra assisted at various functions and dances, and accompanied the Glee Club and the Thespians on their trips.

The students had long wanted a brass band, but lacked the money to purchase the necessary instruments. In 1900 they petitioned the Trustees for funds to organize a cadet band; but the Board, while approving the project in principle, did not feel warranted in voting the money requested. However, Dr. Atherton and General Beaver each subscribed fifty dollars toward a fund to start the band, and several others offered contributions. General Beaver, whose interest in the project was great, now wrote to Andrew Carnegie, explaining the movement and asking for a contribution of \$100 to help matters along. In reply, Mr. Carnegie wrote: "Please let me furnish the money for the college boys. I have directed my cashier to send you a check for \$800." So appreciative were the students of Mr. Carnegie's generosity that they dedicated

the next *La Vie* to him. Promptly organized under the leadership of E. E. "Patty" Godard, '03, the band practiced faithfully and was soon ready to appear on public occasions. The cadet band gave a great impetus to College music, and has always been a credit to the institution.

Not until the spring of 1901 did Penn State have an authorized College song. This was lamented by Dr. Fred L. Pattee, professor of English language and literature, who made a public appeal that someone compose such a song; and himself wrote one in April 1901. At the alumni dinner of that year it was sung for the first time, and General Beaver, the presiding officer and the president of the Board of Trustees, arose and said, "I hereby pronounce it the official song of Penn State." No committee had been appointed to act as judge, but by common consent "Alma Mater" was adopted as the College song upon the authority of General Beaver and with the approval of President Atherton. The original version consisted of six stanzas; but only the first four became standard, the last two being omitted. The music was that of hymn 316 of the College Hymnal, which bore the title of "Lead Me On." The students always stand with bared heads whenever it is sung, and it has become a tradition at Penn State to sing it after every intercollegiate game, no one being expected to leave until the last line has been sung.

Religious activities in this era centered chiefly in the chapel services and the Y.M.C.A. Under the direction of the faculty, compulsory chapel services were held in Old Main every weekday morning except Saturday, each professor using the service of his own church. The order of exercises ordinarily consisted of Scripture reading, a song and a prayer, the boys standing for the latter. The students are said to have liked having Professor Josiah Jackson as leader because he

was a Quaker and the spirit never moved him to pray, which gave the students an opportunity to sit with bowed heads and freshen up on their studies for the first class. The Sunday chapel service was conducted by neighboring ministers until 1894, when Dr. Lawrence M. Colfelt became the first regular College chaplain, thereby supplanting the haphazard method that had previously prevailed. At the services the classes were always seated in order, the seniors occupying the front rows and the other classes following behind them. On at least one occasion the chapel service was rudely disturbed by the students. The College had in its museum a human skeleton familiarly called "old John," and there was also a skeleton of a mule. The boys decided that it would be a fine joke to mount old John on the mule and usher him to the platform through a side door during the chapel service. This they did during the prayer, the result being an unforgettable spectacle gleefully recounted by some of the older alumni to this day. On another occasion the Bible was stolen from its accustomed place on the pulpit, thereby causing no slight embarrassment to the professor in charge of the service.

The Y.M.C.A. played an important part in the religious life of the students in this period, as indeed it has done consistently since its organization. It provided a center around which the Christian men of the College might rally for strengthening the religious influences of the institution. A devotional service was held every Sunday evening and was generally led by a student, but occasionally was addressed by a member of the faculty or by an outside speaker. Bible study was fostered by organizing classes which met on Sunday mornings, with professors serving as teachers. On its social side the Y.M.C.A. sought to bring the new men into closer touch with each other and to promote fellowship among the students. A number of social gatherings were held during the year, begin-

ning with the reception to freshmen when College opened. The association also published annually the *Students' Handbook*.

The first genuine student publication at Penn State was the *Free Lance*, which made its appearance in April 1887. This periodical, which was published monthly, served as a medium of student opinion on matters of current interest and also fostered original writing through its literary department. The subscription price was one dollar per year, and single copies could be had for fifteen cents. The first number was looked forward to with keen interest, and received an enthusiastic welcome upon its appearance. A number of students gathered at Struble's Station on the Bellefonte Central Railroad and accompanied the package of periodicals down College Avenue, while a larger number, anxious to secure a copy, waited at the gateway on Allen Street. In 1895 the incoming editorial staff changed both the policy and the form of the publication, which now became primarily a literary monthly and ceased to reflect campus life to any great extent. The last issue of the *Free Lance* appeared in April 1904, when it was succeeded by the *State Collegian*—a weekly whose first number made its bow to the public in September 1904. It was established by a student board, and served as a good medium of student opinion and activities. *La Vie*, the College annual, was prepared and edited by the Class of 1890, the first number appearing in 1889. It continued to be published regularly thereafter by the junior class to 1930, when the senior class took over its publication. The first issue of the *Students' Handbook*, published under the auspices of the Y.M.C.A., appeared in 1894-95; and since that time it has continued to be published as an informational guide intended primarily for freshmen. This completes the list of student publications in the Atherton Era.

Of all the extracurricular activities, athletics probably

held the first place in student interest. Since a later chapter is devoted to the rise and progress of athletics at Penn State, it is not proposed to discuss the subject in this connection other than to say that it was in the period under review that athletics at the College became well established and that the Athletic Association was organized. Interest in sports developed rapidly after 1887, and the teams made a creditable showing in intercollegiate contests. As this interest developed, it naturally gave rise to a demand for better athletic facilities—a demand which was met in part by the construction of Old Beaver Field and the erection of the Track House. By the close of President Atherton's administration the four major sports of football, baseball, basketball, and track had reached a considerable stage of development, and increasing attention was being paid to the minor sports.¹

In addition to the activities previously described, various customs and amusements, not hitherto prevailing, came into existence after 1887 as the students exercised their inventive genius to give spice to college life. Class scraps of one sort and another became the order of the day. The first cane rush was in 1888, bringing with it the excitement commonly attending such contests. Unfortunately, however, since the idea was to see which class could get the most hands on the cane, somebody was almost sure to get hurt in the scrap. This led to its abandonment in 1901, particularly because of possible injury to athletic prospects. The cane rush was succeeded by a football game as the regular clash between freshmen and sophomores, since this was considered less dangerous to the participants. The picture scrap was also the occasion of clashes between the two classes, the sophomores being on the alert to prevent, if possible, the taking of the freshman class picture, and giving battle if they happened to appear on the scene at

¹ For a more detailed account, see Chapter xvii.

the time. For many years the freshmen were accustomed to hold an annual banquet; but if by any chance the news of the time and place leaked out, the sophomores endeavored to prevent it, and this led to some lively skirmishes until the practice was abandoned in 1910. Another custom dear to the hearts of the students was the cider racket, which was the occasion of much fun—often at the expense of a few black eyes and broken noses. The freshmen's great problem was how to get a barrel of cider on the campus and within the precincts of Old Main without being detected by the lynx-eyed sophomores, and there was plenty of opportunity for the exercise of ingenuity to keep the matter a dark secret. Sometimes an empty barrel, or a barrel filled with water, would be brought in with a seeming attempt at secrecy to divert attention from the real barrel of cider smuggled in somewhere else. On one occasion the cider barrel was brought to the campus in a laundry basket on a cart driven by a student disguised as a rustic.

One of the most interesting and most persistent of the class contests was the flag scrap, which flourished prodigiously from 1886 to 1916. In the beginning the freshmen always sought to place their flag on the tower of Old Main, but if the sophomores got wind of it there was sure to be an all-over contest upon the stairways leading to the tower or even on the platform of the tower itself. In any event, it was too great an affront to the sophomores to allow it to stay there if by any mischance it had been placed there secretly. Later, the Armory was substituted for the tower of Old Main as the place for the emblem. On one occasion the freshmen, mindful of the fact that Sunday was always strictly observed at the College, placed their flag on the top of the Armory on a Saturday night, thinking that it would be left undisturbed at least for a day. However, the sophomores thought otherwise

and, immediately upon leaving morning chapel, made a dash for the Armory, one of its more daring members succeeding in removing the flag. This the sophomores were able to do because the freshmen were the last to leave chapel, but the latter immediately made for the Armory and a fight occurred. By this time Dr. Atherton appeared on the scene and, after severely reprimanding all and sundry for desecrating the Sabbath, promptly sat down and wrote to the parents of the boys describing their unseemly conduct on the Lord's Day. It appears, however, that these letters did not carry their usual weight since they were written on Sunday and were themselves considered a violation of the sanctity of the day. At least, the boys professed to think they had a point here, and proceeded to make the most of it. Though the record does not tell us, and further the deponent sayeth not, it would seem that the president, upon reflection, may have decided that he had been a bit hasty. It was his custom to think before he spoke, but this time he spoke before he thought: even Homer sometimes nods, and none of us makes a hit every time he comes to bat. The Class of '95 was the first to erect a flag pole on the campus, and the sophomores were regularly on guard to prevent the flag from being run up the pole, with resultant contests long to be remembered by the participants.

Dancing was not permitted on the campus until 1890, when the Trustees, on petition of the students, lifted the ban. Since there were few co-eds in the College, there were only three dances a year to which girls were invited; and most of these were from a distance. The Senior Hop was held in April, and the Junior Assembly during Commencement Week. The boys sometimes held dances among themselves, the most famous of these being the mask ball. The origin of this affair grew out of an organization known as the "State College 400," which had its inception in the session of 1890-91. At

that time there were but six or eight girls residing in the Ladies' Cottage, and only a handful of boys were sufficiently in favor to be invited to the Cottage. Those who felt themselves discriminated against organized the "Four Hundred," no member of which was permitted to enter the Cottage on any pretext whatever. In order further to punish the young ladies for the crime of having a few favored callers, the Four Hundred arranged for a mask ball to which no girls were invited. The first of these exclusive functions was held in the Armory on February 20, 1891, and the proceeds were devoted to paying the baseball club out of debt. The mask ball, which was always a strictly stag affair and was regarded as one of the most mirthful events of the year, was held regularly thereafter for the benefit of athletics.

Around 1890 there were four cannons on the campus—two steel ones which were used for artillery drill, and two brass ones which were relics of the Mexican War. One of the favorite penalties inflicted on offenders was to require them to polish the brass cannons, which were purely ornamental. The students sometimes shot off a cannon to celebrate certain events: a case in point was when two of them, being among the few Democrats on the campus, fired a shot to celebrate the election of Governor Pattison as Democratic victor in the gubernatorial election of 1892. A custom of a different nature was the practice of burying the professors on the lawn of the front campus. This appears to have originated in 1889, when the students one morning found a grave in a flower bed with a tombstone on which was inscribed, SACRED TO THE MEMORY OF — — —. GONE BUT NOT FORGOTTEN. Regularly thereafter a number of the professors were buried each year until the practice ceased in the nineteen-twenties.

One of the student pranks which went down in history has to do with a group who went to Pine Grove Mills to at-

tend a singing school and took along with them the ingredients for making hydrogen sulfide, which started generating in the middle of the service. This broke up the meeting, of course, and the boys made the headlines of the newspapers, including the *Police Gazette!* Needless to say, their breaking out in print in this way produced a sensation on the campus. Another interesting incident still remembered by some of the older alumni revolves around C. H. "Calamity" Musser and the Johnstown Flood. The several versions of this affair do not agree in all particulars, but the one given is a firsthand account by an alumnus who was present at the time. It seems that "Calamity" had gone home for a vacation but failed to return on time, alleging high waters as his excuse. The faculty, as yet unacquainted with the extent of the flood, declined to believe his story and proceeded to suspend him. Whereupon his class, '92, backed him up by bolting an examination and playing a game of baseball in protest against Calamity's suspension. For this act of insubordination the entire class was suspended. In the emergency they marched to the field near the University Inn and pitched tents, calling the encampment "Camp Suspension." Here they remained for several days until the faculty, now realizing the truth of the flood story, reinstated the class without further ado.

In the fall of 1905 occurred the most serious disagreement between the students and the faculty in the history of the College. The remote cause of this upheaval, known as the "great strike," was the general feeling among the boys that the rule regarding attendance upon classes was too stringent; but its immediate occasion was the posting of a faculty notice forbidding them to use any of their six per cent allowed absences within twenty-four hours before or after vacation. This prompted the upperclassmen to send in a petition asking for a modification of the ruling, which the faculty rejected on

the ground that it was couched in the form of a demand. The students countered by sending an ultimatum to the effect that if favorable action were not received within a given time, they would take independent action. When no reply to the ultimatum was received, the boys held a mass meeting and voted to refuse to attend classes unless granted concessions. The faculty, however, stood its ground and refused to receive a committee of students so long as they remained in revolt. A secret ballot revealed that all but seventeen of the students favored a continuance of the strike; and the situation now became tense. Finally, two members of the Board of Trustees and two representatives of the Alumni Association, constituting a trustee-alumni committee, arrived and canvassed the situation. At their request, President Atherton, who had been ill, appointed a faculty committee to meet with the trustee-alumni committee and the student committee to arbitrate the difficulty. After a discussion of the matter in all its bearings, an agreement was reached that the students should have more ready access to administrative officers than hitherto, and that no retaliatory measures would be adopted if they returned to College. The student committee was given the privilege of meeting with the faculty at some future time, and of having some voice in making recommendations to the Trustees concerning holidays. The following morning the students, after having absented themselves for ten days, returned to classes. Perhaps the chief significance of the whole affair was that it led the College administration to consider more seriously than heretofore the advisability of some form of student government. Had not President Atherton been ill, there would, in all probability, have been a more speedy settlement of the dispute.

Student "customs" in force in the later Atherton Era required freshmen to occupy the rear seats in chapel and to go

out last at the close of all chapel exercises. They were not allowed to be out after nine o'clock in the evening unless accompanied by an upperclassman, or to smoke a pipe on the campus, or to wear College colors during their first term in College. They could carry canes only if they defeated the sophomores in the annual football contest between the two classes. Whenever a football victory was celebrated, they were required to carry fuel for the bonfire; and they were to keep off the grass at all times. Finally, they were never to speak back to an upperclassman, no matter how great was the provocation. The rules for women students, whose number in the nineties ranged between six and sixteen, were particularly strict. They were not allowed to receive visits from gentlemen in the parlor or elsewhere, or to accompany them outside the building, without the previous permission of the Lady Principal. Although they were comfortably housed in the Ladies' Cottage, their number in this era tended to decrease rather than otherwise, Penn State seeming to have but few attractions for them.

In the eighties and nineties Commencement exercises were extended over four or five days, and were conceived of as "Commencement Week." Thus in 1887 the exercises began with the baccalaureate sermon on Sunday and closed with the Commencement address to the graduates on Thursday. Between these dates the principal events were the annual address before the Y.M.C.A., the cadet drill, the junior oratorical contest, the annual meeting of the Board of Trustees, and the address at the alumni dinner. The exercises of the graduating class consisted of five orations, interspersed with music, the conferring of degrees, and the awarding of prizes. The most coveted prize was the one awarded to the winner of the junior oratorical contest, a distinguished honor. Other prizes were the McAllister Prize, awarded to the student who ex-

celled in the sub-freshman class; and the Agricultural Prize, given to the member of the senior class who excelled in the studies of the agricultural course. Practically the same order of Commencement exercises was followed until 1896, by which time the program had been shortened to conclude on Wednesday instead of Thursday. Until the erection of Schwab Auditorium, the exercises were held in the chapel in Old Main, with the faculty seated on the platform and the graduating class occupying the front seats. The first class to wear the cap and gown was that of 1892; thereafter the custom was discontinued for several years and then renewed permanently. The faculty did not adopt the cap and gown until 1903, when it was decided at a special meeting called to consider the question that these should be worn by members of the faculty on public occasions during Commencement Week.



*POPULARIZATION
OF THE COLLEGE*

1908-1920

WE HAVE SEEN that in the administration of President Atherton the weak, struggling institution to which he came developed into a strong, vigorous College. There were many uninformed people, however, who still tended to regard it as merely an agricultural school situated in a somewhat remote section of the State and serving a local clientele. Although its scholastic standards were high and its scope of instruction was broad, people generally did not realize this and were slow to recognize the stature to which the College had grown. Hence arose the need to popularize it throughout the length and breadth of the Commonwealth. It was felt that if the people realized the worth of their own College and appreciated more fully the service it was rendering to the State, they would cherish for it a sentiment of pride and loyalty and would rally more strongly to its support. As a public institution dependent upon legislative aid for its maintenance, its progress was conditioned upon public favor, which in its turn would be forthcoming only to the extent that the College was recognized as performing a useful public function.

The problem now was not to establish the institution on a firm foundation nor to fix the general lines of its policy,

since this had already been done; but rather to extend its sphere of usefulness and to hasten its development by making its name a household word in every corner of the Commonwealth. In selecting a successor to Dr. Atherton, the Trustees were persuaded that the situation required a president who possessed not only administrative ability but also an engaging personality calculated to make friends for the College. The traditions of Penn State have always been democratic, nor has it ever forgotten its mission as the people's College. Let the people themselves once realize this truth fully and success was assured. Canvassing the situation thoroughly, the Board took its time in selecting a president, and it was not until November 1907 that, at a special meeting, the vacancy was filled by the election of Dr. Edwin Erle Sparks, professor of American history at the University of Chicago. At this meeting General Beaver stated that he and other Trustees had conferred with Dr. Sparks at different times and heartily endorsed him for the presidency, but that he had consented to have his name placed in nomination only on condition that no opposition manifested itself; and that he had accompanied this statement with a paper, now placed before the Board, setting forth his views as to the policy to be pursued in the event of his election. In this paper Dr. Sparks stated that his aim as president would be to secure a worthy standing for the College in the State and Nation, and to arouse public sentiment to its advantages and needs. While he thought the work now being done in the institution was good, he was of the opinion that its scope and character should be broadened until it met "the special requirement and aptitude of every young man and woman in the State of Pennsylvania." Declaring that just as the old-time recluse in teacher and student had passed away, "so the cloister aspect of a college is a thing of the past," he went on to say the present conditions in public



EDWIN EARLE SPARKS
President of the College 1908-20

life demanded that the College be kept before the people. He gave the Trustees to understand, also, that he would expect to have a rather free hand in controlling the budget and in the matter of appointments. After a full consideration of the views thus presented for their consideration, the Board unanimously elected Dr. Sparks to the presidency, with the understanding that he would enter upon his duties on June 1, 1908.

Edwin Erle Sparks, eighth President of the College, was born on a farm in Ohio and was educated largely through his own efforts, graduating from Ohio State University in 1884 with the degree of B.A. While going through college he supplemented his slender resources by acting as a "cub reporter" for the *Ohio State Journal*, and worked during vacations as a salesman in a book store. Upon graduation, he served for some years as teacher and principal of public schools in Ohio until called in 1890 to the position of principal of the Preparatory Department of The Pennsylvania State College. Here he made an excellent reputation as an administrator and teacher. In 1895 he left the College to attend the University of Chicago, where he secured the degree of Ph.D. and was appointed an instructor in history, his special field of study. Rising rapidly to full professorial rank with the title of professor of American history, he was given work also in the division of University Extension and delivered many lectures in all parts of the country. While at Chicago he became the author of several historical works, notably *Expansion of the American People and National Development, 1877-1885*. He was an excellent speaker and a lucid writer, and had withal a delightful personality which won him a host of friends. Distinguished in appearance and both dignified and gracious in bearing, he attracted attention in any group. In the judgment of the Trustees his substantial scholastic attainments, combined with

his administrative ability and rare social qualities, rendered him just the type of man required for the presidency of the College; nor was their confidence in him misplaced.

To popularize the College with the people, to build up its patronage, to enhance its prestige, and to give it its rightful place among the educational institutions of the country, was the supreme task of President Sparks, who measured up admirably to the great opportunity of which he was fully conscious. Yet the task was not his alone, nor the credit his alone, since he was advised and sustained by a strong Board of Trustees and was supported by an able faculty and a loyal body of alumni. Nevertheless, we would as lief clip the wings of a bird as to detract one iota from the credit that rightfully belongs to Dr. Sparks, who labored wisely and well for the institution so dear to his heart. Although less than a quarter of a century has passed since his presidency closed, he is already by way of becoming one of the cherished traditions of the College.

The views of President Sparks, as indicated in his statement to the Trustees at the time of his election, were further elaborated on various occasions, particularly in his annual reports to the Board. Fully alive to the opportunity that was his of striking out along new lines of expansion, he favored the development of correspondence courses and of extension work and the establishment of a summer session; and was eager to adjust agencies and methods to meet the demands of the times. He maintained that, in addition to educating the students within its walls, the College was under obligation to extend the scope of its instruction to include those who were denied the privilege of attending classes on the campus. In line with this policy, with which the Trustees were in hearty accord, he favored popularizing the institution by all legitimate means. He coined the slogan "Let us carry the College

to the people," and this may well be regarded as the keynote of his administration. In accomplishing his objective he went all over the State making addresses at all sorts of gatherings, and encouraged the faculty to do likewise. In order to bring more people to the College to observe its work, he enlarged the scope of Farmers' Week and arranged for conferences of high school principals on the campus. He also let it be known that he was strongly in favor of establishing the closest possible relations between the College and the public school system of the Commonwealth. The development of the extension work of the institution was one of the outstanding features of his administration. He established a Publicity Department to aid in keeping the College before the public, and was not indifferent to the advertising value of athletics. He was full of ideas and energy, and was tireless in his efforts to further the interests of Penn State. A familiar figure at educational gatherings or at meetings of learned societies, he felt equally at home at a high school commencement or a county fair. His services as a public speaker were in such demand that he is said to have delivered an average of fifty addresses a year throughout his presidency. Everywhere he went the people heard him gladly, and he built up an increasing store of good will for the College.

President Sparks was in sympathy with the policy hitherto pursued by the College of developing its work along broad lines in conformity to a liberal interpretation of the Morrill Act. Hence he sought to extend the scope of instruction in the liberal arts. He wanted an institution that would meet the needs of the people of Pennsylvania—not one that would serve one interest only, or two, or three, but all. In proclaiming the necessity of continuing the College on the broad foundation on which it then stood, he explained that a state-supported institution should provide courses of instruction

adapted to the needs of all classes, especially in a country where vocations are not likely to descend from one generation to another. He held that it should be the aim of the College "to search every channel of usefulness to the people of Pennsylvania," and to make every effort to foster State pride in the Commonwealth's own institution.

The development of the State-wide service of the College through the promotion of extension work on an enlarged scale was a favorite idea of President Sparks and enlisted his hearty support. Extension work had long been carried on at Penn State, but only to a limited extent; it was now to be developed far beyond all previous bounds. In 1910 the Trustees, who were also impressed with the importance of this type of instruction, appointed a committee to study the subject and to report their findings. The committee brought in an elaborate report showing the progress made in extension work in the past several years and recommending its enlargement. Appeals to the Legislature resulted in an appropriation of \$20,000 in 1913 for extension instruction in agriculture and home economics. A great impetus was given to this work by the Smith-Lever Act of 1914, which fitted in admirably with the program of Penn State to carry the College to the people.

With the popularization of the College throughout the Commonwealth and the attendant growth in numbers and prestige, there was more than ever a need for increased legislative aid to carry on the work efficiently. Fortunately for the institution, the dominant political organization of the time, as represented by the Republican party and its leaders, was generally well-disposed toward the College; and the governors were willing to sign bills appropriating increasingly large amounts to Penn State. On more than one occasion Senator Penrose, Senator Crow, and other influential members in the party exerted their influence in behalf of the College; but its

most enthusiastic supporter during Dr. Sparks' administration was Governor John K. Tener (1911-1915). Governor Tener's sympathetic understanding of the aims of the College and of its service to the Commonwealth was chiefly responsible for the large appropriations received during his administration, these being considerably in excess of any hitherto received in the history of the institution. In Dr. Atherton's time the maximum appropriation, that of 1905, was \$252,805. During the incumbency of Dr. Sparks the first appropriation, that of 1909, amounted to \$530,999. While Tener was governor, however, the appropriations to the College jumped to \$805,000 in 1911, and to \$1,226,000 in 1913. In the last year of President Sparks' administration (1919-20) it climbed to \$1,781,000.

The greater recognition accorded Penn State in this period was due to various causes, among which may be mentioned the magnetic personality of Dr. Sparks and his popularity with the public; and the greater appeal which the institution was now making because of the larger service it was rendering to the people. Nor must it be forgotten that the wise policy pursued by the Trustees, and their influence, collectively and individually, was of great consequence in cementing the ties that bound the State more closely to the College. If all the careful planning and prudent management of this body of men were known, it would be found that not only the institution but the people of the Commonwealth at large owe them an eternal debt of gratitude. The enlightened policy of popularizing the College was now bringing its legitimate reward. The influence of the growing body of alumni was also a factor in the situation.

If Dr. Sparks' administration was significant in carrying the College to the people, it was no less so in building up the student body, which increased in this period from 1151 to 3271 for resident students in the regular session. The enrollment

in the Summer Session, inaugurated in 1910, increased from 146 the first year to 1045 in 1920, making a total of 4316 students for the regular session and the Summer Session combined. This extraordinary growth, which was attained in a period extending over only twelve years, serves to show the magnitude of the results accomplished through the policy adopted by the College in this era. This does not mean to say, however, that the astonishing growth of the institution at this time was due entirely to the efforts of the president and of the Board, since other factors were undoubtedly involved. It seems certain that the College, by reason of the momentum previously gathered, would have registered a considerable increase in any event. Furthermore, this growth coincided with a period in the educational history of the country when the colleges and universities generally were growing rapidly. Nevertheless, there can be no doubt that the progress of The Pennsylvania State College in this period was greatly accelerated by the measures adopted by the College authorities to promote it. In the session of 1912-13, the enrollment passed the 2000 mark for the first time, and in that of 1919-20 it passed the 3000 mark. Except for a slight decline during the sessions of 1917-18 and 1918-19 as a result of the First World War, the number of students increased steadily throughout Dr. Sparks' administration. So rapid was the growth that by 1913-14 it became necessary to restrict the number admitted to the freshman class—a circumstance which became a regular feature thereafter. Instead of admitting all who apply, Penn State selects from the applicants those with the highest scholarship rating, and has been doing this regularly for thirty years or more. In 1913 some 800 students applied for admission, but only 600 were admitted, these being the ones selected on the basis of scholarship. A noteworthy feature of the enrollment was the increasing number of women attending

the College—an increase in this period from 19 to 263. By erecting an addition to the Ladies' Cottage and by converting McAllister Hall into a women's dormitory, enlarged accommodations were provided for this group of students. Although these facilities fell far short of the needs of the situation, the course of the College was set for a constantly increasing number of women students in future, and there was a growing recognition of the obligation to provide for their requirements.

The growth of the College necessitated administrative changes in an institution which, though bearing the name of "college," was in fact a university. Before the close of President Sparks' administration The Pennsylvania State College, despite the name to which it clung, had reached the proportions of a genuine university, and this may well be considered a significant fact in its history. Its affairs could no longer be administered after the manner of a small college, or even of a large college, but called for a university organization. With the creation of Schools presided over by deans, it had already partially attained this status under President Atherton; but in other respects its organization had been much the same as that of small colleges, with the president performing all manner of duties. It has been noted that a long step forward in organization was taken during the interregnum between the administrations of Presidents Atherton and Sparks; but this proved to be inadequate to meet the needs of an institution of several thousand students such as the College had now become. Hence we find new administrative features added from time to time as the institution moved forward by leaps and bounds.

The first of a series of administrative changes was the abolition of the Preparatory Department by action of the Board of Trustees in November 1908, when it was decided that, at the end of the academic year then in progress, this

department should be dispensed with as being no longer needed. The next change was the establishment of the School of the Liberal Arts—a project warmly espoused by Dr. Sparks. It will be recalled that hitherto the work of the College in liberal arts subjects had been loosely organized into two schools known as the School of Language and Literature, and the School of History, Mathematics, and Philosophy—an awkward and unsatisfactory arrangement. Hence, upon the petition of the united faculties of the two Schools, the Board, at its meeting in January 1909, decided to combine them into one administrative unit under the title of "School of the Liberal Arts." By this action the work of instruction was now divided into five schools—Agriculture, Engineering, Natural Science, Mines, and Liberal Arts—along with the independent departments of Home Economics and Industrial Art, and the Institute of Animal Nutrition. Dr. Sparks served as acting dean of the new School until the election of Dean S. E. Weber, who began his work with the opening of the session of 1909-1910. Following hard upon the creation of the School of the Liberal Arts was the establishment of the Summer School for Teachers, a project in line with the policy of rendering the greatest possible service to the people of the Commonwealth. The Summer Session, first held in 1910 with an enrollment of 146, increased within ten years to 1045. Except for the registration fee of five dollars there was originally no charge, the declared purpose of the six-weeks' session being "to increase the efficiency of the public school system by the better preparation of its teachers."

Now that the College was expanding at a rapid rate and promised yet greater growth in the immediate future, it was deemed advisable to reorganize the business office in the interest of greater efficiency. Consequently the Trustees appointed a committee, consisting of Messrs. Vance C. McCor-

mick and H. V. White, to prepare a plan for the reorganization of this office, especially in relation to the financial agent and the treasurer. In their report to the Board in January 1910, the committee declared that the energies of the treasurer and the financial agent were "too widely scattered and their duties too often overlap to secure the best results"; and recommended instead the employment of one man to administer the business affairs of the College. This officer, to whom was given the title of Treasurer, was to be responsible only to the President and to the Board of Trustees; and was to have the appointment of the employees of the business office, subject to the approval of the President and of the Executive Committee of the Board. Upon the adoption of the report, D. K. Peet was appointed head bookkeeper and John Hamilton was requested to continue as treasurer until his successor should be appointed under the new plan. A year later John I. Thompson, Jr., was appointed treasurer, and the title of Mr. Peet was changed from bookkeeper to College accountant. This arrangement continued in force until 1918, when the Executive Committee created the position of Comptroller of the College, who was given charge of the business administration and was empowered to organize the different departments concerned with the property and business affairs of the institution. Raymond H. Smith, '05, was appointed comptroller and entered upon the duties of his office May 1, 1918. It was understood that the comptroller would proceed promptly to organize a Department of Grounds and Buildings. Owing to the expansion of the physical plant of the College, the position of Superintendent of Grounds and Buildings assumed greater importance in the general scheme of things than had hitherto been the case. In addition to his duties in connection with the College farm, W. C. Patterson had held this position from 1872 to 1909, and had been succeeded by C. L. Hollobaugh from

1911 to 1915. In 1916, R. I. Webber was appointed Superintendent of Grounds and Buildings and served in this capacity until his death in 1929, when he was succeeded by George W. Ebert, now in charge.

The growth of the College led to a reorganization of the system of registration and to the appointment of a College Examiner. In June 1909 Professor A. Howry Espenshade was appointed Registrar of the College. The whole system of registration was promptly overhauled and placed upon a satisfactory basis. By 1919 the work of the Registrar's office had increased to such extent that Professor Espenshade was relieved of his teaching duties to enable him to devote his whole time to this work. He had been aided by an assistant registrar, who prepared schedules of classes and examinations; but the rapid increase in the number of students with advanced standing seeking admission to the College rendered the work so burdensome that it was found necessary to appoint another officer to have charge of this phase of registration. Hence in March 1920, Dr. C. E. Marquardt was appointed College Examiner; at first for part time, but since 1923 for full time.

The increase of the student body led also to certain changes in student government and to the appointment of a Dean of Men and a Dean of Women. President Sparks, always interested in student welfare, was desirous of averting the danger that the faculty administration would operate in such a way that the personal relations between teacher and student would tend to be less intimate as the number of students multiplied. To avoid such a contingency and in the interest of a due regard to the student's personality, he established the freshmen adviser system, which went into effect in the session of 1909-10. The freshman class was divided into groups of about thirty each; and for each group was appointed a freshman

adviser, who aided in registering them and kept in close touch with them throughout the session. Somewhat later, student government was considerably expanded: the original Student Council was supplemented, in the fall of 1913, by the College Tribunal, whose function it was to try all students accused of breaking College customs. In the following year was established the Student Board, whose special function it was to prevent, as far as possible, friction between the faculty and the student body. Finally, there was the Honor Committee, which conducted investigations and trials of all students accused of dishonesty in examinations and quizzes. The Honor System was adopted by an overwhelming vote of the students in March 1915, and was promptly approved by the faculty. For various reasons, however, the system failed to work satisfactorily and was therefore abolished in May 1921. But the system of student government as a whole proved well worth while and became a permanent feature of student life, expanding still further with the growth of the College.

A further development in harmony with the policy of promoting student welfare was the appointment in 1912 of Dr. Arthur Holmes to the newly created position of Dean of the General Faculty. Although the more formal duties of Dr. Holmes required him to preside at faculty meetings, to act with committees, and to attend to various minor administrative matters, much the larger part of his time was devoted to the students. Through personal contacts and conferences he sought to aid them in their difficulties and to point them to high ideals and clean living. Upon his resignation in 1919, the office of Dean of Men was created and A. R. Warnock was appointed to this position, which he still holds; and at the same time Margaret A. Knight was selected as Dean of Women. In 1923 Miss Knight was succeeded by Miss Charlotte E. Ray, who is still in charge. Another move in the

direction of student welfare, necessitated by the growth of the College, was the provision for a more adequate health service. The first regular College Health Service was put into operation in January 1915 under the direction of Dr. W. S. Forsythe, formerly of the health staff of the University of Michigan. This service, which was destined to expand tremendously, was originally housed in a residence on the campus and was supported chiefly by an assessment of one dollar per capita upon the students.

With a view to popularizing the College to a greater degree than had hitherto been the case, a Department of Publicity was created in the summer of 1914 and was placed under the direction of A. O. Vorse as news editor. Mr. Vorse, who was also an instructor in journalism, endeavored to put the institution before the eyes of the world as far as circumstances allowed. Since this somewhat casual method failed to meet the needs of the situation, it was decided in the fall of 1919 to establish a full-fledged Department of Publicity as a part of the division of general administration, responsible to the President of the College. It served a useful function in gathering College and departmental news and distributing it to the press, and in editing official College publications. Its original personnel, since expanded, consisted of D. M. Cresswell, '18, department head, one assistant, and one clerk. Later, it was renamed Department of Public Information.

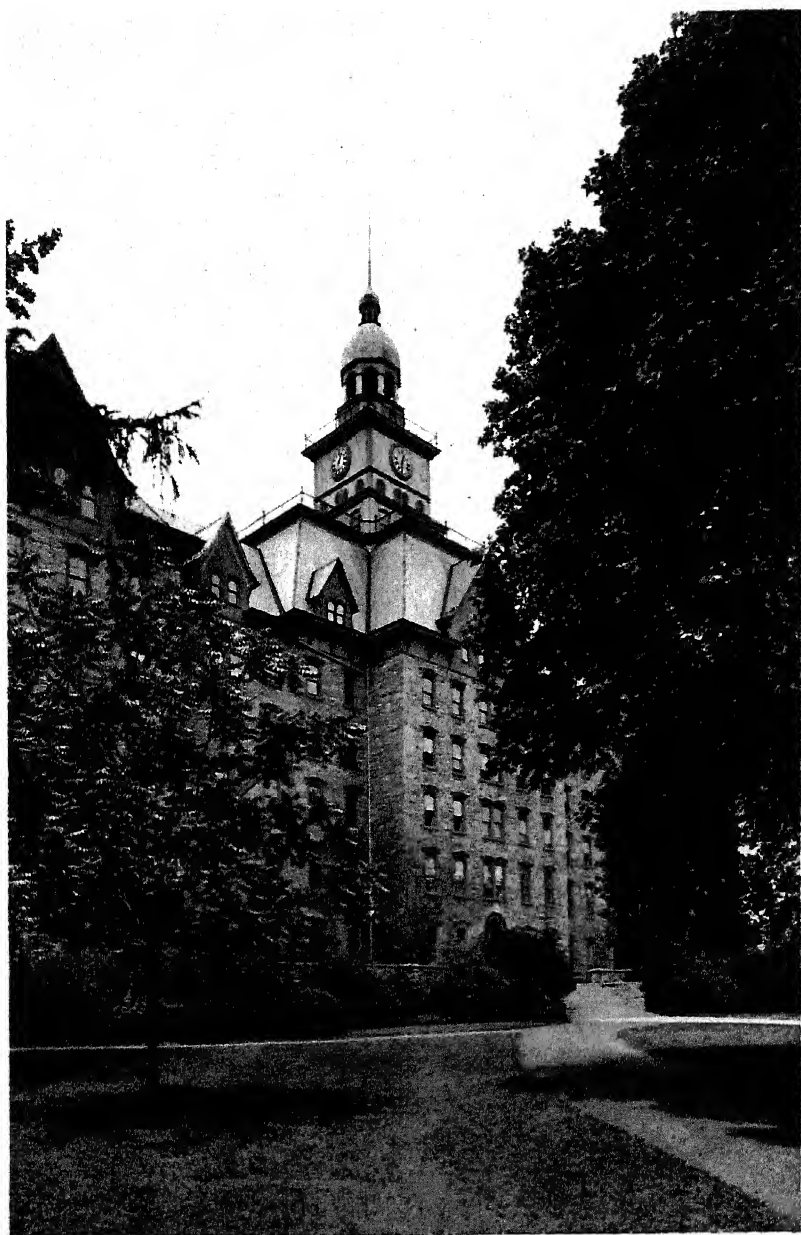
The administrative changes which we have described were accompanied by a development of the physical plant and its equipment. From the beginning of its expansion under President Atherton, the College had generally experienced difficulty in securing from the Legislature appropriations to enlarge its plant in proportion to its needs. Not infrequently it had been forced to resort to temporary buildings to provide accommodations for housing the students or for conducting classes. In

the Atherton Era a number of buildings had been erected, some of them substantial but others of a temporary character, and these had barely sufficed to meet the requirements of that day. Now that the College was expanding at a tremendous rate, the need for additional buildings was urgent. In 1909 the Chemistry Annex, a rather large temporary structure familiarly known as the "Bull Pen," was completed, relieving some of the pressure for laboratories and classrooms. A small but substantial building was erected in 1915 to house the School of the Liberal Arts in part, this being the South Wing of the imposing Liberal Arts building which was later completed. There was but little money coming from the Legislature for enlargement of the plant until the administration of Governor Tener, whose friendship for Penn State manifested itself in the exceptionally large legislative appropriations of 1913. This grant was most timely in that it not only provided funds for the erection of buildings to relieve somewhat the crowded conditions then existing, along with better equipment for carrying on the work, but also because it permitted the admission of more students than would otherwise have been possible. In the use of this fund, aggregating about \$400,000, the general plan of the Trustees was to consider the needs of all the Schools; and, as Dr. Sparks expressed it, "to bring all parts of the College forward rather than to favor one at the expense of the others, and to erect portions of several buildings rather than to place the entire sum in one structure for one School." Unlike previous appropriation bills, the Act of 1913 did not name the specific buildings to be erected, but left this to be determined as the judgment of the Governor might decide. Inasmuch as the Governor was disposed to work in harmony with the College authorities, this plan proved to be very satisfactory.

Having money to spend on buildings, the Trustees ap-

pointed a committee, consisting of Messrs. Hutchinson, Mitchell, and White, in cooperation with President Sparks, to have a general supervision of the building program. This committee, with the Lowrie Plan of 1907 in mind, called upon Mr. Lowrie to make certain modifications in his plan in order to conform more closely to the new ideas as to the probable growth of the College; and the principles regarding the location of future buildings were agreed upon. It was decided not to locate any School group where there was likelihood of conflict with any other group in any possible future expansion; to locate groups with reference to their relations to each other in order to save time in the movement of classes; to arrange groups in the form of an incomplete quadrangle of three sides; to select harmonious building materials for each group; and to eliminate some of the roadways, especially those used for general hauling through the campus. Messrs. Day and Klauder of Philadelphia were engaged as architects, and work on the plans was begun promptly. The addition to the Woman's Building was completed in September 1913, and the Horticultural Building in 1914. With the exception of the Chemistry Building (Pond Laboratories), which required additional funds for its completion, all the structures provided for by the appropriation of 1913 were completed and in use by the end of 1915. Besides the buildings just mentioned, others constructed at this time were the Stock Judging Pavilion, the Dairy Barn, Engineering Unit D, and the New Mining Building, or eight in all, at a cost of about \$404,000. The new buildings were well constructed, and were attractive in appearance. Although they afforded relief in many crowded quarters, they provided for only immediate needs and within a year the laboratories and classrooms were already congested.

The rapid growth of the Engineering School in particular, which throughout this period continued to attract the largest



OLD MAIN 1921

number of students, called for new buildings and equipment to meet pressing needs. Between 1913 and 1920 were erected Engineering Units A, B, C, and D, to complete the engineering group of six buildings in addition to the Main Engineering Building completed in 1893. The burning of the original structure, long the joy and pride of the School of Engineering, occurred on November 25, 1918, necessitating the purchase of about \$75,000 worth of equipment to replace that lost in the fire; and was the occasion of the erection of Units A, B, and C. Other buildings and improvements effected in this period included the Greenhouse (1910), Old Main Terrace (1912), and the Power Plant and the Sewage Plant (1920). The new University Club, built on the site of the old University Inn, was completed in 1914. In 1919 the third floor of Old Main was remodeled and made into greatly needed classrooms. Meantime, more than 1000 acres were added to the College farm by the purchase of adjacent holdings varying in size from 25 to 360 acres.

With the expansion taking place everywhere throughout the College, it was but natural that there should be changes in the curricula and that new courses should be added from time to time. In the fall of 1910 the Pre-Legal and Pre-Medical curricula were instituted—the former in the School of the Liberal Arts, and the latter in the School of Natural Science. In the School of the Liberal Arts the Department of Education and Psychology was established in 1909-10, and the curriculum in Commerce and Finance in 1913-14; in the School of Engineering the Departments of Agricultural and Industrial Engineering were created in 1910-11, and the Department of Milling Engineering in 1911-12. In 1910 the title of the School of Mines and Metallurgy was changed to "School of Mines," and in 1918-19 the Mining Experiment Station was established.

In the period under review General James A. Beaver, who had served as acting president of the College upon the death of President Atherton, continued his influential service as a member of the Board of Trustees, of which he was twice president, until his death in 1914. His successor as President of the Board was Judge H. Walton Mitchell, '90, who served in that capacity until 1929, exerting a strong influence in the affairs of the College and being very active in furthering its interests. Another outstanding member of the Board in this era was J. Franklin Shields, '92, who was elected a member in 1905 and has served continuously down to the present time. His influence was large during the administrations of Presidents Sparks and Thomas and increased steadily as time went by, reaching its climax when he succeeded Judge Mitchell as President of the Board in 1929, a position which he still holds with distinction. James G. White, '82, first elected a member of the Board in 1903, continued his highly useful service in that capacity until his death in 1942. On different occasions he gave large sums of money to the College, which holds him in grateful memory. Other conspicuously useful members of the Board in the Sparks administration were Vance C. McCormick, E. S. Bayard, James L. Hamill, '80, H. V. White, Ellis L. Orvis, '76, George G. Hutchinson, John A. Woodward, James E. Quigley, '94, Chester J. Tyson, J. H. M. Andrews, '98, and Milton W. Lowry, '84. With a governing Board composed of men such as these the College was in safe hands, as the remarkable progress of this period abundantly testifies.

Under President Sparks the faculty almost trebled in number, increasing in twelve years from 125 to 370. Many of the older professors mentioned as lending prestige to the institution in the later Atherton Era continued their useful careers in this period, especially such men as Armsby, Buckhout, '68, Frear, Pond, Pattee, Willard, Runkle, Stecker, J.

P. Jackson, '89, and Espenshade. In 1908 Walter R. Crane succeeded M. E. Wadsworth as Dean of the School of Mines, and in his turn was succeeded by Dean E. S. Moore in 1918; and in 1913 R. L. Watts, '90, followed Thomas F. Hunt as Dean of the School of Agriculture. In 1915 R. L. Sackett succeeded J. P. Jackson as Dean of the School of Engineering, and in the same year T. C. Blaisdell followed S. E. Weber as Dean of the School of the Liberal Arts. In this period the growth of the faculty was such that it became too large a body to deal collectively with the great variety of details requiring attention; hence its administrative work tended to become more and more concentrated in the hands of committees. Dr. Sparks was its presiding officer, and the Registrar served as secretary. There were nine standing committees, composed of members elected by the several Schools of the College. Their duties were to consider and report to the General Faculty respecting such questions as were referred to them, and to make an annual report of the affairs pertaining to their respective subjects. Regular meetings of the faculty were held on the third Thursday evening of each month during the College year.

In this time of rising living costs, especially toward the close of the Sparks administration, the salaries of members of the faculty were distressingly small, but something was gained by having them paid monthly—a custom that had not prevailed in the Atherton Era. Many of the members of the faculty, if not all of them, felt that the College authorities might well have given more attention to providing an adequate salary schedule for the faculty as a whole, and especially to adjusting the inequalities that existed between men of the same rank in the different Schools. As a result of the low salary scale then prevailing, many excellent professors, whom the College could ill afford to lose, were attracted to other institutions having a higher salary schedule. Faculty

members were inclined to believe that the concentration of the College administration upon the increase of the student body and the erection of buildings was at the expense of the teaching staff, overworked and underpaid as they were. This situation, tending to lower the morale of the faculty, was not one of the bright spots of the period under discussion. After all, the usefulness and prestige of an educational institution depend not so much upon the number of its students or the magnificence of its grounds and buildings as upon the scholarship, teaching ability, research, and productivity of its faculty. If this be true, then it would seem to be the first and most imperative consideration of any such institution to assure the maintenance of a faculty of the highest possible attainments.

As everywhere throughout the country, the First World War necessarily disturbed the smooth current of College life. Conditions were much the same in all the larger institutions in the land, particularly as regards the land-grant colleges; but within the general framework of such activities there were certain distinctive features to which attention is called. Even before the United States entered the war, the Executive Committee of the Board of Trustees in March 1917 authorized the formation of a research committee, composed of the directors of the College experiment stations, "to take up questions of making experiments and collecting such data as are likely to be of service both in the field and at home in case of war." It also inaugurated at once a systematic canvass of the upperclassmen to determine in what capacity each was willing to serve in case of emergency; and brought the wireless telegraph corps, the rapid fire gun corps, and the field hospital corps of the regimental cadets into a condition for immediate field service if needed. It granted the use of the College buildings and other facilities for the activities of the Red Cross Nursing Staff to be organized at the College; tendered the

athletic fields, campus, and buildings to the War Department of the United States and to the National Guard of Pennsylvania for training grounds; offered to provide a training camp at the College; and approved the action of the 2300 College cadets who volunteered their services to the President of the United States and to the Governor of Pennsylvania for the defense of the national honor. All this was done before the United States entered the war. In May 1917, leaves of absence were granted to all members of the faculty and other employees of the College entering the armed services; and in the following September application was made to the War Department for the establishment of a unit of the Reserve Officers' Training Corps, which was immediately created with 175 members of the junior class.

In November 1917 Major James Baylies, U. S. A., Retired, was detailed to the College as Commandant. An accelerated program was put into effect for the session of 1917-18, and the Commencement was held April 24. In 1918 the Students' Army Training Corps (S. A. T. C.) was organized into two principal sections—the Collegiate and the Vocational—the members of which were regularly enlisted in the army or navy as part of the armed forces of the United States. Barracks and mess halls were erected on the campus, fraternity houses were converted into barracks, and a Y. M. C. A. "Hut" was constructed adjoining Old Main. Thirty regular army officers were stationed at the College to train the students. The College was virtually taken over by the Government, and the martial note was heard on every hand. House sergeants were in charge of each barracks, setting up exercises were held every morning at 7:00 o'clock, and students marched to and from classes. Military police patrolled the streets to enforce rigid military discipline. Most student activities suffered great inroads in personnel, and were discon-

tinued. College periodicals ceased publication, compulsory chapel was abandoned, social functions were under a ban, and plans for intercollegiate sports were given up entirely. Of the 1600 men in the freshman, sophomore, and junior classes in 1917-18, some 600 failed to return to College in the fall of 1918, and from those who did return there were daily withdrawals. Fewer than half of the original class of 1918 remained to graduate, 382 members having withdrawn. Commencement that year assumed the aspect of a military function.

Side by side with the 1500 students enrolled in the S. A. T. C. were numerous others not dressed in khaki. These consisted of the women and of the men who were denied admission to the S. A. T. C. because of physical defects, and were about one-fourth of the student body in the fall of 1918. In the session of 1918-19 the College opened with 2070 students: of these, 173 were seniors, 268 were juniors, and 484 were sophomores; but the freshman class enrolled 1056, which was an increase of 309 over the preceding year. There were only 925 upperclassmen as compared with 1900 in the fall of 1917. About the middle of December 1918 government control ended, demobilization of the S. A. T. C. began, and the academic routine as it existed before the war was resumed. Under the Rehabilitation Act passed by Congress at the close of the war, rehabilitation students, familiarly known as "rehab," began to arrive on the campus in the spring of 1919. They took work in all the Schools of the College, though much the larger number were enrolled in the School of Agriculture.

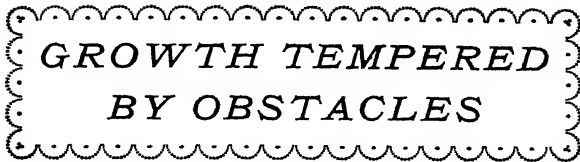
The record of The Pennsylvania State College in the First World War is a highly creditable one, of which the institution is justly proud. The College cooperated in every possible way to aid the government, not only placing its entire resources at the disposal of the national authorities and entering whole-

heartedly into the work prescribed for student training, but furnishing, besides those in the S. A. T. C., 2155 men from the students and alumni for active service in the army and navy. Nearly half of these held commissions in the armed forces, and many of them were cited for gallantry on the field of battle and received decorations from the United States and from foreign governments. Nor should the services of the 49 members of the faculty who enlisted be forgotten.

The severe strain to which Dr. Sparks had been subjected during the trying war period resulted in a nervous breakdown, which rendered him incapable of performing his full duties as President of the College. In this emergency he was granted a year's leave of absence with continuance of salary, in the hope that a period of rest and relaxation would restore him to his accustomed health. During his absence, which lasted about ten months, the routine duties of the President's office were performed by Dean George G. Pond. Since Dr. Sparks had failed to recover his health fully while on leave, he tendered his resignation to the Board of Trustees, who accepted it in January 1920 with the request that he resume his duties as President on February 1 and continue to serve in that capacity throughout the remainder of the current academic year. The Board also expressed the desire that, upon retiring from the presidency, he should continue in the service of the College by lecturing to students on such a subject as might be congenial to him. At its meeting in June 1920, the Board adopted a resolution of appreciation of his valuable services to the College and its deep regret at his retirement from the presidency. He was provided with a house on the campus and was appointed lecturer on American history at a substantial salary for the remainder of his life. After his retirement, Dr. Sparks spent the remaining four years of his life lecturing on American history at the College in occasional semesters, and

in extending the honorary scholastic society of Phi Kappa Phi, of which he was regent-general. He died on June 15, 1924, lamented by the Trustees, the faculty, the students, the alumni, and a wide circle of friends throughout the State and the country.

The administration of President Sparks was highly successful. Everywhere were evidences of progress. There was a remarkable growth in the student body, the faculty, the administrative personnel, the courses of instruction, the business administration, and the physical plant. The College grew steadily also in favor with the public and with the Legislature. Its State-wide services were greatly expanded, and its prestige enhanced. The slogan "Carry the College to the people" had popularized the institution to a degree hitherto unknown, and had paved the way for still greater advance in the future. The place of Dr. Sparks in the history of The Pennsylvania State College and in the history of American higher education is assured. He was easily one of the most efficient, most popular, and most beloved presidents of the College.



*GROWTH TEMPERED
BY OBSTACLES*

1921-1926

FOLLOWING THE RETIREMENT of President Sparks in June 1920, the affairs of the College remained in the hands of the Board of Trustees and of the Executive Committee as usual. Inasmuch, however, as it was necessary to have the routine duties of the President's office performed throughout the interregnum by those immediately in contact with the faculty and with the student body, the active duties of the office were performed by an administrative committee consisting of Dean R. L. Watts, '90, Dean R. L. Sackett, and Mr. R. H. Smith, '05, Comptroller of the College. Judge H. Walton Mitchell, '90, President of the Board of Trustees, was active at this time in keeping in touch with the situation and in attending to certain duties ordinarily performed by the President. This administrative arrangement continued until the new president assumed charge.

Meanwhile, the question of the salaries of faculty members and of other employees of the College had been under consideration. In March 1920 the Executive Committee ordered that a survey of salaries be made for presentation to the Board, which soon thereafter went on record as favoring an increase of salaries for the coming year, and directed the committee to bring this about; and a sum of money, not to exceed \$200,000, was allotted for this purpose. This action was

prompted partly in recognition of the desirability of raising the salary schedule to a higher level, but especially in view of the existing high cost of living and of the feeling of unrest over the situation on the part of the faculty. Even after this action, the salary scale still remained below that of other institutions of similar rank, but from this time forth there was manifest on the part of the Board a disposition to increase the compensation of the teaching staff as much as the means in hand would allow.

Vacancies having occurred in the deanships of the School of the Liberal Arts by the resignation of Dean Blaisdell, and of the School of Natural Science upon the death of Dean Pond, the Board, at its meeting in June 1920, appointed Dr. Charles W. Stoddart as dean of the former school and as acting dean of the latter. Apart from the selection of a president, the only other action of consequence during the interregnum was the establishment of the Department of Farm Machinery in the School of Agriculture. Meanwhile, the committee on the nomination of a president, consisting of Messrs. H. W. Mitchell, '90, J. Franklin Shields, '92, and Vance C. McCormick, after an extended survey of the field, recommended for this position Dr. J. M. Thomas, President of Middlebury College, who was elected at a meeting of the Board held at Harrisburg on January 25, 1921.

Dr. John Martin Thomas, ninth President of the College, had been for twelve years President of Middlebury College, Vermont, where his administration had been marked by many evidences of progress. A graduate of Middlebury College in 1890, and of Union Theological Seminary in 1893, he entered the ministry and for fourteen years was pastor of East Orange Presbyterian Church, New Jersey—a position which he resigned to become President of Middlebury College. Accepting the presidency of The Pennsylvania State College as



JOHN MARTIN THOMAS
President of the College 1921-25

affording an enlarged field of service, he entered upon his duties April 15, 1921.

When the Trustees convened in special session on April 29, 1921, President Thomas made a statement of his views as to the existing situation at the College and his plans for the future. He thought the personnel and business organization of the institution satisfactory, but asserted that the Council of Administration was burdened with details of which it might well be relieved, since he deemed its principal function to be to serve as a cabinet of the president to aid in the formulation of educational policy. Wishing to keep in close touch with the students, he assumed the responsibility for the chapel exercises, both daily and Sunday, including the selection of speakers. He recommended that the inauguration exercises be held in the following October. The concluding section of his statement was highly significant in that he proclaimed as the goal of effort the development of the College into the Pennsylvania State University, directly owned and controlled by the State; this may well be regarded as the keynote of his administration. The proposed State University would include the Schools of Agriculture, Engineering, Mining, Natural Science, and the Liberal Arts, located at the College; but affiliated with them would be professional and technical Schools located elsewhere. To these pronouncements of the new president, who had been on the ground but two weeks, the Board responded by approving the date recommended for the inaugural exercises and by ordering his report to be spread upon the minutes. Had he been better acquainted with the situation in Pennsylvania in general, and with the temper and past policy of the Board in particular, it seems probable that he would have been more reserved in outlining a program thus early and less insistent upon carrying it out in the immediate future.

The views of President Thomas and his hopes for the Col-

lege were set forth at greater length in his inaugural address, delivered October 14, 1921. The inaugural ceremonies, extending over three days, were by far the most elaborate in the history of the College. Representatives were present from 120 colleges and universities and from 44 learned societies. The oath of office was administered to the new president by Robert Von Moschzisker, Chief Justice of the Supreme Court of Pennsylvania. Governor William C. Sproul welcomed President Thomas as the leader of a great State educational institution, and introduced him to the audience. A colorful and inspiring occasion, it was a fitting background for the address of the incoming president. In his inaugural Dr. Thomas summarized the history of the College, enlarged upon its character as a State institution, and then proceeded to the elaboration of his theme, the burden of which was that the State College should become the State University. Declaring that there was no obstacle in its constitution or organization to prevent this, he cited the great western state universities which had emerged from land-grant colleges as illustrations of what The Pennsylvania State College could and should do. He envisaged Penn State as the crown of the public school system of the Commonwealth, aiming at an enrollment of 10,000 students. He asserted that Pennsylvania was well-situated financially to maintain a great State university, and decried the practice of appropriating public funds to private educational institutions. The good will of all sister institutions and the cooperation of all citizens of Pennsylvania was asked "in the expansion of this college into the Pennsylvania State University." Calling to mind the rapid growth of the College in recent years, he said it needed "only the change of one word in its name to take its place with the most noble product of American democracy, the American state universities." He also pronounced in favor of the establishment of a School of Edu-

cation and an enlarged Summer School, and of increased accommodations for women students. Finally, he championed a strong School of the Liberal Arts as the heart of any institution of higher learning, and advocated the development of facilities for research and for extension courses.

Such were the views and plans of President Thomas, to the accomplishment of which he dedicated himself and his administration. Impressed with the importance of his program and full of confidence in both its wisdom and its feasibility, he displayed much vigor and enthusiasm, and no little ability, in endeavoring to carry it out. It was not, however, so simple as it seemed, since there were certain factors in the situation which rendered its accomplishment more difficult than it appeared on the surface. Among these was the complicated political situation in Pennsylvania, by no means easy for a newcomer to understand and far different from that to which Dr. Thomas had been accustomed in Vermont. Furthermore, conditions were different in Pennsylvania from those obtaining in a western State like Wisconsin or Minnesota, whose state universities had emerged from a historical background unlike that of Penn State, and it did not necessarily follow that what could be done with ease in those states could be done without difficulty in Pennsylvania. The suggestion of Dr. Thomas that the State's efforts should be concentrated on only one university and that The Pennsylvania State College should be that university and the sole recipient of the State's appropriations for higher learning was not calculated to smooth the path to success in the movement to convert the College into the particular kind of a State university now proposed. Inasmuch as The Pennsylvania State College has long been a university in all but name, it is only reasonable that it should be so named, as some day it undoubtedly will be; but there seems to be no question that it was a mistake to

present the subject in the particular way in which it was done, especially with the implications involved. The new president had gotten off to a bad start, from which he never fully recovered; and his prestige suffered as a consequence of the failure to accomplish his objective.

Much of the energy of the administration of President Thomas was concentrated upon the Emergency Building Fund Campaign. In April 1921 the Executive Committee of the Board of Trustees had authorized the creation of an Alumni Fund and had prescribed the regulations and conditions under which it should be collected and distributed, but had not contemplated a high-powered campaign for funds at this time. At the ensuing Commencement, Dr. Thomas proposed to the alumni a campaign to raise a large sum of money to erect health and welfare buildings badly needed on the campus. The amount first suggested was \$1,000,000, but such was the enthusiasm of the alumni at the moment that it was decided to attempt to raise at least \$2,000,000. Dr. Thomas urged the matter strongly upon the Trustees, then in session, and the Board responded by endorsing "an effort on the part of alumni and friends of the College to raise a building fund of at least \$2,000,000." The Board also appointed as a committee to cooperate with the alumni Messrs. J. G. White, '82, James L. Hamill, '80, Henry D. Brown, A. N. Diehl, '98, C. J. Tyson, H. W. Mitchell, '90, and President Thomas. With the fund to be raised it was proposed to build a hospital, a students' union, or social hall, a Varsity Hall or training house, physical education buildings for men and for women, dormitories, and other improvements if funds permitted.

A campaign of this character, especially as it was something new in the experience of the College, required careful and detailed preparation; hence it was decided not to launch the movement until the fall of 1922. Meanwhile, an elaborate

campaign organization was effected, with Dr. Thomas as director and Professor A. H. Espenshade as vice-director. Several committees with various functions were appointed, but the burden of the work fell upon the Executive Committee or Board, consisting of President Thomas and Messrs. R. H. Smith, '05, E. K. Hibshman, '09, E. N. Sullivan, '14, J. B. White, '94, J. F. Rodgers, '95, and Miss Lucretia V. T. Simmons. Professor Espenshade was relieved of teaching duties to enable him to devote his whole time to directing the campaign. Expert outside aid was called in, and every branch of the College service became an agency of publicity and solicitation. Several publications were issued to stimulate interest and to inform workers of the progress of the campaign.

In its early stages the campaign gathered considerable momentum and subscriptions mounted rapidly, but as time passed enthusiasm began to wane and it became evident that the goal of \$2,000,000 would not be reached. Campaign activities ceased in June 1924, by which time the total received in cash and pledges amounted to \$1,727,272. About 17,000 alumni and friends of the College contributed, the largest gift by any one person being \$16,000. The expenses of the campaign were large, many of the pledges remained unpaid, and the net amount in cash actually received, including some interest for funds on deposit, was \$1,178,517. Apart from this considerable sum of money, there were certain valuable by-products of the campaign; among these may be mentioned the publicity given to the College, the awakening of a keener interest on the part of the alumni, and the enlistment of various groups of citizens who had come to realize the value of the service rendered by the institution. Of these groups the two most noteworthy were the Potato Growers Association of Pennsylvania, which raised a substantial part of the funds for the Infirmary; and the Grange, to which the College is materi-

ally indebted for its contributions for the Grange Memorial Dormitory for women. These buildings, along with Varsity Hall, were the first fruits of the campaign, being substantial and attractive additions to the growing array of structures on the campus. Funds derived from this campaign were also used to supplement other funds required for the construction of Watts Hall, Frear Hall, the Recreation Building, and several other buildings on the campus.

The campaign had served to bring to the citizens a better knowledge of the conditions existing at the College and to provide a suitable background for an appeal for new instructional buildings and laboratories to be financed by having the State issue bonds in behalf of the institution. It was therefore decided to secure from the Legislatures of 1923 and 1925 a joint measure providing for an amendemnt to the State Constitution to be submitted to the voters at a regular election. This course of action was necessary because no increase in the bonded indebtedness of the Commonwealth can be made except by a constitutional amendment approved by a majority of the voters. The Supreme Court of Pennsylvania, however, ruled that amendments to the State Constitution could not be made oftener than once in every five years, the effect of which was to postpone a vote on the College bond issue to the November election of 1928. Since there could be no immediate aid forthcoming from this source, and it would take several years before the funds subscribed in the Emergency Campaign Fund would be available, the only remaining resource was in legislative appropriations. The student body was growing rapidly, everything was crowded to capacity, and the need for increased appropriations for buildings and maintenance was urgent.

Despite the urgency of the need, however, conditions arose which prevented the College from receiving adequate

legislative aid in funds with which to carry on its work. The result was hard financial sledding throughout the whole of President Thomas' administration. Instead of increasing, the biennial appropriations to the College for 1923 and 1925 were less than that of 1921. When the opportunity was so great and the need was so imperative, it was discouraging to beat time for four years because of the slice in the appropriations made by the Governor. Since the Constitution of Pennsylvania permits the Governor to veto specific appropriation bills or to reduce them, the increased sums voted by the Legislature availed nothing because Governor Pinchot, who had adopted a policy of economy, reduced them unsparingly. As a result of this action the College had four lean years. Here again the comprehensive plans of Dr. Thomas were frustrated by the financial handicap that dogged his footsteps at every turn.

While the program of President Thomas was being rendered impossible of accomplishment in its larger aspects by the events which we have described, certain features of it were being carried out successfully. Among these were various administrative changes of a constructive nature. In June 1921 the Board of Trustees abolished the General Faculty as the legislative body of the College on the ground that it had become too large to perform that function efficiently, and created in its stead the College Senate. As originally constituted, the Senate membership consisted of the President of the College, the Deans of the several Schools, the Dean of Men, the Dean of Women, the Director of the Institute of Animal Nutrition, the Director of the Health Service, the Librarian, the Registrar (Secretary), the Comptroller, the Director of the Summer Session, the heads of departments of resident instruction or of research, and three representatives elected from each School faculty. The Senate, which is presided over by the President of the College, meets monthly and conducts its business

largely through standing and special committees. Subject to the jurisdiction of the Board of Trustees, it is the sole legislative body on all questions that pertain to the educational interests of the College and on all matters concerning more than one faculty. Its membership was later enlarged by adding certain other College officials and by giving each School four elected representatives instead of three.

A further important administrative change was the establishment of the Graduate School by action of the Board taken at its meeting in June 1922. Dr. F. D. Kern, head of the Botany Department, was appointed Dean of the School, whose general administrative functions are exercised by an Executive Committee. In January 1923, the Trustees established in the collegiate staff a rank known as Graduate Assistant, and in 1925 created a rank known as Graduate Scholars to serve as assistants in laboratory instruction or in research. Upon the recommendation of the Graduate School and the approval of the College Senate, the Board in 1924 authorized the granting of the degree of Ph.D., thereby taking a long step forward in the academic progress of the College.

As a result of the passage of the Edmonds Act of 1921, effecting radical changes in the educational system of the Commonwealth, the College organized in the fall of that year the Department of Teacher Training Extension. The slogan of the new department was "If you cannot go to the College, the College will come to you," and it was announced that the campus is limited only by the boundaries of the State. The nonresident instruction offered by this department was of two kinds—extramural courses and correspondence courses. This increase of service, being met by student fees, was administered without cost to the State. Dr. Will Grant Chambers was appointed head of the new department. Another and more important step in advance, closely linked

with the foregoing, was the creation of the School of Education by action of the Board in June 1923. This School was formed by bringing together into a single organization all those departments which were engaged chiefly in the education of teachers, along with the hitherto independent Department of Home Economics. The administration of the Summer Session and of Teacher Training Extension was placed in the new School, of which Dr. Chambers was appointed dean.

Other administrative changes included the reorganization of the Schools of Agriculture and Natural Science. In August 1923 a reorganization was effected in the School of Agriculture whereby the dean was given three principal assistants—a vice-dean and director of instruction, a vice-dean and director of extension, and a vice-dean and director of research. Upon the death of Dean Pond in May 1920, Dr. Charles W. Stoddart, newly appointed dean of the School of the Liberal Arts, was given the additional duty of serving as acting dean of the School of Natural Science. In June 1924 the School of Natural Science was reorganized and renamed the School of Chemistry and Physics, of which Dr. Gerald L. Wendt was appointed dean.

While the foregoing reorganization was in progress, various departmental changes were taking place. The Department of History, Political Science, and Economics was divided into the Department of History and Political Science, with Dr. A. E. Martin as head; and the Department of Economics and Sociology, with Dr. O. F. Boucke as head. In 1923 the course in Professional Forestry was discontinued, and the Agricultural Extension Service was instructed to increase the work in Farm Forestry and Landscape Architecture. In this year, also, the Department of Education and Psychology was transferred from the School of the Liberal Arts to the School of Education, and was replaced in the former by the creation of

the Department of Philosophy. In line with these changes, Dr. Erwin W. Runkle, who had served for twenty years as part-time librarian, resigned from that position to devote his whole time to the work of the Department of Philosophy, of which he was appointed the head; and Miss Sabra W. Vought was appointed as the first full-time librarian, entering upon her duties in September 1924. In 1925 there was established in the School of Chemistry and Physics a Division of Industrial Research, authorized to undertake services for individuals or for industrial corporations.

One of the constructive measures of this period was the adoption by the Board of Trustees in June 1921 of a permanent campus plan. The College architects, Messrs. Day and Klauder of Philadelphia, were authorized to prepare a long-range development plan for a college of 10,000 resident students, based on the Lowrie Plan of 1907 but revised to include new buildings then in prospect. This plan included the selection of the sites for all buildings whose erection was then contemplated. In April 1922 the Executive Committee of the Board placed the responsibility for planning and for actual construction of future buildings and ground development in the hands of the standing Committee on Architecture and of a Building Committee; and approved in principle the development plan of the College architects. Serious attention was also given by the Board to devising a plan of landscape development of the property of the College, and in June 1924 Mr. Warren H. Manning of Boston was engaged as consulting landscape architect. A. W. Cowell, professor of landscape architecture at the College, was designated to execute the details of the development plan under the supervision of the consulting architect and of the advisory committee on landscaping. The responsibility for the actual carrying out of these plans was placed in the Department of Grounds and

Buildings. As a result of this careful planning, The Pennsylvania State College was destined to have a campus whose beauty and attractiveness is unexcelled by any in the country. The only new buildings erected under the permanent development plan in the administration of President Thomas were Frederick Watts Hall, Varsity Hall, and a beef cattle barn, but when funds were forthcoming for additional buildings the College authorities would know just where to place them.

By reason of several opinions rendered by the Attorney General of the Commonwealth in 1921 and 1922, the status of the College as a state institution was more clearly defined than at any previous time in its history. These opinions, given on the gasoline tax, the inheritance tax, and the insurance question, fixed the status of the College authoritatively as a State institution. That it had always been so in fact was everywhere recognized, but it was now recognized in law also. The Attorney General also ruled that all designs for new structures at the College must be submitted for approval to the State Art Commission, as in the case of all State institutions.

In the administration of President Thomas, extending over a period of four years, the resident student body, exclusive of the Summer Session, increased from 3232 to 3854; and of the Summer Session, from 1340 to 1933. If both the regular and summer sessions be included, the total increase was from 4572 to 5747. With the exception of the School of Agriculture, which suffered a slight decline, all the Schools increased their enrollment in this period; this was especially true of the School of the Liberal Arts, whose enrollment increased from 441 to 880, making it second in numbers only to the School of Engineering at this time. In June 1924 the College Senate adopted the Honor Point System, which went into effect in September of that year. According to this system, which has remained in operation to the present time, grades are re-

corded in honor points rather than in percentages. The effect of this system is to emphasize quality of accomplishment.

In the period under review the faculty increased from a total of 575 engaged in instruction, research, and extension to 745. Of this number, the resident faculty engaged in instruction and research increased from 339 to 391; while those engaged in extension work increased from 251 to 369. In June 1923 the Board adopted for the first time a settled policy regarding leaves of absence and sabbatical leaves. Leaves of absence for graduate work, or for other work that would render a member of the staff more valuable to the institution, would be granted for one year and under exceptional circumstances for two years, with approximately one-third of salary paid while on leave. Sabbatical leave for purposes of study, travel, or research, would be granted to those members of the faculty of full professorial rank who had served the College meritoriously for six years; these would receive full pay for one-half year or half-pay for a full year while away on leave. President Thomas and the Board recognized the fact that for years salaries had been below a proper standard and were still inadequate, while the teaching load was heavy, yet they could accomplish but little in improving the situation in view of the heavy cuts in appropriations made by the Governor.

Despite the obstacles encountered by President Thomas, the College made considerable progress during his administration, and, as we have seen, some constructive measures of permanent value were adopted. Nevertheless, as time passed he realized his inability to carry out his program; and the outlook did not seem promising for a strong forward movement under his leadership. On June 13, 1925, he tendered his resignation to the Board of Trustees to take effect September 1, and announced his acceptance of the presidency of Rutgers University. His resignation was accepted by the Board, with

acknowledgements of the services he had rendered during the trying years of his administration. Although less successful than some of the other executives of the College, his administration was creditable and he left the institution stronger than he found it.

Upon the resignation of Dr. Thomas, the Board appointed a committee, consisting of Messrs. Mitchell, '90, Hamill, '80, Shields, '92, Wise, and McCormick, to nominate his successor. Pending the election of a new president, a Committee on Administration was appointed to administer the affairs of the College, subject to the Trustees and the Executive Committee. The Administration Committee consisted of the three senior deans, Messrs. Watts, Sackett, and Stoddart, and Messrs. H. W. Mitchell and R. H. Smith. Judge Mitchell, President of the Board, was later authorized to sign the diplomas and to confer the degrees at the Commencement of 1926, and also at the close of the Summer Session; and further to act at such times as individual executive action needed to be substituted for action by the Administration Committee.

During the ensuing interregnum, a new departure was made in the institution of Freshman Week in September 1925. Requested to come to the College on Wednesday preceding the week of registration, the freshmen were given a series of lectures, of sectional and School conferences, and of demonstrations of one sort and another with the purpose of acquainting them with their new college environment. The results of this plan proving satisfactory, it was continued as a permanent feature of College life. Another feature, introduced in May 1926, was the conversion of the five local girl student clubs into national sororities. It is noteworthy, also, that in January 1926, for the first time in the history of the institution, a woman trustee was appointed, the Governor naming Mrs. Clara Calhoun Phillips to membership on the Board.



*THE COLLEGE
AT FLOOD TIDE*

1926-

IN OUR STORY of The Pennsylvania State College we have now reached the point where the institution, in the ebb and flow of its fortunes, entered upon the flood tide of its progress. For forty years or more it had been expanding consistently, but the conditions were now ripe for a development far beyond anything hitherto attained. The forces which had long been at work had brought the College to the position of vantage from which an advance seemed assured, provided full use was made of the opportunities that existed. The policies of the institution were well-established, and its hold upon the people of the Commonwealth had grown steadily stronger. Its scholastic standards were high, and its prestige was increasing. Its faculty was constantly extending the reputation of the College for scholarship, for research, and for productive activity, while its large and rapidly growing body of alumni could be counted upon to cherish its fame and to rally to its support at all times. The ripened wisdom of its Board of Trustees had throughout the years directed its course along lines at once sane and progressive. The country was experiencing a wave of economic prosperity, and everywhere throughout the land students were flocking to the colleges and universities as never before in the history of American education. The Honorable John S. Fisher, Trustee and



RALPH DORN HETZEL
President of the College, 1926-

friend of the College, was just entering upon his administration as Governor of the Commonwealth and could be relied upon to give it fair treatment in the matter of appropriations, especially as there was a surplus in the State Treasury. The student enrollment was larger than it had ever been, and there was every prospect that it would increase rapidly. Unquestionably, the times were propitious for a strong forward movement. Hence the keynote of the period under discussion was expansion—expansion in the number of students and faculty, in curricula, research, and extension services, in physical plant and equipment, and in the financial resources necessary to carry on the work of a great and growing institution. Development along all these lines seemed probable provided only that a president should be chosen who possessed the qualities to fulfill the promise inherent in the situation. Such a man was found in Dr. Hetzel, tenth President of the College.

Unanimously elected President of The Pennsylvania State College at a special meeting of the Board of Trustees held on September 24, 1926, Dr. Ralph Dorn Hetzel entered upon his duties December 15, 1926. As head of the University of New Hampshire for nine years, he had done a notable work, which attracted favorable attention in the educational world and led to his call to a larger sphere of usefulness at The Pennsylvania State College. Before going to New Hampshire, he had been for twelve years at the Oregon State College, where he became head of the Department of Political Science, and later was appointed Director of the College Extension Service. Educated at the University of Wisconsin, he received the degrees of B.A. and LL.B. from that institution. His ability as an educator has been recognized by having the degree of LL.D. conferred upon him by Dartmouth College, the University of Maine, Bucknell University, the University of New Hampshire, the University of Pennsylvania, and the Univer-

sity of Pittsburgh; Lafayette College conferred upon him the degree of Litt.D. He is now in his twentieth year as President of The Pennsylvania State College, where he has already served longer than any of his predecessors except Dr. Ather-ton. As a wise and tactful leader, strongly entrenched in the esteem of the Trustees, the faculty, the students, the alumni, and the general public, he has measured up magnificently to the duties and responsibilities of his office, as the record of the achievements of his administration will show. Under his leadership the College has reached the high-water mark in its history, and its future is full of hope and promise.

A longer perspective through which to view the rapid progress of the institution under President Hetzel would perhaps enable the historian to interpret more clearly the course of events and to evaluate with greater assurance the factors involved, especially as the story of this administration is still in the making. Nevertheless, the record of what has transpired is available and its features are so clearly outlined as to be unmistakable, through whatever perspective these may be regarded.

President Hetzel, an experienced administrator whose entire educational career has been connected with land-grant institutions, did not at once seek to carry out radical reforms in the program and procedures of the College; but studied closely the history of the institution and its existing situation before announcing a program. Already well-acquainted with the origin, aims, and functions of the land-grant colleges, he understood their genius and their objectives. Each of these institutions, however, has its own peculiar environment and problems. Hence Dr. Hetzel was at pains to acquaint himself with the local situation at The Pennsylvania State College and also with the general political, economic, and social conditions in the Commonwealth as these might affect the

fortunes of the College. There was no ostentatious assumption of command, no sounding of trumpets, no elaborate inaugural ceremonies. His inauguration took place quietly as a part of the Commencement program in June 1927, when the oath of office was administered by Governor John S. Fisher. His inaugural address dealt with broad, fundamental principles of educational policy rather than with a specific program to be carried out. After reviewing the origin and development of the industrial-college idea and its applications in later times, he emphasized the fact that here was a new point of view in education of far-reaching significance. He pointed out that this involved a re-appraisal of the content of the curricula of higher education, the development of scientific studies, an increased emphasis on research, and a wider dissemination of information among the people through extension services.

The views and policies of President Hetzel, as set forth from time to time in his public addresses and in his reports to the Board of Trustees, may be described briefly. He was persuaded that The Pennsylvania State College, though inadequately provided for by the Commonwealth hitherto, offered the greatest opportunity for constructive educational work that could be found in the country. He regarded the neglect to which the College had been subjected as but a challenge to his best efforts to overcome it—a challenge which he accepted. He saw the need that the public character of the College should be more generally recognized and more firmly established, and labored diligently to bring this to pass. He proclaimed the doctrine that since the College was a public institution, it was under obligation to be responsive to the needs of the people of Pennsylvania and to adjust its program and policy to this end; its primary mission had always been, and would continue to be, to serve the citizens of the Commonwealth. He further maintained that it was equally the obliga-

tion of the State "to provide wisely and adequately for the support and development of this College." Realizing that for many years the College had been seriously underfinanced and that, as a result, it had suffered in its physical plant, its personnel, and its work, he sought to secure more adequate legislative aid for maintenance and for buildings. Refusing to entertain for a moment the idea that the College should stand still or go backward, he held that it must enlarge and strengthen its services in every direction, having faith to believe that as the recognition of these services increased the means to extend them would be forthcoming. He envisioned an institution of between twelve and fifteen thousand resident students, a correspondingly large faculty, a thoroughgoing research organization, and a great extension service. "If Penn State is a public institution and maintained in order to serve the vital needs of this great Commonwealth," he said, "it must take on the proportions necessary to the task"; and both the scope and quality of the service must be commensurate with the task. He held firmly to the belief, and often proclaimed it, that the College would be forced more and more to increase its facilities and to expand its work, not only as regards resident instruction but also through the development of research and the expansion of its extension services. Furthermore, as the capstone of the public school system of the Commonwealth, it should maintain at all times a close and sympathetic contact with the secondary schools of the State.

In the period under review there has been a consistent advance of The Pennsylvania State College in its fundamental service to the Commonwealth in the departments of resident instruction, extension, and research; and in all of these the scope has been considerably broadened and the quality improved. In the sphere of resident instruction changes have

taken place looking to the enlargement of its scope and its more efficient organization. Certain courses which were listed in the catalogue had ceased to be offered, and there was a demand for others not hitherto given. Hence, at the request of President Hetzel, a committee was appointed to undertake a searching survey of the undergraduate and graduate resident instruction of the institution in all its bearings. The result of this study, which extended over more than two years, was to reveal that there was an excessive number of highly specialized curricula and courses, and to cause the elimination of nine curricula and about seventy courses: other courses were substituted for many of those which were dropped. The teaching load of the faculty was carefully studied with a view to its distribution more equitably in the interest of greater efficiency. It was further recognized that there should be a consistent policy in the selection of new men on the teaching staff, and a more uniform practice in advancement in rank and salary upon the basis of the qualifications of the instructor. Although the major objective of the Survey Committee was to appraise the program of the College and to make such recommendations for its improvement as appeared wise, a significant by-product of the study was to lead each of the Schools to study its own program and to revise its curricula. This was particularly true of the Schools of Agriculture, Mineral Industries, Liberal Arts, and Education. Finally, as a result of this study, resident instruction at the College was put on a more efficient basis than ever before and was better prepared to serve the needs of the Commonwealth. In accomplishing this reform the principle was adhered to that the changes to be made would be predicated "not upon institutional ambition but upon educational need." In this way the College seeks to keep step with the changing conditions of the times, not hesitating to let go those things that are obsolete and reaching out con-

stantly to perform its vital ministry to the public which it is obligated to serve.

In President Hetzel's administration there has been a notable advance in the extension services of the College. This subject will be discussed more fully in the chapter on extension, but is here touched upon briefly for the sake of completeness. Like resident instruction, the extramural educational work of the institution has been greatly expanded and improved in recent years, now embracing a wide variety of subjects and extending to practically every section of the Commonwealth. There has been an increased demand for all types of extension instruction. Many executives of large business concerns have become convinced of the value of this service, and have requested it for their organizations. Extension instruction has been greatly strengthened and enlarged by virtue of additional federal and State appropriations, especially for agriculture and home economics. Extension enrollment has increased rapidly, with a corresponding increase in the number of instructors engaged in extension teaching. So great is the scope and importance of this work as to demand recognition as one of the major functions of the College.

Development of research at The Pennsylvania State College in this period has been no less noteworthy than that of resident instruction and of the extension services. To a greater degree than heretofore, the College administration has insisted that it is a primary function of the institution to carry out a research program in every School of the College and in every department of instruction. For many years a large part of the research undertaken by members of the faculty was personal rather than institutional; and only within the past fifteen or twenty years has it been recognized fully that research is as properly a function of the institution as is instruction, and that it should be organized and supported with equal care.

Coordination of the research programs of the several Schools has been brought about through the Council on Research, on which each major division of the College is represented. The research program has been constantly expanded and its objectives more definitely defined, while its methods have been materially improved. Research is the primary consideration of the Graduate School, whose students are encouraged to participate in the research programs of their major departments. Formerly, research at The Pennsylvania State College centered chiefly upon the problems of the production and marketing of farm products, but increasing attention is now being paid to problems arising from social and economic adjustments. Business and industry are becoming insistent that the research facilities of the College shall be enlarged and made available to them in the solution of their problems. Departments of the State Government and municipalities of the Commonwealth tend more and more to look to the College for aid and counsel. The Federal Government also encourages an enlarged scope of cooperation with its departments and agencies in which research projects have been instituted.

At its meeting on January 17, 1933, the Board of Trustees created the Pennsylvania Research Corporation, to which a charter was granted on February 26, 1934. The purpose of the Corporation is to promote research at the College and "to assist in providing the means and machinery by which scientific discoveries and inventions may be developed and patented and the commercial uses thereof determined; and by which such utilization may be made of such discoveries and inventions and patent rights as may tend to stimulate and promote and provide funds for further scientific investigation and research within the College." All development work at The Pennsylvania State College that it seems advisable to patent is submitted through the College Council on Research,

which acts in an advisory capacity to the Board of Directors of the Corporation.

In keeping with the expansion of the instructional program of the College in this period was the growth of the student body, whose resident enrollment increased from 3935 in the regular session of 1926-27 to 7236 in the session of 1941-42. In the same period the summer session enrollment increased from 2531 to 3484; and that of the women students from 583 to 1829. Including both the regular and summer sessions, the total number of resident students in 1941-42 was 10,720. If to these be added 577 students in the short courses, 3157 in the correspondence courses, and 12,026 in the extension classes, the grand total for 1941-42 was 26,480. Resident students in the Graduate School increased from 169 to 621, and the number of graduate and baccalaureate degrees awarded from 736 to 1623 annually, in the same period. These figures not only show the growth of the student body but also serve as an index of expansion along all lines, since there is necessarily a correlation between the number of students attending an institution and the number of the faculty, the extent of the curricula and courses, and the size of the physical plant required to provide facilities to meet the existing needs.

The increase in the number of students would have been still larger but for the fact that for many years the College had been placed under the necessity of refusing admission to large numbers of applicants because of the lack of facilities for all who wished to come. The restriction of the enrollment has, however, the advantage of selecting a better trained freshman class each year, since the preference is given to those with the highest scholarship rating. Partly for this reason and partly because of the settled policy of the institution, the scholarship standards have remained consistently high at The Pennsylvania State College. The entering class at this

institution appears to be more highly selected on the scholarship basis than is the case at any other state college or university in the country. It has been necessary to limit also those desiring to transfer to this College from other institutions, and it is the practice of the College Examiner to admit into this group only those of approved scholarship. In 1940-41 some 467 undergraduate students were admitted by transfer; these entered every School of the College and chose 42 different curricula. They came from 62 Pennsylvania colleges, from 110 colleges in the United States outside of Pennsylvania, and from 9 foreign colleges, being drawn from 32 states of the Union and from 7 foreign countries.

While the student enrollment was growing at a rapid rate, the resident faculty, including those with the rank of instructor and above, increased in about the same proportion—from 375 in 1926-27 to 642 in 1941-42. If to these be added the 704 full-time and part-time members of the staff engaged in the extension services, together with the research assistants, graduate assistants, research fellows, graduate scholars, and graduate stipend scholars, the total number on the staff employed in administration, resident instruction and research, and extension in 1941-42 was 1684. The quality of the faculty, like that of the student body, has improved steadily as the years passed, thoroughness of scholastic training being more rigidly prescribed than had been customary hitherto. As a result of this policy, the percentage of the faculty engaged in research and productivity has increased, thereby enhancing the prestige of the institution. The College administration recognized that the major internal problem of the institution was the recruiting and development of its teaching and research staffs, and that this in turn was dependent upon an adequate salary schedule. Without such a schedule the College could not hope to retain on the campus such of its own outstanding

faculty members as might be tempted to stray to other pastures where the soil was richer and the grass was more luxuriant; nor could it secure from other institutions men of approved qualifications and established reputation. Hence President Hetzel urged upon the Trustees the necessity of revising the salary scale upward. Considerable progress was being made in this direction until about 1933, when a retrenchment in legislative appropriations resulting from the financial depression led to a reduction in salaries.

It became necessary to effect all economies possible, and, since salaries and wages constituted such a large proportion of total expenditures, it naturally followed that all the employees of the College suffered a reduction of income. In May 1933 the Executive Committee of the Board of Trustees ordered that all full-time academic and administrative salaries should be reduced ten per cent, after an exemption of \$1000. This retrenchment continued for several years, the Trustees meanwhile devoting serious consideration to the subject of personnel and salary provisions. Studies were made of the existing salary scale and its level as compared with that of other leading land-grant institutions, and new adjustments were incorporated in the budget of 1936-37. The adjustments were made with reference to the nature and quality of the services rendered, and on the basis of the salary scales now obtaining in institutions of comparable size, type, and standing. Since that time the general trend of salaries has been upward, and many of the inequalities formerly existing have been ironed out. At The Pennsylvania State College a member of the faculty may expect promotion in rank, with corresponding increases in salary, to the extent, within the limits of the budget, to which his services to the institution entitle him.

Meanwhile, the condition of the faculty was being improved steadily in other ways through the adoption of meas-

ures of a helpful nature, such as faculty group insurance, retirement fund, and hospitalization insurance. In April 1932, the Group Insurance and Permanent Disability Plan, which had been adopted in principle by the Trustees in June 1931, was worked out as to details by the Executive Committee in conjunction with the officers of the College, and went into effect immediately. It provided insurance at very low rates and for amounts varying from \$500 to \$10,000, depending upon the amount of wages or salaries received, for all the employees of the College, the insurance premiums being deducted from the monthly salary checks. It was later provided that those employees who retired upon reaching the age of 65 or over, would be given the privilege of continuing this insurance after retirement at the same rates. An important provision for many of the insured is that they are eligible without passing a physical examination. Since the effect of this plan was to enable them to carry insurance at much less cost than heretofore, and thereby constituted what amounted to an increase in salary, the faculty received it with enthusiasm.

Of even greater consequence to the faculty was the provision enabling them (and other employees of the College) to qualify for membership in the State Employees' Retirement Association, by legislative act adopted in 1935. In 1924 the Legislature had passed a State Employees' Retirement Act which did not include the employees of The Pennsylvania State College. An amendment to the existing law was secured in 1935, however, bringing the College employees under the provisions of the act. The effect of this legislation was highly beneficial inasmuch as the salary scale at Penn State, as in the overwhelming majority of the educational institutions in the country, was such as to preclude the accumulation of savings adequate to provide for old age. The haunting concern that afflicts persons growing old in the service was thus eliminated,

assuring members of the faculty a certain competency upon retirement. No measure fostered by President Hetzel and the Trustees has brought such a feeling of satisfaction and security to the faculty as this. While this matter was being agitated, the Trustees adopted a retirement plan for College employees. Hitherto there had been no fixed age for retirement, several members of the faculty being well along in their seventies; but now that a pension was available for those who had grown old, a definite retirement plan was adopted for the future. This provided that 65 should be the retirement age for all employees of the College, except that by mutual agreement between the Trustees and any member of the staff, such member might be engaged from year to year until reaching the age 70, when retirement is compulsory. In December 1938 the Executive Committee approved a plan of hospitalization insurance which had been approved by the local chapter of the American Association of University Professors, and authorized the officers of the College to make salary deductions and benefit disbursements for those who elected to come under the plan.

As a result of the action of the College administration in adjusting the salary schedule upon a higher level, in providing faculty group insurance, in making available to the staff the State Employees' Retirement Fund, and in adopting the plan of hospitalization insurance, the faculty morale was greatly strengthened. Members of the faculty at Penn State feel that the College authorities are vitally concerned in their welfare and are committed to the policy of advancing their material interests as fast and as far as the finances of the institution will permit. Furthermore, the lot of the faculty is cast in pleasant places. The picturesque natural surroundings of the College and the delightful town in which it is located provide additional compensations not to be despised. In short, the



WATTS AND IRVIN HALLS IN THE MEN'S QUADRANGLE

members of the faculty are doing rather well, and it is not so easy now as it was in other days to tempt them away from this pleasant place, of whose advantages they are by no means unaware.

The rapid growth of the student body necessarily required not only an enlarged faculty to teach them, but additional buildings and equipment for housing them and for instructional purposes; and this in turn required increased funds for maintenance and buildings. Notwithstanding the slump of the depression of the 1930's, the financial history of the College in the period under review was one of expanding appropriations by both the State and the Federal Governments. As has been noted, President Hetzel had the good fortune to begin his administration just at the time when John S. Fisher, who had been for several years a Trustee of the College, was about to be inaugurated Governor of the Commonwealth. Well-acquainted with The Pennsylvania State College and aware of the value of its services to the State, the Governor proved to be one of the best friends the institution ever had, and his memory is gratefully cherished. Coming into office at a time of abounding prosperity, he embarked upon a great building program for all the State institutions, and in this the College shared. In addition to the sums appropriated by the Fisher administration for new buildings on the campus, the wise statesmanship of the Governor manifested itself in increased provisions for the support of the College program. Early in his second term, Governor Pinchot gave substantial evidence of confidence in the new College administration by approving appropriations for the erection of the Home Economics Building and the Dairy Building. Likewise Governor George H. Earle, who succeeded Pinchot, displayed an understanding both of the needs of the Commonwealth for public education of collegiate grade and of the institution by allotting

\$5,500,000 of the Public Works Administration-General State Authority funds for the expansion of the physical plant. Governor Arthur H. James also manifested a friendly attitude toward the College by signing bills providing for increased appropriations for carrying on its work. Never before in its history had the institution received such sums for both buildings and maintenance, and never had it expanded so rapidly.

In connection with the financial history of the institution in this administration, attention is called to the Eight Million Dollar Bond Issue Campaign, which President Hetzel found on the doorstep of the College upon his arrival. It will be recalled that in the administration of President Thomas measures were taken to raise \$8,000,000 for buildings for The Pennsylvania State College by amending the State Constitution for this purpose. Four additional amendments for bond issues were proposed and were to be voted upon in the general election of 1928. Acting energetically in the interest of the proposed bond issue, the College authorities effected a thorough organization to direct the campaign under the general supervision of President Hetzel, with E. K. Hibshman, '09, as the active director. The main reliance was placed upon the county organizations composed of alumni and prominent citizens. The campaign was conducted on a high plane and was very skillfully managed; but The Pennsylvania State College Bond Issue amendment was lost with the others, though it received the largest vote of any of the proposed amendments. Out of a total of more than a million votes cast in the election, it was defeated by only about 26,000 votes. Its defeat was generally attributed to the statements of the State's fiscal officers, who declared that the finances of the Commonwealth were in such excellent shape that the needs of the College could be met from current revenues. However, the campaign was not without its value since it had served to inform the

public about the needs of the College and to place the institution in a position of vantage at the next session of the Legislature. The strong support which the amendment had received in the election was generally regarded by both the press and the public as being in the nature of a mandate to the Commonwealth to make adequate appropriations to the College in the future. Governor Fisher so expressed himself in a letter to President Hetzel.

One of the most striking features of the expansion characterizing the administration of President Hetzel was the transformation of the physical plant of the College, about sixty per cent of the buildings on the campus having been erected or added to in this period. A long period of underfinance had resulted in the extreme depletion of the physical plant, which was not only inadequate in size but was in part exhausted and unfit for occupancy. These conditions had long been recognized, but the funds had not been forthcoming with which to remedy the situation. To date, in President Hetzel's administration, there have been two great building programs—the first lasting from 1928 to 1932, and the second from 1937 to 1939, inclusive. In the interim between these programs, the College developed its water supply, erected the first unit of steel stands on New Beaver Field, constructed the Water Tower and distribution lines, and built the Regional Research Laboratory with funds received from the Federal Government. After the second building program was completed, more than \$158,000 was expended in alterations to Carnegie Hall and the Agricultural Experiment Station Building. Carnegie Hall, formerly known as the Carnegie Library Building, was remodeled and enlarged to house the Departments of Military Science and Tactics, Music, and Journalism. Thus it appears that there has been, except for the depression years of 1933-36, an almost continuous expansion of

the physical plant throughout practically the whole of President Hetzel's administration. Within this period also, the College came into possession of the plant at Mont Alto and, by a 99-year lease, of the property at Stone Valley. The erection of this great array of buildings, with their equipment, furnishings, and service lines, along with campus improvements, involved an outlay of more than \$16,000,000, or an average of a sum exceeding \$1,000,000 annually from 1928 to 1942, inclusive.

The first building program, beginning in 1928 and extending over a period of about four years, required the expenditure of approximately \$5,500,000. The funds to defray this cost came from the appropriations made in the Fisher administration and in the second Pinchot administration; from receipts from the Emergency Building Fund Campaign projected in the administration of President Thomas; and from a loan of \$350,000 to build the Nittany Lion Inn. With these funds the College erected fifteen major buildings, which, in the order of their construction, were as follows: Service Building, Recreation Building, Infirmary, Main Engineering, Grange Dormitory, addition to Pond Laboratories, the new Old Main, Mineral Industries, Power Plant, Botany, Frear (Jordan) Dormitory, North Liberal Arts, Nittany Lion Inn, Dairy and Creamery, and Home Economics. Other minor buildings and improvements constructed at this time were the sheep barn, poultry brooder house, fruit and storage house, livestock infirmary, and dairy and milk room. When the building program was completed in 1932, there were no more funds forthcoming from the Legislature for building purposes for about five years. Thus the mandate of the bond issue campaign was never fully carried out.

Meanwhile, the housing situation for women students was becoming more acute each year. In his report to the Board of

Trustees in June 1935, President Hetzel called attention to this problem and made a plea for additional accommodations for women. The number of resident women students at the time was 1071, whereas the campus housing facilities provided for only about 400 in the three dormitories, six cottages, and two home management houses. The remainder occupied organized and supervised houses in the town, or were scattered around in groups of two or three without adequate College supervision. The problem of housing women students involved not only the provision of facilities for those actually admitted, but also the denial of admission to a large number of qualified women applicants. These considerations led to the erection of Frances Atherton Hall—a large, commodious, and well-equipped dormitory capable of accommodating 500 students; and of the Mary Beaver White Recreation Hall for women, immediately adjoining. For the first time in many years it was now possible to house all the freshman women on the campus. In order to effect these improvements, which were completed in 1938, the College negotiated a loan of \$1,400,000. This sum was required not alone for the erection of the buildings, but also for their furnishing, along with extensive grading, walks, roadways, landscaping; and for water, electric, steam, and sewer service lines. It was a major operation, but was well worth the cost.

Before the erection of Frances Atherton Hall, events had already been shaping up for the second main building program of President Hetzel's administration, which was to involve the expenditure of \$5,000,000 for buildings and equipment within a period of about two years. By virtue of legislation passed by the General Assembly in 1937, The General State Authority authorized the expenditure of this sum under certain conditions and agreements which the College accepted. The five million dollars thus allocated became available when,

on May 18, 1938, The General State Authority Act was signed including The Pennsylvania State College for Public Works Administration funds for buildings. On December 1, 1939, the Board of Trustees authorized transference to The General State Authority of the Commonwealth of Pennsylvania of certain parcels of land belonging to the College on which buildings were erected with the funds thus made available. Meanwhile, the Board of Trustees, in anticipation of receiving a sum from the government and in order to be prepared for any emergency, had, in April 1937, approved a list of building projects to be undertaken if the money were forthcoming. The whole matter was complicated by legal technicalities and by the necessity of having in hand complete plans and specifications for all buildings whose erection was contemplated. This situation involved an enormous amount of preliminary work and the expenditure of a considerable amount of money in preparing the plans in order to be ready to meet the requirements under which the money would become available, if and when it became available at all. However, by working overtime, everything was in readiness for all possible contingencies. The College program thus prepared called for a total investment of approximately sixteen million dollars. Governor George H. Earle recognized the validity of the program and promised to give it his full support in the development of The General State Authority program. In the interim, other State institutions and agencies presented programs which in total amount exceeded the limit which it seemed advisable to invest at that time. The Authority, therefore, reduced the amount allocated to the College to approximately five million dollars.

The projects actually completed under this second great building program were as follows: additions to the Service and Storage Plant, new wing on the Mineral Industries Building,

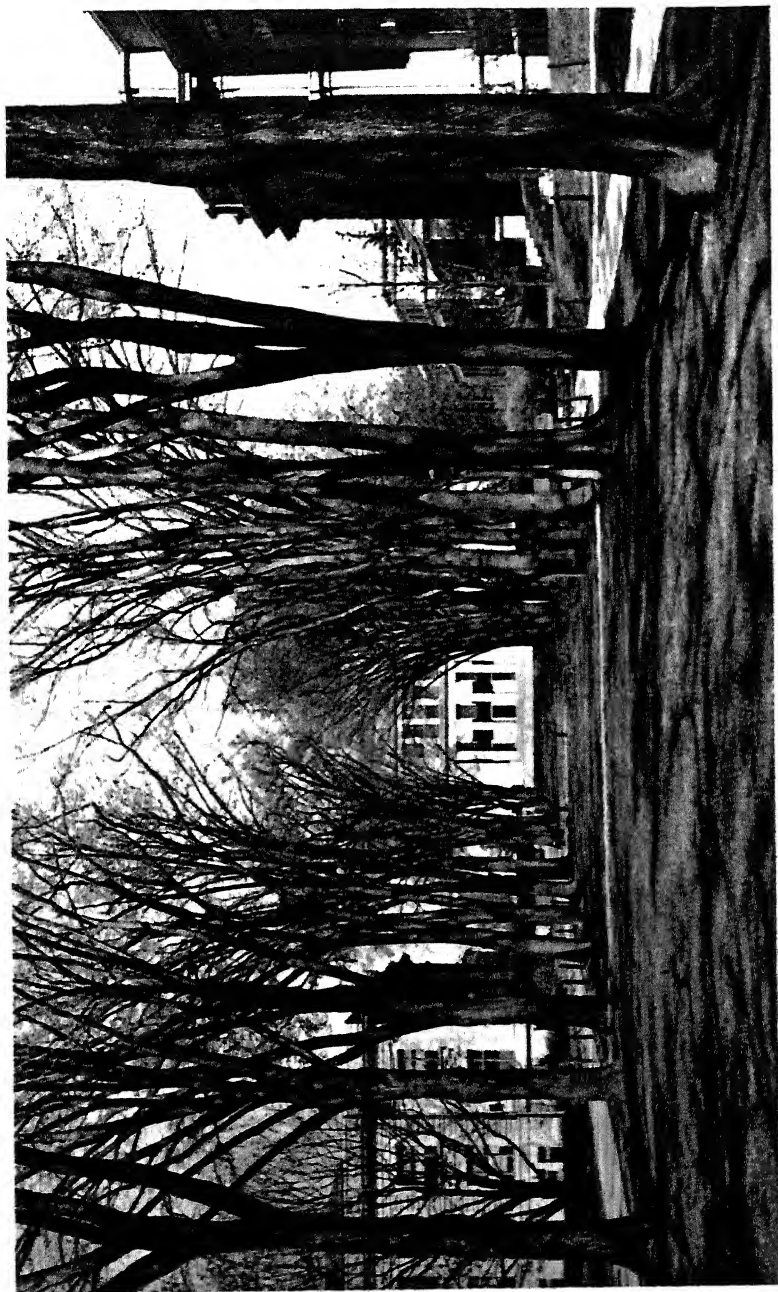
central section of the Liberal Arts Building, new Library Building, and the Electrical Engineering, Education, Chemistry and Physics, Agricultural Science, Forestry, Agricultural Engineering, and Poultry Buildings. On December 29, 1937, the old Chemistry Annex ("Bull Pen") and its contents were completely destroyed by fire, involving a loss of \$196,762 and rendering necessary an addition to the New Physics Building. Plans and specifications were promptly prepared for two additional wings to this building and were submitted to The General State Authority in time to be included in the above group of buildings. Other projects embraced in the G. S. A.-P. W. A. program included steam and water tunnels and lines, new wells and pumping machinery, and a new turbo-generator and electro-power circuits for the operation of the new water system. Needless to say that, while these improvements were under way, the campus was torn up in every direction and numerous temporary inconveniences resulted, especially throughout the whole of 1938.

The new buildings constructed under this program were completed in August 1939, within two years of the time when the work began. They could not be used, however, until fixed equipment was installed and movable equipment and apparatus were supplied, resulting in considerable delay before they were finally ready for occupancy. As a result of the erection of the new buildings and of their equipment with the best apparatus to be had in the country, the facilities of the institution, especially for laboratory work in the technical Schools, were greatly improved. Another feature not to be despised was the enhanced attractiveness of the campus caused by the addition of numerous structures of approved architectural design and located according to a carefully considered plan.

While the two building programs were being carried out in the period under review, care was taken that the type of

architecture and the location and landscaping of the buildings should present a harmonious whole in accordance with plans designed by eminent architects and landscape artists. It will be recalled that in 1907 the Lowrie Plan had been adopted, replacing the haphazard system of campus development that had previously obtained. Later the Trustees, anticipating the time when many new buildings would be erected, engaged the services of the firm of Day and Klauder of Philadelphia, specialists in college architecture, to draw up a comprehensive campus development plan, the essentials of which were adopted in 1919. In 1920 the Trustees authorized the preparation of a development plan for the College which would take into account not only the existing situation, but the future needs and growth of the institution as far as it was possible to foresee. This plan considered not only the academic program of the College, but the architectural, aesthetic, economic, and utility values as well. One of its noteworthy features is the relative location of buildings from the standpoint of common interests of allied subjects. In solving the problems of design, the College engaged the services of such specialists in architecture and landscape-gardening as Warren H. Manning, Milton B. Medary, Charles Z. Klauder, Thomas W. Sears, and Paul Cret.

The Penn State campus of the future was visualized and planned no less carefully than were the buildings, and in the nineteen-thirties it underwent a marvelous change as a result of the landscaping designs of the development plan. In 1934, numerous projects approved by the consulting landscape artist and authorized by the Civil Works Administration were carried out by the College authorities. These embraced extension of roadways, grading, roadside landscaping, seeding and drainage of five central campus areas, and repairs and enlargement of parking areas. Certain roads and walks were



THE MALL

relocated, and additional ones were constructed. There are about nine miles of walks on the campus. Additional shrubbery was planted, and concrete curbs were constructed on Burrowes Road, Pollock Road, and Curtin Road. All the roads on the campus are now hard surfaced, and several miles of cement walk have been put down. Through traffic was diverted from the campus by the construction of the cement road between the golf links and the campus, and by the construction of the east driveway between the campus and the College farms. The campus now has approximately 87 acres of first-class lawns, beautifully landscaped with about 80 species of trees and more than 400 varieties of shrubs, some of which are uncommon in this locality. Of the 700 trees on the campus, the European elm and the Norway maple are the most numerous, though of late there has been a tendency to feature the American elm in landscape development.

Such was the expansion of the physical plant, present and in prospect, that in 1932 the Board appointed a special committee, under the chairmanship of Colonel J. H. M. Andrews, '98, to consider a policy and plan of naming College buildings and roads. Under this plan the main roads traversing the campus were named in honor of certain Governors of the Commonwealth and Presidents of the College; and suitable markers were erected designating them. Buildings were named after Presidents of the College, Trustees, and former outstanding members of the faculty. No road or building was named after any living person.

In President Hetzel's administration more than 1000 acres adjacent to the College farms have been added to the landholdings of the College farms, besides the land acquired when the College absorbed the Forestry School at Mont Alto. Furthermore, under a project of the Soil Conservation Service of the United States Department of Agriculture, a tract of

land comprising about 6000 acres was leased to the Pennsylvania Department of Forests and Waters, which in turn leased 4500 acres of this tract to The Pennsylvania State College for 99 years. This area, located about ten miles southeast of State College and known as Stone Valley, was secured for the purpose of practicum projects in the School of Mineral Industries and in the Departments of Civil Engineering and Forestry of the College. The Federal Government erected on this site three major buildings—one for the use of the School of Mineral Industries, one for the Department of Forestry, and one for the School of Engineering. In addition to the main buildings, cabins and other auxiliary minor buildings were provided. These facilities have been in use for summer operations since 1939. In 1939 the College further leased 22 acres of land in Lancaster County for tobacco research.

While The Pennsylvania State College was expanding in its instructional and research services, in its student body and faculty, in its financial resources, and in its physical plant, important administrative changes had been taking place. These changes resulted either from the needs arising from the growth of the institution, or from a desire to secure greater efficiency in conducting its operations. One of the problems inherited by President Hetzel from the preceding administration was the vexed question of the relation of the Forestry Department of the College to the Forestry School at Mont Alto. During the first administration of Governor Pinchot, some trouble had arisen over the fact that there were two forestry schools in Pennsylvania; and the whole matter bristled with unpleasant possibilities. The Mont Alto Forestry School had been established in 1903, while the Forestry Department at Penn State dated from 1905, and both were doing good work. It was felt, however, that one forestry school would meet the needs of the situation, and a happy

solution of the problem was found in securing from the Legislature an act passed in April 1929 providing for the merger of the two schools. As a result of the merger, the equipment and facilities of the schools were united, and the best ideals of both were drawn upon in developing the work. The instructional facilities provided by Penn State and the opportunities for practical training afforded by Mont Alto combined to produce satisfactory results. Both plants are used for the training of foresters, the students taking a portion of their course at each place. In 1937 the Legislature passed an act deeding the Mont Alto Forest School property to the College.

Another significant change was effected when, in January 1930, the Trustees provided that, after July first of that year, the Department of Physical Education should be organized under the title of the School of Physical Education and Athletics "with the same status and the same general responsibilities as attach to . . . the other Schools of the College." Hugo Bezdek was continued as Director of the new School, and all the members of the staff were to be employed as members of the academic staff and to be responsible to the College administration in the same manner as the staffs of the other Schools of the College. This was the eighth and last of the Schools to be created at The Pennsylvania State College. Another development in College procedure occurring about the same time was the decision of the Trustees to establish an Inter-Session preceding the regular Summer Session, and a Post-Session following the Summer Session. The first Inter-Session, then lasting only two weeks, was held in the summer of 1930, and two years later the Post-Session was instituted. These having been found desirable and practicable, in the fall of 1933 the Executive Committee of the Board of Trustees approved the recommendation of the College Senate that the Inter-Session and Post-Session be made a permanent feature

of the institution and be extended to three weeks each, thus providing for a total of twelve weeks of summer work.

The Institute of Animal Nutrition had been established in 1907 as an independent research body under the direction of Dr. H. P. Armsby; though associated with the Agricultural Experiment Station, it had no administrative connection with it and its position was somewhat anomalous in the general scheme of things. In theory the director was responsible to the President of the College, but in practice the Institute operated largely without supervision as to its budget, its projects, and its personnel. In 1933 the Trustees decided to terminate this awkward arrangement by relieving the President of a situation that had grown up over a period of years, and for the supervision of which he could not be expected to have the required technical knowledge. Hence the Institute of Animal Nutrition was given the status of a department of the School of Agriculture, subject to the same controls and procedures as other departments of the School.

Meanwhile, the College was being besieged with requests from many communities in the Commonwealth for instruction of college grade to be offered locally, either in the form of junior colleges or of a similar type of extension centers for undergraduate instruction. This demand was greatly aggravated during the depression period of the early 1930's because of the large numbers of boys and girls who had graduated from high school but were unable to go to college or to secure employment. In response to this demand, the College in 1933 established experimental class units at Sayre, Towanda, Bradford, and Warren. In the following year, after elaborate surveys had been made, Undergraduate Centers were established at Uniontown, Pottsville, Hazleton, and Dubois. Later, the Center at Uniontown was discontinued and a new Center was begun at Altoona. So placed as not to

compete with other educational institutions, the Undergraduate Centers are designed to provide instruction on the freshman and sophomore levels and in a manner to insure that their standards of instruction shall parallel campus standards. The members of their staffs are regarded as regular members of the resident departments of the College, and keep in close touch with them. David B. Pugh was appointed Director of Arts and Science Extension and Supervisor of the Undergraduate Centers.

A major administrative change in the instructional work of the College was made in 1934 in the creation of the Lower Division. This was done upon the recommendation of the faculties of the School of the Liberal Arts and the School of Education in the belief that the objectives of both Schools would be better served by such an arrangement. The scheme provided that thereafter the two Schools were to be operated on the basis of a common curriculum for the freshman and sophomore years in what is known as the Lower Division. A further result of the plan involved the reorganization of the School of Education whereby its work was confined largely to the junior and senior years and to graduate study. Students intending to take their junior and senior years in the School of Education matriculate in the Lower Division and take their first two years of work there.

The growth of the College and the increasingly heavy responsibilities devolving upon the President led to an administrative reorganization in the instructional, extension, and business management of the institution. In August 1935 the office of Assistant to the President in Charge of Resident Instruction was created with a view to more efficient supervision and coordination of the work of instruction, and to this office Mr. Adrian O. Morse was appointed. In June 1934 the Trustees took measures looking to the reorganization of

the extension work of the College, and appointed Professor J. Orvis Keller, '13, to the office of Assistant to the President in Charge of Extension. The primary purpose of this action was to bring about a federation of the many divisions of the College engaged in extension activities. A reorganization of the business office was effected. The office of Comptroller was abolished, and Mr. S. K. Hostetter was appointed Assistant to the President in Charge of Business and Finance. This officer was charged, subject to the authority of the Trustees and of the President of the College, with the responsibility for the general supervision and direction of the several offices of the College concerned with business and finance. The following year the office of Bursar was established, to which position Mr. Russell E. Clark, '19, was appointed.

A new departure in administration was the creation of the Institute of Local Government within the School of the Liberal Arts by action of the Trustees in June 1936. The purpose of the Institute is to provide facilities for the training of students for service in local government; to meet more fully the demand for additional training of municipal officers and employees in methods of practical administration; and to develop research in the problems of local government. Dr. Harold F. Alderfer, who has an advisory committee to aid him, was appointed Executive Secretary of the Institute. Another recent addition to the administrative machinery of the College was the organization of the Placement Bureau. For some years there had existed a demand for a centralized Bureau of this kind on the campus, and the Trustees authorized its establishment at their meeting in January 1940. Mr. George N. P. Leetch, '41, was appointed Director and entered upon his duties in January 1943. The Placement Bureau has as its primary purpose to aid graduates and alumni in securing positions; but it is also a clearing house for filling clerical

positions for College officers, and aids in securing part-time work for students. As a coordinating agency displacing the somewhat haphazard system previously prevailing, it performs an increasingly useful function.

During President Hetzel's term of office many administrative changes have taken place dealing with the division of large departments into smaller units, or with the establishment of new departments in response to public demand. Within the School of the Liberal Arts have occurred the following changes: the Department of English was divided into the separate departments of English Literature and English Composition in 1927, and two years later a Department of Journalism was created; and in 1940 a Department of Speech was established, and the Department of History and Political Science was divided into the two departments of History and Political Science. In the School of Agriculture the Division of Bacteriology in the Department of Dairy Husbandry was abolished, and in its place was substituted a Department of Bacteriology. In 1941 a curriculum in Medical Technology was established under the joint supervision of the School of Chemistry and Physics and the School of Agriculture; this offers the required training in biology and chemistry for students desiring to work in hospitals and in medical laboratories as technicians. In this year also a curriculum in Hotel Administration was created in the School of Education, designed to prepare young men and women for the hotel business. The Ellen H. Richards Institute, a research unit administered by the School of Chemistry and Physics, in conjunction with the School of Agriculture, was established in 1941 "for the study of certain aspects of the improvement of standards of living in the fields of foods, clothing, and shelter."

In the period under discussion there was an increasing recognition of the College and its services to the people of the

Commonwealth. Relations with the major industries and enterprises of the State became both broader and more intimate through the organization of advisory committees and short courses, and through the promotion of round tables. These served not only to broaden the contacts of the College, but to advance public understanding and appreciation. Many delegations representing the most progressive leaders in agriculture, engineering, manufacturing, and mining, visit the institution in the interest of research programs. Some of these interests have entered into cooperative relations with the College in the prosecution of research in their particular fields of activity. Material assistance has been given by industrial concerns to financing investigational work through the endowment of research fellowships. There has also been a notable advance in cooperation with the departments of the State Government, which in its turn has begun to look to the College for assistance through research, and for aid and counsel in the problems of government. Furthermore, there is an enlarged scope of cooperation of the College with the departments and agencies of the Federal Government in the solution of current economic problems. The public character of The Pennsylvania State College has become more generally recognized and more firmly established with each passing year. The College has always recognized its obligation to mould its policies and to adjust its procedure in such manner as is best adapted to serve the needs of the State and the Nation; and in return looks to government, both State and national, to provide adequately for its support.

In common with all the institutions of higher learning throughout the country, The Pennsylvania State College suffered from the effects of the financial depression of the early nineteen-thirties. This was not felt seriously by the College, however, until the session of 1932-33, when there be-

gan a falling off in the enrollment and a reduction in the State appropriations for several years, necessitating retrenchment in expenditures to keep within budget limitations. Nevertheless, by the session of 1934-35 the resident student enrollment had not only caught up with that of the pre-depression years but was the largest in the history of the institution up to that time. This result was accomplished despite the fact that it was not until 1937 that legislative appropriations placed the College again on a firm financial footing, thereby bringing the period of financial retrenchment definitely to a close. In view of the untoward fate that afflicted most colleges and universities in this trying period, it may be said that The Pennsylvania State College fared much better than the great majority of them, and recovered more rapidly from the effects of the depression.

Of vital importance to the College in shaping its policies and program is the Board of Trustees,¹ who in this period have consistently maintained the high level of character and ability which has characterized this body throughout its history. With the growth of the institution the responsibilities of the Board have increased, but the matters requiring attention are handled largely through standing committees charged with the oversight of the varied interests of the College. Chief among these is the Executive Committee, which has seven stated meetings each year. Other standing committees are those on Architecture, Buildings and Grounds, Educational Matters, Finance and Business, and Student and Staff Welfare. In the period under discussion Mr. J. Franklin Shields,

¹ The Board of Trustees has two stated meetings annually, and special meetings upon the call of the Chairman. As at present constituted, it consists of 32 members, of whom the Governor of the Commonwealth, the President of the College, the State Superintendent of Public Instruction, the State Secretary of Agriculture, and the State Secretary of Mines are ex officio members. Six members are appointed by the Governor, nine are elected by the alumni, and twelve are elected by delegates from the county agricultural and industrial societies.

'90, of Philadelphia, has been President of the Board since 1929; and the vice-presidents have been Messrs. James G. White and Vance C. McCormick, the latter being the present incumbent. Others rendering conspicuous service as members of the Executive Committee are: Messrs. E. S. Bayard, J. H. M. Andrews, '98, James Milholland, '11, Ambrose N. Diehl, '98, John C. Cosgrove, '08, Chester J. Tyson, Henry D. Brown, and Frederick A. Heim. Under the presidency of J. Franklin Shields, respected by all for his character and services and universally beloved by the alumni, the Board has remained true to the fundamental objectives of the institution. With scrupulous integrity it has administered the affairs of a great organization with an annual budget exceeding six million dollars. To the wisdom, energy, vision, and self-sacrificing labors of this body of men and the inspiring leadership of the President of the College, the present prosperity of the institution is owing in a measure that it would be difficult to overestimate.

Casting a retrospective glance at the nineteen years during which Dr. Hetzel has been President of the College, that which stands out most clearly in this eventful era is the expansion which has taken place in every direction. This expansion has not been confined to any one phase of the work of the institution, but is observable in every phase of its activity. It has been an era of building, when the physical plant has been renovated and augmented to proportions undreamed of by the founding fathers, or even by the optimists of the nineteen-twenties. At least, if they dreamed of it they hardly expected their dreams to come true in so short a time. The campus has been transformed into a thing of beauty and un-failing charm. The resident student body has grown from about 6000 (including the Summer Session) to more than 10,000, while the resident faculty has increased from 375 to

688, with a corresponding growth in the faculty of the extension services. The condition of the faculty has been greatly improved and its morale heightened. New departments of instruction have been established, extension work has been augmented to enormous proportions, and research has developed by leaps and bounds. Owing to the rapid growth of the institution, many administrative changes have taken place with a view to increased efficiency. Closer relations have been established with State officials and with the public, and legislative appropriations have doubled. The College has received increasing recognition at home and abroad, and its service to the people of Pennsylvania has established it in their regard and affections more firmly than ever before; and the ties that bind it to the Commonwealth and its great industrial interests are stronger and more numerous than at any time in the history of the institution. Standing now at its peak in numbers, usefulness, influence, and prestige, it faces the future with confidence. This favorable situation is the result of many forces that have combined to produce it. Among these may be mentioned the wisdom and vision of the Trustees and of the President, the ability and devotion of the faculty, the loyalty of the alumni, and the growth in public favor due to the larger service rendered to the Commonwealth as the people's college.



*THE TECHNICAL
SCHOOLS*

THE PENNSYLVANIA STATE COLLEGE is organized into eight Schools, each of which is presided over by a dean. The technical Schools may be classed as those of Agriculture, Engineering, Chemistry and Physics, and Mineral Industries; and the remaining four, consisting of the Liberal Arts, Education, Physical Education and Athletics, and the Graduate School, may, for convenience of treatment, be designated as the non-technical Schools. There are also certain independent departments and administrative units, such as the College Library and the Department of Military Science and Tactics, which are responsible directly to the President of the College. It is now proposed, in this and the three succeeding chapters, to sketch the history of the administrative divisions in such detail as the limitations of space will allow.

THE SCHOOL OF AGRICULTURE

The story of agricultural instruction looms large in the history of the College, though by no means to the preponderant extent long believed by the outside world. The Charter of 1855 was superseded by the Land Grant Act of 1862, which so broadened the fundamental objectives of the institution that it ceased thereafter to be devoted exclusively to the study of agriculture and its related fields. Nevertheless, because of the way in which the school originated, and especially because

of its early names of "The Farmers' High School" and "The Agricultural College of Pennsylvania," the idea long persisted throughout the State that the College was merely an agricultural institution, which it has never been except in the very beginning. Although agriculture has continued to be an important industry, it has not for many years been the leading economic interest of the Commonwealth. The College, however, has always recognized that agriculture is vital to the welfare of the people, and has sought to promote it by every means in its power.

Contrary to the general impression, instruction in agriculture at Penn State developed slowly over a long period of years and did not reach significant proportions until about 1907. When the College opened its doors to the public in 1859, William G. Waring was in charge of the farming operations, and so continued for several years. President Pugh, who was an agricultural chemist of a high order, taught practical and scientific agriculture until his death in 1864. Other early professors of agriculture or of agricultural chemistry were George C. Caldwell, John Phin, A. A. Breneman, John Hamilton, Thomas H. Burrowes, W. H. Jordan, and William Frear, the last of whom began his useful career at the College in 1885. The number of students electing to specialize in agriculture were few, and there were but ten graduates in this course prior to 1887. When Professor Whitman H. Jordan, the best trained agriculturist on the staff since the days of Dr. Pugh, came to the College in 1880, there appear to have been only one or two students specializing in agriculture; although the outside public had the impression that all the students at the institution were "farmers" and referred to it as a "cow college." Since there were no students electing the agricultural course in 1882, President Atherton asked Professor Jordan to devote his whole time to laboratory investigation and to the

preparation of the results for publication. In this way began the series of experiments in fertilizers at the College known as the "fertility plots," which have continued in part to the present day.

With but two students taking the agricultural course in 1887, the Department of Agriculture was languishing and the situation was discouraging; and its students continued to be a mere handful for twenty years longer. In 1902-03, for example, when the College enrollment was 602, Agriculture enrolled but 15, while there were 371 in Engineering, 68 in General Science, 51 in Chemistry, and 38 in Mining. In his report to the Trustees in 1887, Dr. Atherton called attention to "the little demand for the distinct teaching of agriculture under that name"; and in 1892 he explained the paucity of agricultural students on the ground that "the number of students selecting a course of instruction will depend upon the demand for their subsequent services," and that there were but few calls for highly trained agriculturists. No doubt another reason for the small number of agricultural students throughout the whole of the Atherton Era was the inadequate equipment for carrying on the work. As late as 1887, the only buildings on the College farm were several barns, a superintendent's house, and a herdsman's house; and the laboratory facilities for research consisted of one room in Old Main and a small adjoining office. The Experiment Station Building, erected in 1888, was a two-story frame building, which housed practically all the activities of the Department of Agriculture until the original Dairy Building, a small one-story brick structure, was erected in 1890 at a cost of \$1780. Hemlock Hall, the first building for general agriculture, was a temporary frame structure erected in 1893 at a cost of \$1165. The calorimeter building, begun in 1899, was not ready for use until 1902. The first unit of the modern agricultural group was the Dairy

Building (Patterson Hall), which dates from 1903. The Main Agricultural Building was not completed until 1907.

When the fortunes of the Department of Agriculture were at a low ebb, the situation was saved by the passage of the Hatch Act of 1887 establishing the Agricultural Experiment Station, which became, according to Dr. Atherton, "the nucleus and head of the entire agricultural Department." For some years, however, the activities of the department were centered on research rather than on instruction, with no appreciable increase in the number of students specializing in Agriculture. The situation was improved by the establishment in 1891 of the Short Courses in Agriculture. These were suspended in 1895 for lack of funds; but were resumed four years later, and thereafter became a regular feature of resident instruction. Prior to 1907, the number of students enrolled in the Short Courses greatly outnumbered the regular students electing Agriculture.

Upon the organization of the instructional work of the College into Schools in 1896, the School of Agriculture, of which Dr. H. P. Armsby was appointed dean, was planned to include Technical Agriculture, Agricultural Chemistry, Horticulture, Dairying, and Veterinary Science. The curricula thus instituted continued until 1907, when a thorough reorganization occurred. In 1904 Dr. Armsby, whose primary interest lay in research, asked to be relieved of the deanship in order to devote his whole time to the work of the Experiment Station. This was granted, and Professor William A. Buckhout served as acting dean until the coming of Dean Hunt, when Dr. Armsby became director of the newly created Institute of Animal Nutrition.

The year 1907 marks a turning point in the history of the School of Agriculture, which now entered upon an era of rapid development in sharp contrast to its previous languish-

ing condition. Among the factors contributing to this result were: the completion of the Main Agricultural Building and of the Forestry Building, providing more adequate facilities for carrying on the work; increased farm acreage and improved livestock; the growing appreciation of the valuable work of the Agricultural Experiment Station; and the stronger appeal of the School to the farming interests as it became better known through its Short Courses, Farmers' Week, and greater publicity. Of great significance, also, was the passage by the Federal Government of additional acts which served to stimulate the agricultural program of the College. The Second Morrill Act of 1890, the Adams Act of 1906, and the Nelson Amendment of 1907, appropriating additional funds for the maintenance of land-grant colleges, were especially helpful. It would appear, however, that the most important single factor in the situation was the appointment of Dean Hunt, and the reorganization effected through his efforts. Thus, with the coming of Dean Hunt in 1907, conditions were favorable for a strong forward movement, and the new dean made the most of it. The School of Agriculture had at last found itself, and thereafter forged ahead rapidly to its present position as one of the outstanding agricultural schools of the country.

Under the reorganization which took place at this time, the School of Agriculture was combined with the Experiment Station, Dr. Hunt becoming dean of what was known until recent years as the "School of Agriculture and Experiment Station"; while Dr. Armsby, relieved of administrative control of the Experiment Station, was made Director of the Institute of Animal Nutrition. The School was now divided into seven departments, consisting of Agricultural Chemistry, Agronomy, Animal Husbandry, Dairy Husbandry, Forestry, Horticulture, and Plant Pathology. The type of organization

inaugurated at this time remained essentially the same until 1923, when the Trustees provided for three vice-deans to relieve the dean of the excessive administrative details brought about by the growth of the School. Under the new arrangement, P. G. Bressler was appointed vice-dean and director of instruction; M. S. McDowell, '92, vice-dean and director of extension; and, some years later, S. W. Fletcher, vice-dean and director of research. Upon the resignation of Dean Hunt in 1912, he was succeeded by Professor R. L. Watts, '90, whose headship of the School continued until his retirement in 1937, when he was succeeded by Dr. S. W. Fletcher, first as acting dean and then as dean. The present organization includes: S. W. Fletcher, dean; Fred F. Linger, '17, director of the experiment station; and J. M. Fry, '17, director of extension. By action of the Board of Trustees, the official designation of the School was changed in 1941 to School of Agriculture, the words "Experiment Station" being dropped from the title.

When Dean Hunt assumed charge, or soon thereafter, the personnel of the School of Agriculture underwent considerable changes. Professor George C. Watson having resigned, and Professor George C. Butz having died, in 1907, their places as professors of agriculture and horticulture, respectively, were filled by the appointment of John W. Gilmore as professor of agronomy, and of R. L. Watts as professor of horticulture. Alva Agee was elected professor of agricultural extension, and H. P. Baker was made head of the newly created Department of Forestry. From 1907 until his death in 1922, Dr. William Frear continued as professor of agricultural chemistry and vice-director of the Experiment Station. His ability as a teacher and investigator was widely recognized, and the Trustees showed their appreciation of his services by naming the Frear Laboratories building after

him in 1939. Thomas I. Mairs was placed in charge of Animal Husbandry and was appointed Superintendent of Correspondence Courses.

Following the reorganization of 1907, the enrollment of regular four-year students in agriculture increased from 45 in 1906-07 to 133 in 1908-09; and from 514 in 1909-10 to 767 in 1914-15. This was a remarkable growth for so short a time, and serves to show how complete was the transformation of the School in this period. During the First World War the enrollment declined to 383, but recovered measurably from this disturbing influence, and in 1924-25 it numbered 543. Its growth thereafter was somewhat irregular, and it was not until 1934-35 that it approached its prewar level and entered upon another period of rapid advance which carried it to its maximum enrollment of 1178 in 1938-39. Of late years its most popular departments have been Forestry, Dairy Husbandry, Agricultural Education, Agricultural and Biological Chemistry. The number of students in the Short Courses averaged around 100 for many years; but in the past decade these courses have developed a great popularity, reaching the peak enrollment of 577 in 1940-41, when ten were offered, varying in length from five days to four weeks. To meet the needs of young men who do not have time or money to attend college for four years, a Special Course of Two Years was instituted in 1908, and became a permanent feature of the School. Starting with only 14 students, it enrolled 82 in 1909-10, 219 in 1930-31, and 180 (including Forestry) in 1940-41. It is now conceived of as being primarily vocational rather than professional, and is designed to meet the requirements of those who plan to engage in some phase of commercial agriculture.

There has been considerable expansion in the scope of resident instruction in the School of Agriculture, new curricula being added as the need arose. Six of those established in 1907-

08 have survived to the present day, but plant pathology was discontinued. By 1933, curricula had been added in Agriculture, Agricultural Economics, Agricultural Education, Horticultural Engineering, Botany, Landscape Architecture, Poultry Husbandry, Zoology and Entomology, and Pre-Veterinary. In this same period, also, the number of undergraduate courses had grown from 101 to 319, while the number of the teaching staff had increased from 23 to 90. Agronomy, which had been taught since 1904, became a separate department under Professor Gilmore in 1907, although he served in this capacity for only one year. In 1908 Professor Frank D. Gardner was appointed head of the department and so remained until his retirement in 1938, when he was succeeded by Dr. Charles F. Noll, '06. Animal Husbandry, which became a separate department in 1907-08, has had as its heads throughout almost its entire history Professors W. H. Tomhave and F. L. Bentley, the latter of whom has been in charge since 1927. Although William G. Waring was an instructor in horticulture for several years following the founding of the College, this subject fell into neglect for many years until Professor George C. Butz was appointed the first full-time horticulturist, serving until his death in 1907. Other outstanding heads of this department were Professors R. L. Watts and S. W. Fletcher, the latter of whom was succeeded in 1939 by Professor W. B. Mack, '21, the present head. The work in forestry, begun in 1905 under Professor W. A. Buckhout and directed by Professor B. E. Fernow in 1906-07, was established on a permanent basis in 1907 as a department in charge of Professor H. P. Baker, who served until 1912. Professor John A. Ferguson, his successor, whose long and conspicuously useful work as head of this department from 1912 until 1938 covers almost its entire history, retired in the latter year and was succeeded by Professor Victor A. Beede.

Dairy Husbandry has always received some attention at the College; but its development was retarded until it got under headway in 1889-90 with the establishment of the first dairy herd and the erection of the first creamery building. It has long been recognized as one of the leading departments of the School of Agriculture, with unexcelled facilities for carrying on its work. Throughout its history it has been in charge of Professors H. E. Van Norman, C. E. Larson, Frederick Rasmussen, and Andrew A. Borland, '09, the last-named being the present incumbent. Landscape Gardening first appeared in the catalogue as a curriculum in 1909-10, with Professor J. W. Gregg in charge. In 1914 he was succeeded by Professor A. W. Cowell, upon whose resignation in 1926 Professor John R. Bracken became head of the department and has so remained until this time. In 1917 it was renamed "Department of Landscape Architecture."

Botany has always been taught at Penn State to a greater or less degree. Professor J. S. Whitman was listed in the first catalogue as professor of botany, physiology, zoology, and veterinary, and continued to teach botany as his principal subject until his resignation in 1866. The name associated with this course throughout most of the early history of the institution and well into the twentieth century is that of Professor William A. Buckhout, after whom the present Buckhout Laboratory building is named. An alumnus of the College, '68, he became professor of botany, zoology, and geology in 1871, but from 1878 to 1908 was professor of botany and horticulture; thereafter his whole time was given to teaching botany until his death in 1912. At various times he served also as secretary of the faculty, botanist of the Agricultural Experiment Station, acting dean of the School of Agriculture and acting president of the College. Professor Buckhout has become one of the traditions of Penn State, his long and dis-

tinguished service as teacher, investigator, and administrator entitling him to a high place on the institution's roll of honor. In 1913 he was succeeded by Dr. Frank D. Kern, the present head of the department. The Department of Botany, formerly in the School of Natural Science, was transferred in 1907 to the School of Agriculture, where it has since remained.

The Department of Agricultural Education, established in 1909 and reorganized in 1917 under the name of the Department of Rural Life, was divided in August 1923 into the departments of Agricultural Economics and Agricultural Education; the last-named department was transferred for a time to the newly created School of Education, but later was retransferred to the School of Agriculture. Agricultural education was greatly influenced by the Smith-Hughes Vocational Education Act of 1917, which provided large funds for the training of teachers of agriculture for secondary schools; and which the College administers for the Commonwealth of Pennsylvania. The Department of Agricultural Economics, organized in 1923 as the "Business Course in Agriculture," is designed to meet the demands of business training for farmers. In 1925 Professor F. P. Weaver was appointed head of this department and so continued with noteworthy success until his retirement in 1938, when he was succeeded by Professor F. F. Lininger. Agricultural and Biological Chemistry has a tradition dating back to the founding of the College, when President Pugh taught agricultural chemistry—his major scientific interest. Instruction in this subject received a strong impulse under Professor William Frear and later under Professor R. M. Dutcher, who succeeded Professor Frear as head of the Department of Agricultural Chemistry. This department, renamed the "Department of Agricultural and Biological Chemistry," is now housed in the new Frear Laboratories Building.

Zoology was listed in the first catalogue as one of the subjects taught by Professor J. S. Whitman, who appears to have given it some attention until 1863, when it lapsed for some years. A decade later it reappears, being taught by Professor Buckhout, along with botany and geology, for six years, when it lapsed again until it was restored in 1881 under Professor A. L. Ewing, who taught geology and zoology for several years. In 1890 the Department of Zoology was established with H. T. Fernald as its first head and full-time instructor. His successors in charge of the department have been: H. A. Surface, W. R. McConnell, M. W. Eddy, and E. H. Dusham, the last-named serving as head of the department since 1918. Prior to 1924 the Department of Zoology was in the School of Natural Science, but in that year it was renamed the "Department of Zoology and Entomology" and was transferred to the School of Agriculture, where it has since remained. Poultry Husbandry, formerly included in the Department of Animal Husbandry, was organized into a separate department in 1920 in charge of Professor H. C. Knandel, who remained its head until 1944. The Department of Farm Machinery, renamed "Agricultural Engineering," was established in 1920, and in 1930 offered a regular four-year curriculum; Professor R. U. Blasingame has been in charge of it from the beginning. Bacteriology, formerly a division in the Department of Dairy Husbandry, was established as a separate department in 1940, with Professor M. A. Farrell as head. There is also a three-year Pre-Veterinary curriculum in charge of Dr. James F. Shigley; and a curriculum in Medical Technology under the joint supervision of the School of Agriculture and the School of Chemistry and Physics.

From the foregoing description of the curricula in the School of Agriculture, it will be observed that resident in-

struction in this School has been greatly strengthened and diversified in the past two decades. No longer confined to courses which relate to agricultural production only, its scope has been broadened to include a wide range of subjects in rural economics and sociology.

The elaborate extension service of the School of Agriculture was made possible by the large appropriations received from the Federal and State Governments for this purpose. This work began at Penn State with the publication and distribution of bulletins, and with the inauguration in 1892 of the Chautauqua Course of Home Reading in Agriculture, the name of which was changed in 1897 to "Correspondence Courses in Agriculture." By 1907 more than 5000 students had been enrolled in these courses, and by June 1916 the number had reached a total of 22,000; and by 1944 it had exceeded 70,000. In recent years the annual enrollment has ranged between 3000 and 4000. Professor Thomas I. Mairs was in charge of these courses from their inauguration until 1941, when he was succeeded by Professor W. R. White, '07. As noted in the preceding narrative, the Department of Agricultural Extension was organized in 1907, with Professor Alva Agee in charge. In 1913 Professor M. S. McDowell, '92, succeeded Professor Agee as Director of Agricultural Extension and so continued until his retirement in 1942, when he was succeeded by Professor J. M. Fry. With the passage by Congress of the Smith-Lever Act of 1914, providing large sums for extension work in agriculture and home economics, the College instituted a far-reaching program of extension, the details of which are described in a later chapter.¹

Although some agricultural research has always been carried on at Penn State, it never reached important pro-

¹ See Chapter XV, in which the extension work of the several Schools of the College is described at greater length.

portions until the founding of the Agricultural Experiment Station in 1887. Some field-plot experiments were laid out on each of the three experimental farms purchased under the legislative act of 1867; but the results were meagre, and the Eastern and Western Experimental Farms were discontinued in 1885. No significant agricultural research was accomplished by the College until 1881, when Dr. Whitman H. Jordan organized the "Jordan Fertility Plots"—the oldest of their kind in the United States. These 144 plots were continued until 1939, when half of them were released for other purposes. Dr. Jordan issued the first agricultural research bulletin in 1882, and other numbers followed. Upon his resignation in 1885, agricultural experimentation was continued under the efficient direction of Professor William Frear.

The passage of the Hatch Act of 1887 was followed promptly by the establishment of the Agricultural Experiment Station at the College, and by the erection in 1888 of a building to house the new department. The original staff of the Station included: H. P. Armsby, director; William Frear, vice-director and chemist; William A. Buckhout, '68, botanist; George C. Butz, '83, horticulturist; and William C. Patterson, superintendent of the College farm. The funds available for agricultural research were further increased by the passage of the Adams Act in 1906, of the Purnell Act in 1925, and of the Bankhead-Jones Act in 1935, supplemented by substantial appropriations made by the State Legislature. In 1941 the College expended \$417,000 for agricultural research.

In 1907 the Trustees established the Institute of Animal Nutrition as a highly specialized research agency distinct from the Experiment Station, although cooperating with it. Dr. H. P. Armsby, who was appointed director of the Institute, devoted himself with enthusiasm and with conspicuous

ability to research in animal nutrition until his death in 1921. Preparations for investigation in this field began in 1898, when the Experiment Station, in cooperation with the Bureau of Animal Industry of the United States Department of Agriculture, undertook the construction of a respiration calorimeter under the direction of Dr. Armsby. Promptly upon its completion in 1902, this distinguished investigator conducted his experiments in the values of feeds and the feed requirements of animals, winning fame for himself and for the College as the leading authority on the subject. Upon his death in 1921, he was succeeded by Dr. E. B. Forbes, under whose direction the Institute has continued its studies in the values of feeds for cattle, and has published more than 100 scientific papers showing the results of these studies. In 1933 the Institute of Animal Nutrition was made a department of the School of Agriculture.

Apart from the fundamental research carried on by Dr. Armsby in animal nutrition, most of the early investigations of the Agricultural Experiment Station were concerned with the solution of problems of immediate practical interest to Pennsylvania farmers. The Adams Act was intended primarily to support fundamental as distinct from applied research, with emphasis on the study of the sciences which underlie farm practice; but the major concern of the Experiment Station has always been the solution of the practical problems of agriculture. The Purnell Act, while furnishing funds for the solution of the problems of production, directed investigation more particularly into the economic and social problems of farmers—especially the marketing of farm produce and the study of agricultural economics and rural sociology with reference to the improvement of the rural home and the enrichment of rural life. Thus the scope of agricultural research was broadened to include a new field of investigation. An in-

creasing proportion of research is carried on in cooperation with the United States Department of Agriculture, with various divisions of the State Government, and with industrial concerns. A further change in the work of the Experiment Station may be noted in the fact that it is no longer localized at the College, but is State-wide in scope and service, substations having been established in different parts of the State for conducting investigations on the spot where the problem arises.

A continuous expansion of the facilities of the Agricultural Experiment Station has taken place since its establishment in 1887. The staff has increased from 5 to 148, the experimental farm from 110 to 1800 acres, the number of projects from 8 to 156, and the budget from \$20,000 to \$417,000. Of the 166 members of the resident agricultural staff (not including extension workers), 101 are engaged in research, 57 for full time and 44 for half time. Besides the notable research in animal nutrition, important investigations have been made by the Station staff, resulting in the origination of new varieties of cereals and vegetables; among these may be mentioned Nittany wheat ("Pa. 44"), Patterson oats and Keystone oats, Matchum tomatoes, and Penn State Ballhead cabbage. Other noteworthy contributions are a feeding ration developed by the Department of Animal Husbandry, taxation studies made by the Department of Agricultural Economics, an improved type of mushroom spawn discovered by the Department of Botany, and vitamin research by the Department of Agricultural and Biological Chemistry resulting in the increased consumption of milk. In fact, significant investigations are under way in all the departments of the School of Agriculture, and the extension service makes them known to farmers in every corner of the Commonwealth.

In the session of 1941-42 the resident staff of the School of

Agriculture consisted of 150 instructors engaged in teaching and research; while those engaged in agricultural and home economics extension numbered 237, of whom the majority resided in the counties to which they were assigned. Throughout its history this School has had many able teachers and investigators, whose labors have enriched the State and the Nation, and have brought prestige to the College. Some of them, like Jordan, Butz, Buckhout, Armsby, Frear, and Ferguson, have already become traditions treasured by the alumni. Deans Armsby, Hunt, Watts, and Fletcher have been notable administrators in agricultural education and have contributed powerfully to bring the School of Agriculture to its present high position in the educational world. The School is ably manned today; it still has great teachers and investigators who are performing a splendid service to the Commonwealth.

The School of Agriculture is adequately housed in nine major buildings devoted to instruction and research, besides numerous departmental service buildings, such as greenhouses, poultry houses, and barns. The first units of the modern agricultural group were the new Dairy Building erected in 1903, and the Main Agricultural Building, completed in 1907. The old Forestry Building, erected in 1907, was a temporary frame structure and has since been abandoned. In 1915 the Horticultural Building, the Stock Judging Pavilion, and the New Dairy Barn were constructed; but no further agricultural buildings were erected until 1924, when the modern Beef Cattle Barn and the Horticultural Packing House were added. In the first building movement of President Hetzel's administration, the School of Agriculture fared well in the construction of the Buckhout Laboratory, along with four needed service buildings. Then followed in 1932 the imposing Dairy and Creamery Building and a service

building for fruit storage. Meanwhile, the College had acquired the substantial buildings of the Mont Alto Forestry School upon the merging of this school with the Penn State Forestry Department. In the second main building movement of President Hetzel's administration, the School of Agriculture was well provided for in the erection of the new Forestry Building, the Agricultural Engineering Building, and the Frear Laboratories building, not to mention additional poultry buildings. In 1941 the old Experiment Station Building was remodeled and was renamed the "Agricultural Education Building." All the buildings of the modern group are brick structures, well-constructed and adequately equipped. With the growth of the College, its landholdings have steadily increased until they now comprise about 3000 acres, of which some 800 acres are in woodland and forest plantings. The livestock of the School includes herds and flocks of dairy cattle, beef cattle, sheep, swine, and laying hens, besides a large number of baby chicks, turkey poults, and pheasants hatched annually for experimental purposes.

By reason of the liberal appropriations received from the State and Federal Governments for extension and research, the School of Agriculture has much the largest financial resources of any School of the College. In 1940-41 its budget was \$1,838,038, which was expended as follows: \$534,263 for resident instruction, \$864,433 for extension, and \$437,342 for research. Always regarded with favor by the Legislature and by Congress, it has regularly received the lion's share of legislative appropriations. Splendidly housed and equipped, ably staffed, and supported by substantial appropriations, the School of Agriculture is doing very well, but no better than it deserves in view of the service it is rendering to the agricultural interests of the Commonwealth and of the country.



FREAR LABORATORIES
Agricultural and Biological Chemistry; Zoology and Entomology

THE SCHOOL OF ENGINEERING

The School of Engineering was the first of the Schools of the College to attain major proportions and a recognized rank among the leading institutions of the United States, and for many years it enrolled a disproportionately large percentage of the students. From about 1893, when it began to strike its stride, it regularly enrolled from two-thirds to three-fourths of the entire student body for a decade or more; and thereafter it remained well in the lead until the nineteen-thirties, when its enrollment became second to that of the School of the Liberal Arts. It was also the first of the Schools for which separate buildings were erected, being indeed the first to grow to such proportions as to require greatly increased facilities. With the growing dominance of the industries in the manufacturing East in general and in Pennsylvania in particular, the Engineering School prospered despite the fact that it was discriminated against in favor of the agricultural interests in State and federal appropriations, to which it had equal claim in a land-grant college. President Atherton, however, was fully aware of the obligation to develop instruction in the "Mechanic Arts" equally with that in agriculture; and, as we have seen, one of the chief accomplishments of his administration was the placing of the School of Engineering on a firm foundation, upon which was erected one of the leading engineering schools of the country. This School has long had a strong faculty, a large student enrollment, and, especially in recent years, excellent facilities for carrying on its work.

Although no instruction in engineering was given at Penn State prior to 1881, the desirability of such a course was well recognized. President Pugh's *Plan for the Organization of Colleges for Agriculture and the Mechanic Arts*, published in

1864, called for a professor of civil engineering and applied mathematics; and the plan of President Fraser in 1867 proposed a course in mechanical and civil engineering. Owing to lack of funds, however, no such course was actually offered. In the spring of 1881, the Trustees approved a plan suggested by the faculty for the organization of a "Mechanical Practicum," and John H. McCormick was employed as instructor in drawing and mechanic arts. Given a room above the pumping station, he instructed the students in woodworking and drawing, but served only one year. In June 1881, the Trustees authorized the Executive Committee "to determine the feasibility of the immediate establishment of an Engineering Department," and to organize such a department if they deemed it advisable. This resulted in the creation of the Department of Civil Engineering in 1881, and in the prompt election of L. H. Barnard as the professor in charge. Such was the origin of engineering at The Pennsylvania State College.

The Department of Civil Engineering started off well under Professor Barnard; and in 1882 Dr. Atherton reported that, although it had been established only a year, it was already one of the most active departments in the institution. It will be recalled that in 1884, owing to the demand of Governor Pattison for radical retrenchment, the chair of civil engineering was combined with that of mathematics; and that, had this arrangement been fully consummated, it would have meant the practical elimination of engineering at the College. A way was found, however, to retain Professor Barnard on an emergency basis for the time being; and soon thereafter on a permanent basis with the re-establishment of civil engineering. Professor Barnard continued to serve as head of the department until his resignation in 1893, by which time it had attained considerable growth and prestige. The

next head of the department was Professor Fred E. Foss, who remained in charge until 1907, when he resigned and was succeeded by Professor Elton D. Walker. Professor Walker administered the department with notable success until his retirement in 1939, when he was succeeded by Dr. F. T. Mavis.

Civil Engineering occupied crowded quarters in Old Main until it was transferred to the Main Engineering Building in 1893. It now has offices, classrooms, and laboratories in the new Main Engineering Building and in other buildings of the engineering group. Its structures laboratory and its highway materials are in Engineering Unit A, and its hydraulic laboratory occupies two rooms in the basement of Main Engineering Building. It has also a Summer Surveying Camp in Stone Valley, with more than 1000 acres available for intensive instruction in topographic and engineering surveying during the summer. Within the department is a special curriculum in Sanitary Engineering, dealing with problems of water supply, waste disposal, sewage, and public health.

The second department to be established in the School of Engineering was that of Mechanical Engineering, the early history of which is particularly associated with Professor Louis E. Reber, '80, who ranks high among the fathers of engineering at Penn State. Following graduation, he was retained as military instructor and as an assistant in the Preparatory Department. Encouraged by Dr. Atherton, he spent a year in advanced study at the Massachusetts Institute of Technology; and, upon the completion of his studies, was appointed professor of mechanical drawing and instructor in mechanic arts at the College in 1884. This work, begun by Mr. McCormick and continued with the aid of Professors Barnard and Josiah Jackson, was now reorganized by Professor Reber. Upon the creation of the Department of Mechanical Engineering in 1886, Professor Reber was appointed

its first head, with the title of professor of mechanics and mechanical engineering. Meanwhile, a small fund had been accumulated for the erection of a building, which was a small frame structure containing four rooms—a forge room and a lathe room on the first floor, and two rooms for turning and carpenter shops on the second floor. The entire expense involved amounted to \$1650 for the building, and \$1800 for its equipment. Having a special significance as being the first structure to be erected on the campus for purely academic purposes, it was dedicated with appropriate ceremonies on February 10, 1886. During Professor Reber's headship of the department, elementary mechanics, testing materials, hydraulic machinery, shop courses, and mechanical drawing were also taught under his direction. The first three graduates in Mechanical Engineering were John Price Jackson, H. E. Miles, and Jacob Struble, class of 1889.

When the School of Engineering was organized in 1896, Professor Reber was appointed its first dean, and continued to serve in this capacity and as head of Mechanical Engineering until his resignation in 1907 to accept a position at the University of Wisconsin. He was followed, as head of Mechanical Engineering, by Professor Hugo Diemer, '13, who held this position until 1909, when he was transferred to the headship of the newly established Department of Industrial Engineering, which he had been instrumental in inaugurating. The vacancy thus caused was filled by the appointment of Professor Louis A. Harding, who was in charge of Mechanical Engineering from 1909 to 1912. Professor Harding was instrumental in securing the construction of two one-story brick buildings, known as "Thermal Laboratories," in 1911. These structures, later enlarged and united into one, have served for purposes of research down to the present time. Later heads of this department were J. A. Moyer, E. A. Fes-

senden, A. J. Wood, and Harold A. Everett, the last mentioned having served as head since 1931. In 1911 a course in milling engineering was instituted in this department under the direction of Professor B. W. Dedrick; and in 1913 a further advance was made when a new course was offered in railway mechanical engineering. At present, the Department of Mechanical Engineering occupies a modern fireproof building, with additional space in three other buildings. All the equipment relating to the principal lines of experimental and research work in this department is provided in a single unified laboratory. The equipment includes various types of steam engines and turbines, with auxiliary apparatus and instruments for their complete testing. A laboratory is devoted to the study of gaseous, liquid, and solid fuels, and the physical properties of oils. The department has a curriculum in Aeronautical Engineering, with special equipment, which includes a wind tunnel providing wind velocities up to 125 miles per hour, and a drafting room for classes in aeronautical engineering design.

The third full-fledged engineering department to be organized by the College was that of Electrical Engineering. At Penn State, as in many other institutions, this course originated in the Department of Physics and underwent a certain development in that department before arriving at an independent status. In the catalogue of 1887-88 there appeared for the first time the description of a course in physics and electrotechnics, designed to furnish instruction not only in the various branches of physics but in "electrical science" as well. For advanced work in physics, one of the options was electricity; and not only the theory of the subject but also some of its chief applications were studied. Additions to the course were made until it became a full curriculum in Electrical Engineering, including an advanced technical course in

electricity. Since it attracted numerous students and obviously had large possibilities, steps were taken to organize it into a separate department. Hence, in 1893, the Department of Physics and Electrotechnics was divided into the two departments of Physics and Electrical Engineering. Professor J. P. Jackson, '89, was appointed head of the new Department of Electrical Engineering, which was transferred to the recently constructed Engineering Building. It now offered a regular four-year curriculum in electrical engineering, although it was not until 1896 that the Trustees officially established it as the Department of Electrical Engineering. Professor Jackson continued as its head from 1892 until 1907, when he succeeded Professor Reber as Dean of the School of Engineering. In 1908 Professor Charles L. Kinsloe, '03, was appointed acting head of the department and two years later became its permanent head—a position that he has held for thirty-five years, during which period the Department of Electrical Engineering has attained a remarkable popularity and success. It now occupies two buildings—Engineering Unit E, and the splendid new Electrical Engineering Building. Its equipment is of the best and includes the following laboratories: dynamo, illumination and photometric, measurements, wire communications, radio, acoustics, electronics, research, high tension, electric railway, and electrochemical engineering.

Thus it is seen that engineering at Penn State had begun to find itself and to enter upon its career of significant progress by 1893—the year in which the new Engineering Building was dedicated. An appropriation of \$100,000 for this building, which was originally intended to accommodate the departments of Civil, Mechanical, and Mining Engineering, was made by the Legislature in 1891. Much the costliest building to be erected on the campus since the completion of Old Main, it

contained three stories and fifty-seven rooms, had a front of 266 feet and a depth of 208 feet, and covered one and one-seventh acres. The construction of this building, the dedication of which was one of the proudest days in the life of President Atherton, indicates the importance that engineering had attained at the College and throughout the country. Thereafter the School of Engineering, attracting a preponderant number of students for many years, made rapid and consistent progress. When it was established in 1896 with Professor Reber as dean, its curricula embraced Civil Engineering, Mechanical Engineering, Electrical Engineering, and a two-year elementary course in mechanics. Later, upon the reversion of the School of Mines for a few years to the status of a department, Mining Engineering was also included in the curricula. Upon the resignation of Dean J. P. Jackson in 1914, Professor Elton D. Walker served for one year as acting dean. In 1915, R. L. Sackett was appointed Dean of the School of Engineering—a position he held with distinction until his retirement in 1937, when he was succeeded by H. P. Hammond, the present dean.

The next department to be established in the School was that of Industrial Engineering, which appeared as a two-year course in 1908-09; and as a regular four-year curriculum in 1909-10, with Professor Hugo Diemer in charge. While head of the Department of Mechanical Engineering, Professor Diemer had become much interested in shop management and allied subjects, and was largely responsible for the creation of the Department of Industrial Engineering; and now relinquished his former position in order to become its head. Back of the course was the idea of training men in the essentials of superintendence and management, in response to the demand of manufacturers for men with such training. It grew slowly at first; but, having proved its worth, devel-

oped into a strong department. Professor Diemer served as its head until 1919, since which time it has been successively in charge of E. J. Kunze, J. Orvis Keller, '13, C. W. Beese, and C. E. Bullinger, '21.

In his report to the Trustees for 1909, President Sparks referred to the recent appointment of an instructor in architectural drawing, and expressed the hope that it would lead eventually to a department of architecture. This hope was realized a year later when a course in architectural engineering was instituted, and new rooms for its use were fitted up over the shops in the Main Engineering Building. The new "course" was in reality a full-fledged four-year curriculum in architectural engineering—the fifth regular department to be established in the School of Engineering. Its first instructors were J. B. Whitmore, who taught drawing and was in charge of the department; and H. M. Glazier, who taught architectural design. Despite the cramped conditions under which the work was carried on in its earlier years, the department attracted students from the beginning and has developed into one of the largest and most respected architectural departments in the country. Its rapid growth led to its division in 1922 into the two branches of architectural engineering and architectural design. In 1927 the option of Fine Arts was inaugurated, and in 1928 the department moved from its crowded quarters in Engineering F to more commodious quarters in the new Main Engineering Building. A feature of the work which has brought recognition to this department at home and abroad is the entrance each year of student drawings in the exhibit of the Beaux Arts Institute of Design. The Department of Architecture now occupies the third floor of the Main Engineering Building, and has additional space in three other buildings; it is well equipped for the study of architecture, architectural engineering, fine and applied arts,

and engineering drawing. The heads of the department since 1911 have been R. I. Webber, A. L. Kocher, L. F. Pilcher, C. L. Harris, J. M. Judge, and B. K. Johnstone.

The Department of Engineering Mechanics was established in 1907-08, with Professor Charles E. Paul in charge. Professor P. B. Breneman, with whom this department is chiefly associated, became its head in 1908 and served until his retirement in 1938. Later heads of the department were R. K. Bernhard and F. T. Mavis. Prior to 1940-41, its title was Department of Mechanics and Materials. It supplies laboratory facilities for the determination of physical and mechanical properties of engineering construction materials, and is further provided with statics, dynamics, and X-ray laboratories.

Resident instruction in the School of Engineering is given through eight curricula in engineering and architecture, supplemented by courses in fine and applied arts for students of other Schools of the College. Except for those pursuing courses in Architecture and Architectural Engineering, a common curriculum is provided for all freshmen in this School. Through the study of scientific and humanistic subjects, the earlier years of the curricula are intended to lay the foundation for the pursuit of professional studies in the later years. In their junior and senior years, students in engineering take tours to various large cities for the purpose of examining operations related to their technical courses. During the session of 1939-40, the faculty of the School made a comprehensive study of engineering curricula with a view to bringing these into line with present-day practice. Although this resulted in no radical changes in the general type of engineering courses offered, certain modifications were made looking to increased emphasis on science and the humanities. Every student in engineering is now required to take public speak-

ing, and must elect at least one course in the humanities each semester, including both English composition and literature.

As new industries developed from time to time, the field of engineering broadened; and additional courses were provided to train men for these new fields of activity. The widening of the scope of instruction was accompanied by a rapid increase in the number of students and a corresponding increase in the faculty. In 1894-95, and for five years thereafter, the enrollment in the School of Engineering was consistently around 150, but in 1899-1900 it took a sudden jump to nearly 200. It was approximately 400 in 1902-03, and by 1907-08 had reached 600, with more than 100 graduates that year. In the 1920's its enrollment was regularly over 1100, and so continued until the period of economic depression, when it declined sharply to 822 in 1935-36. It recovered rapidly thereafter, however, to 1021 in 1937-38 and to 1159 in 1941-42. The faculty of this School increased from 89 in 1923-24 to 100 in 1940-41.

The School of Engineering has developed over the years an extension program of considerable dimensions, its history reflecting the changing attitude of employers toward the whole idea of the necessity of education. At first, little encouragement was given to the representatives of the College who sought to impress sceptical employers with the desirability of training their men by enrolling them in classes for study in their leisure hours. The first engineering extension class was organized at Williamsport in 1910, when an evening class was inaugurated in cooperation with the training department of the local high school; and others followed. Practically all the courses were offered in connection with shop or local organizations. Extension work made gratifying progress under Supervisors J. A. Moyer and N. C. Miller until the First World War, when it suffered a decline. Since that time,

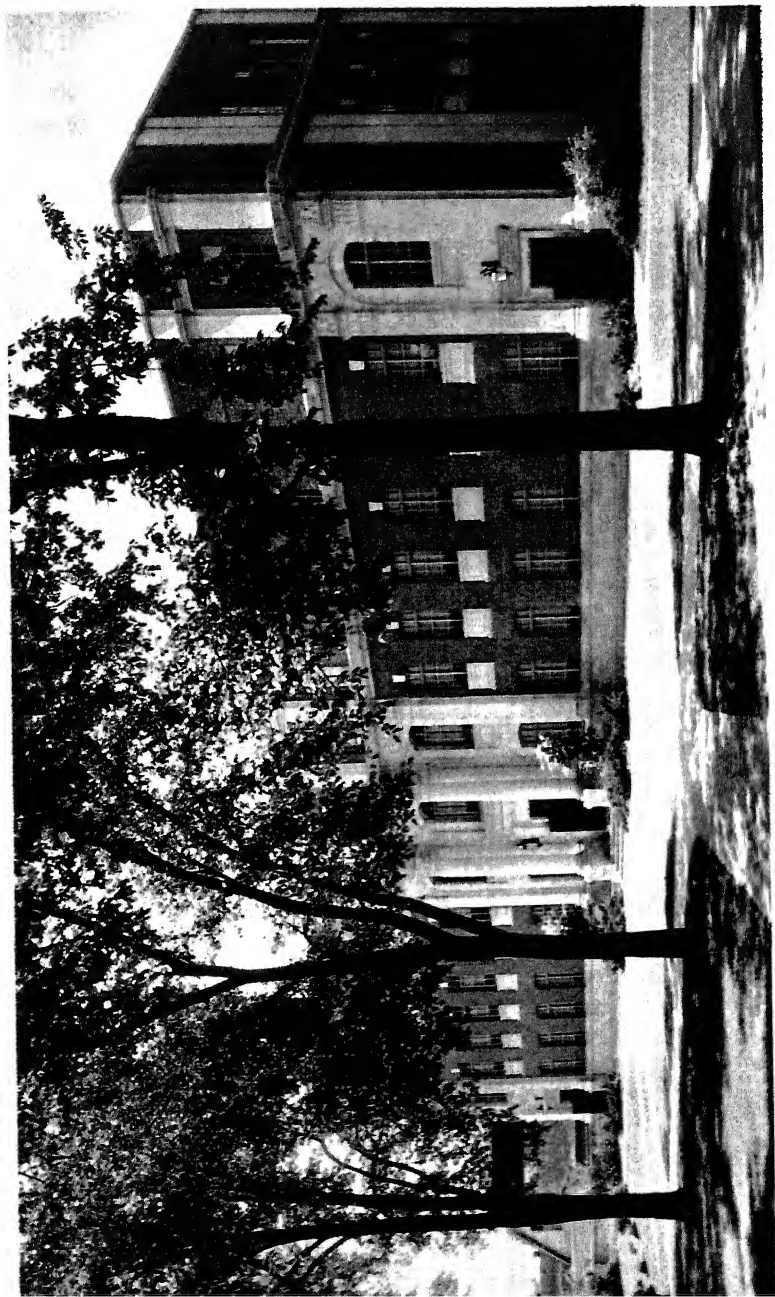
however, its growth has been rapid under the supervision of J. Orvis Keller, '13, and Edward L. Keller, '25.

Although individual members of the faculty of the School of Engineering pursued investigations on various problems from time to time, there appears to have been no organized research in this School prior to the establishment of the Engineering Experiment Station in 1908 "to render service to the industries by investigation and research along scientific and technical lines." Since no funds were provided for the employment of a staff, however, the Station was forced to restrict its activities at first to the publication of bulletins prepared by members of other departments of the School of Engineering. Not until 1936 was the Station given an independent status with a full-time head in the person of Professor F. G. Hechler. Previous to that time the Dean of the School had held the titles of Director of the Experiment Station and Director of Extension, along with that of Dean. Under the new procedure, Professor Hechler became the first head of the Station, and Professor E. L. Keller the first head of the Extension Division.

The Thermal Laboratory buildings, constructed in 1911 and later remodeled and enlarged into one, have served for more than thirty years as a laboratory for research in heat transfer of building and insulating materials and related subjects. Continuous research has been carried on in heat transmission, insulation, and measuring instruments adapted to the accurate determination of heat transfer. Many projects are supported by funds from industry, or supplied by a cooperating agency for a specific purpose. The results of such investigations are generally published in bulletins issued by the Engineering Experiment Station covering a wide field representing the varied interests of the staff. In Diesel engineering the facilities for instruction and research are unsur-

passed. This laboratory has for twenty years taken a leading part in the study of spray distribution and penetration in the Diesel engine, and in the development of methods and instruments for determining the performance of fuel injection pumps. Much time has been spent on the study of fuel for Diesel engines. The series of tests carried out in the Mechanical Engineering Laboratory to determine the performances of lubricating oils in automobile engines is thought to exceed in scope any tests of a similar type ever undertaken. In relation to the properties of oil, automobile engines are also being tested to determine engine wear, oil consumption, and carbon formation. Extensive research is being carried on in hydraulics and hydrology, soil mechanics, welding, and radio. The results of these investigations are made available to the public in papers presented before professional societies or published in technical and scientific journals.

Beginning with the construction of the small Mechanic Arts Building in 1886, and especially with the completion of Main Engineering Building in 1893, the School of Engineering has been supplied with buildings as the work expanded until now it occupies eleven buildings wholly, and two others in part. Despite the rapid growth of the School and the overcrowded condition in existing buildings, no additions were made to its plant until 1908, when a temporary frame structure (Engineering Unit F) was erected to relieve the congestion in classrooms and laboratories. Engineering Unit E was completed in 1913, and Engineering Unit D in the following year. The burning of Main Engineering Building on November 25, 1918, led to the erection of Engineering Units A, B, and C; and to the purchase of new equipment costing \$75,000 to replace that destroyed by the fire. The Mechanical Laboratory was constructed in 1921, and the new Main Engineering Building in 1929, to be followed a decade later by the Electric



THE MAIN ENGINEERING BUILDING

cal Engineering Building—the most imposing structure of the engineering group. The Civil Engineering Camp at Stone Valley was built in 1940.

The School of Engineering at The Pennsylvania State College has long maintained a high rank among the leading engineering schools of the country, and was never so well-equipped for carrying on its work as it is today. Its past is a proud record of achievement, its present is impressive, and its future is bright with promise.



*THE TECHNICAL
SCHOOLS, CONT.*

THE SCHOOL OF CHEMISTRY AND PHYSICS

ALTHOUGH the School of Chemistry and Physics, as at present constituted, dates only from 1924, its roots strike deep into the past. Its organized life really began with the creation of the School of Natural Science in 1896, but prior to this the departments of Chemistry and Physics had enjoyed a position of prestige in the curricula of the College. Chemistry, in particular, has been taught from the very beginning of the institution, receiving special attention by reason of its vital relation to agriculture as well as from the fortuitous circumstance that President Pugh was a specialist in agricultural chemistry and taught that subject during his term of office. In the first catalogue the chemistry course is described under the heads of General Chemistry, Practical Chemistry, and Agricultural Chemistry. Among the "Auxiliaries to Study" listed in the early catalogues were a chemical laboratory and collections of soils, marls, artificial manures, lime-stones, ores, and minerals for practice in analysis. In his plan for the organization of industrial colleges, Dr. Pugh called for a professor of pure chemistry and two assistants, and for a professor of chemistry and geology. His scheme contemplated also a professor of agricultural chemistry and geology; a professor of natural philosophy and astronomy, mechanics and physics; and a professor of natural

history. Although this comprehensive plan could not be carried out for many years, it is worthy of note that President Pugh anticipated practically all the scientific curricula later established in the College.

Upon the death of Dr. Pugh in 1864, the succeeding professor of chemistry and scientific agriculture was George C. Caldwell, whose title was later changed to "professor of general and applied chemistry." Other early professors of chemistry were: A. P. Stuart, A. A. Breneman, Hiram Collier, and Joseph T. Lovewell, the last three of whom also taught physics. In the eighteen-seventies, however, owing to the disposition of President Calder to place the main emphasis on classical studies, there was a tendency to neglect the development of instruction in chemistry and physics, as in the sciences generally. Nevertheless, it will be recalled that under the leadership of Professors Osmond, Smith, Buckhout, and Jordan, a reorganization of the curricula was effected in 1881, whereby the technical courses were restored to their proper place in the scheme of things. Professor C. Alfred Smith, '61, who was professor of chemistry from 1877 to 1882, did much to develop this department. Charles J. Bell succeeded him as professor of chemistry from 1882 to 1885; and was followed by Professor William H. Herrick, whose three-year term of service was not very happy or successful.

A turning point in the history of the Department of Chemistry was the coming of Professor George Gilbert Pond to the College in 1888, succeeding Professor Herrick. The work of Dr. Pond as professor of chemistry and Dean of the School of Natural Science is one of the great traditions of Penn State. After receiving the degrees of B.A. and M.A. from Amherst, he pursued graduate studies at Goettingen; and in 1889 Amherst conferred upon him the degree of Ph.D. For thirty-two years until his death in 1920, he "stamped his own

straightforward honesty and his vigorous personality" upon the thousands of students who came under his instruction. From the first, his ability was recognized and his personality was accepted as one of the assets of the College. As Dean of the School of Natural Science, he was an efficient administrator; and in an emergency he performed many of the duties of acting president of the institution. A strong, forceful character, he is justly honored as one of the outstanding figures in the history of Penn State.

Under Dr. Pond, the Department of Chemistry entered upon a career of progress that has continued down to the present time. When he came to the College the chemical laboratories were still in Old Main; but the Chemistry and Physics Building was in prospect, and in 1890 the department, with its one professor and two laboratories, was installed in the new building. Additional apparatus was ordered from Germany for carrying on the work more efficiently. The Chemistry and Physics Building was regarded at the time as spacious and complete in its appointments. An article published in *La Vie* in 1891 referred to such special features as "its splendidly lighted apartments, its perfect ventilation, and its excellent distribution of water, steam, and gas." The gas must have been especially welcome, since there had been none available in Old Main. It was claimed that but few institutions in the country then had facilities for teaching chemistry equal to those possessed by Penn State. In 1889 the department was strengthened by the addition to its staff of Franklin E. Tuttle as instructor of chemistry and mineralogy; later, he became professor of quantitative analysis. For two years William H. Walker, '90, was instructor in chemistry at Penn State; subsequently he had a distinguished career at the Massachusetts Institute of Technology, gaining renown in the fields of analytical chemistry and chemical engineering.

Under the able and inspiring leadership of Dr. Pond, the Department of Chemistry expanded rapidly to the point where it outgrew its quarters, but some relief was afforded by finishing the attic of the building for use as laboratories. Further space was secured by converting a part of the basement into a laboratory for organic chemistry. In 1907, when the Legislature appropriated \$70,000 for a new science building at Penn State "to relieve the overcrowded laboratories and lecture rooms," it looked as if Dr. Pond's dream of adequate facilities was about to be realized. This proved to be too fond a hope, however, since the Governor reduced the appropriation to \$20,000, thereby precluding the erection of the substantial structure that had been planned. With the amount in hand the Trustees authorized the construction of a temporary building designated as the Chemistry Annex, but which the students promptly dubbed the "Bull Pen." The Chemistry Department did not have the full use of this building, and within two years was calling loudly for additional space. The recurring theme in Dr. Pond's reports to the President was that of the need for more rooms for laboratories and lectures. Finally, however, one wing of a new chemical laboratory was erected in 1916, but even then the quarters of the department remained cramped for laboratory space. This necessitated the abbreviation of some courses to the lecture-demonstration type, especially those given to liberal arts students. The pressure for space was occasioned not so much by the needs of the department itself, for students specializing in chemistry, as by the fact that, as a service department, it gave instruction to practically all the students in the College.

Having sketched the history of the Chemistry Department from its origin to the time of the establishment of the School of Chemistry and Physics in 1924, let us now proceed in a similar manner to tell the story of the Department of

Physics in the same period, bearing in mind the close relation always existing between these two scientific studies. President Pugh's plan contemplated a professor of natural philosophy and astronomy, mechanics and physics—"a man familiar with all the recent extended investigations upon light, heat, electricity, and optics, an accomplished experimenter, and a good mathematician." Owing to lack of funds, however, no such many-talented professor was appointed during the incumbency of Dr. Pugh. Similarly, President Fraser, in his plan of reorganization proposed in 1866, provided for instruction in physics, which was linked with mathematics in one chair; but the financial distress of the College at the time was such that this chair remained vacant. In the catalogue of 1871 we find for the first time an instructor whose title included physics in the person of Professor A. A. Breneman, professor of agricultural chemistry and physics; and from this time may be dated the beginning of the story of physics at Penn State. In 1873 Professor Breneman was succeeded by Hiram Collier, who served for two years with the title of professor of chemistry and physics; and regularly thereafter physics became one of the courses offered by the College. A collection of apparatus was secured, and students were given two hours per week in laboratory work. Professor Collier was succeeded by Joseph T. Lovewell as professor of chemistry and physics to 1877, when C. Alfred Smith, '61, whose specialty was chemistry, taught physics also for two years until the coming of Professor Osmond.

Up to this time physics had been treated as a sort of step-sister of chemistry, the favored subject, and had not received the attention which the subject deserved; but now it came into its own. In 1879 the chair of chemistry and physics was divided, and Professor I. Thornton Osmond was appointed head of the Department of Physics—a position which he held

for eighteen years until his retirement in 1907. The story of the early development of this department is largely that of the work of Professor Osmond, who became Dean of the School of Mathematics and Physics upon its creation in 1896. Under Professor Osmond the course embraced general physics and practical physics, and much laboratory work was required. In 1893 M. M. Garver was added to the staff as assistant professor of physics, becoming associate professor in 1909 and serving in that capacity until 1925; when he became librarian of the School of Chemistry and Physics until his death in 1941. The rooms of the department, comprising a lecture-room, a physical workshop, and a photometric and optical room, were in the second story front of Old Main. The mechanical and physical apparatus was increased from year to year, but was never entirely adequate to the needs of the course.

In 1887-88 a course in electrotechnics was offered by the department, whose title was now changed to that of the Department of Physics and Electrotechnics. Attracting students from the start, the new course became increasingly popular as time passed. Several electrical companies donated apparatus needed for this phase of the work. When the curriculum in electrotechnics was inaugurated, it was stated in the catalogue that it was designed "to provide an advanced technical course for those who wish to become specialists in the field of electrical science, with its numerous and rapidly increasing applications in modern industries." Perhaps the recent installation of electric lights in Old Main had made the faculty and students electricity-conscious.

The Department of Physics expanded until it was crowded for space, but temporary relief came with the erection of the Chemistry and Physics Building in 1890. Hitherto, all the work had been carried on in the cramped quarters in Old

Main; but with the construction of the new building, the department was adequately provided with lecture rooms and laboratories for the time being, although the need for equipment was greater than ever. In 1890 Professor Osmond estimated that the apparatus available for his department amounted to not more than \$4000 in value, and that at least one-fourth of it was old and practically unusable; and stated that twice that amount was necessary for doing the work properly in physics alone, to say nothing of electrotechnics. Upon moving into the new building in 1890-91, the name of the department was changed to "Physics and Electrical Engineering," and the Executive Committee authorized the expenditure of \$1454 for electrical equipment. With the transfer of electrical engineering to the School of Engineering, this equipment and the lion's share of the students went with it.

The Department of Physics, recovering from this blow, continued to expand, however, and outgrew its accommodations, being housed "in scattered and inconvenient quarters." In 1910 President Sparks reported that "the recent development of the Department of Physics is a credit to the College; it should have the use of the entire building in which it is located." With the resignation of Professor Osmond in 1907, Dr. J. F. Meyer was appointed professor of physics; but served for only two years, when he was succeeded by Dr. W. R. Ham. Entering upon his duties in 1909, Dr. Ham remained head of the department until 1944. Under his guidance it developed into a strong and flourishing department. During the absence of Dean Pond for a year of study abroad in 1912-13, Dr. Ham served as acting dean of the School of Natural Science. Despite the fact that the work was hampered by lack of space and of equipment, Dean Pond reported in 1914 that it was "forceful, dignified, and scholarly." The attic above the main part of the Physics Building was sheathed and furnished

with skylights for use as a physical laboratory; and further space was provided in certain rooms in McAllister Hall. In 1923 the Department of Physics had two professors and sixteen instructors and assistants; and was offering 36 semester courses to 1224 students, besides carrying on some valuable research.

Such is the story of the departments of Chemistry and Physics prior to the establishment of the School of Chemistry and Physics—except for their larger relationships as members of certain Schools of the College for administrative purposes. When the work of the institution was reorganized by the Board of Trustees in 1896, the School of Natural Science was established, comprising the departments of Botany, Chemistry, Zoology, and Geology, with Dr. G. G. Pond as dean. At the same time the School of Mathematics and Physics was created, with Professor I. T. Osmond as dean. This type of organization continued until the retirement of Professor Osmond in 1907, following which the School of Mathematics and Physics was dissolved; whereupon physics was transferred to the School of Natural Science, and mathematics was added to the School of History, Political Science, and Philosophy. When the Department of Mining was reorganized as the School of Mines in 1906, geology was transferred to that School, where it has since remained; and, about the same time, botany was transferred to the School of Agriculture. Hence, from 1907 until its dissolution in 1924, the School of Natural Science embraced the departments of Chemistry, Physics, and Zoology.

Meanwhile, the Board of Trustees, in August 1923, appointed a committee, consisting of W. H. Walker, '90, J. Franklin Shields, '92, H. W. Mitchell, '90, C. W. Stoddart, and President J. M. Thomas, "to study conditions and submit recommendations for improvement of organization and work in the Natural Sciences and Chemistry"; Dean Sackett was

later added as an advisory member of the committee on questions involving chemical engineering. After serious consideration of the problems involved, the committee recommended that a School of Chemistry and Physics be established to take the place of the existing School of Natural Science; that the Department of Zoology be transferred to the School of Agriculture; and that the name of the curriculum of Industrial Chemistry be changed to "Chemical Engineering." The report was approved by the Board of Trustees, and went into effect promptly. Dr. C. W. Stoddart, Dean of the School of the Liberal Arts, who had been serving also as acting dean of the School of Natural Science since the death of Dean Pond in 1920, was continued as acting dean of the new School until the coming of Dean Wendt in 1925.

From the organization of the School of Chemistry and Physics in 1924 down to the present time, Grover C. Chandlee has been head of the Department of Chemistry, and W. R. Ham of the Department of Physics. The original curricula of the School consisted of Chemistry, Chemical Engineering, Physics, Pre-Medical, and Science; and, although important work is now being done in petroleum refining and in textile and household chemistry, the only full curriculum added in later years is Commercial Chemistry. Dr. Gerald L. Wendt served as Dean of the School from 1925 to 1928, when he became Assistant to the President in Charge of Research, and acting dean of the School of Chemistry and Physics pending the selection of his successor. Dr. Frank C. Whitmore succeeded him as dean in July 1929, and so continued down to the present day. Professor Donald S. Cryder is in charge of the Chemical Engineering curriculum, and Professor Merrill R. Fenske is director of the Division of Industrial Research. Dr. Pauline Beery Mack is director of the Ellen H. Richards Institute—a

research unit for investigation in the fields of food, clothing, and shelter.

When Dean Wendt assumed charge of the School of Chemistry and Physics, conditions were somewhat depressing because of the inadequate equipment for carrying on the work. Of the twenty-four members of the Chemistry Department only four had received the thorough training represented by the Ph.D. degree. Eight years had passed since the construction of the first wing of the Pond Memorial Laboratory, and the School was lacking in sufficient classrooms and laboratories to accommodate the growing number of students. The First World War had given an enormous impetus to the study of the sciences, and College enrollment in these subjects had greatly increased; but the prewar equipment of the School was antiquated, and it had not had a dean of its own since 1920. Meanwhile, there had developed not only a growing recognition of the importance of chemistry and physics as fundamental sciences underlying all other branches of technology, medicine, and biology in a scientific world that was moving forward rapidly; but there was also an increasing demand for highly trained chemists and physicists. Although the School of Chemistry and Physics (including its predecessor, the School of Natural Science) had behind it a long and honorable record of undergraduate achievement, it had at this time no prestige as a graduate group or as a producer of research. Penn State was not then included in the list of fourteen schools approved by the American Association of Chemical Engineers, since its Department of Chemical Engineering was not up to standard. Somewhat complacent about the work in chemistry and physics, the College administration received a considerable jolt when the real condition was revealed by Dean Wendt in his report of 1925. However, the School was on the eve of a renaissance which was to carry it forward at a

rapid pace and to give it a high standing throughout the country.

After the program of Dean Wendt had had a chance to gain headway, conditions began to improve rapidly. By the fall of 1926, new standards, which were to place the faculty on a par with those of the better universities, were adopted. The master's degree was now required of all candidates for appointment as graduate assistants; and the doctor's degree as a prerequisite to all faculty ranks, including that of instructor. Three members of the staff were given leave of absence to complete their work for the doctor's degree in 1925-26, and ten in 1926-27. The faculty was further strengthened by bringing in Dr. Wheeler P. Davey as professor of physical chemistry, and Dr. E. D. Ries as associate professor of chemical engineering. An Advisory Committee, composed of responsible men in the fields of chemistry and physics, was appointed to visit the School occasionally and to advise the Board of Trustees on internal conditions, especially with regard to proposed new policies. On July 4, 1927, the National Institute of Chemistry of the American Chemical Society convened at Penn State in the buildings of the School.

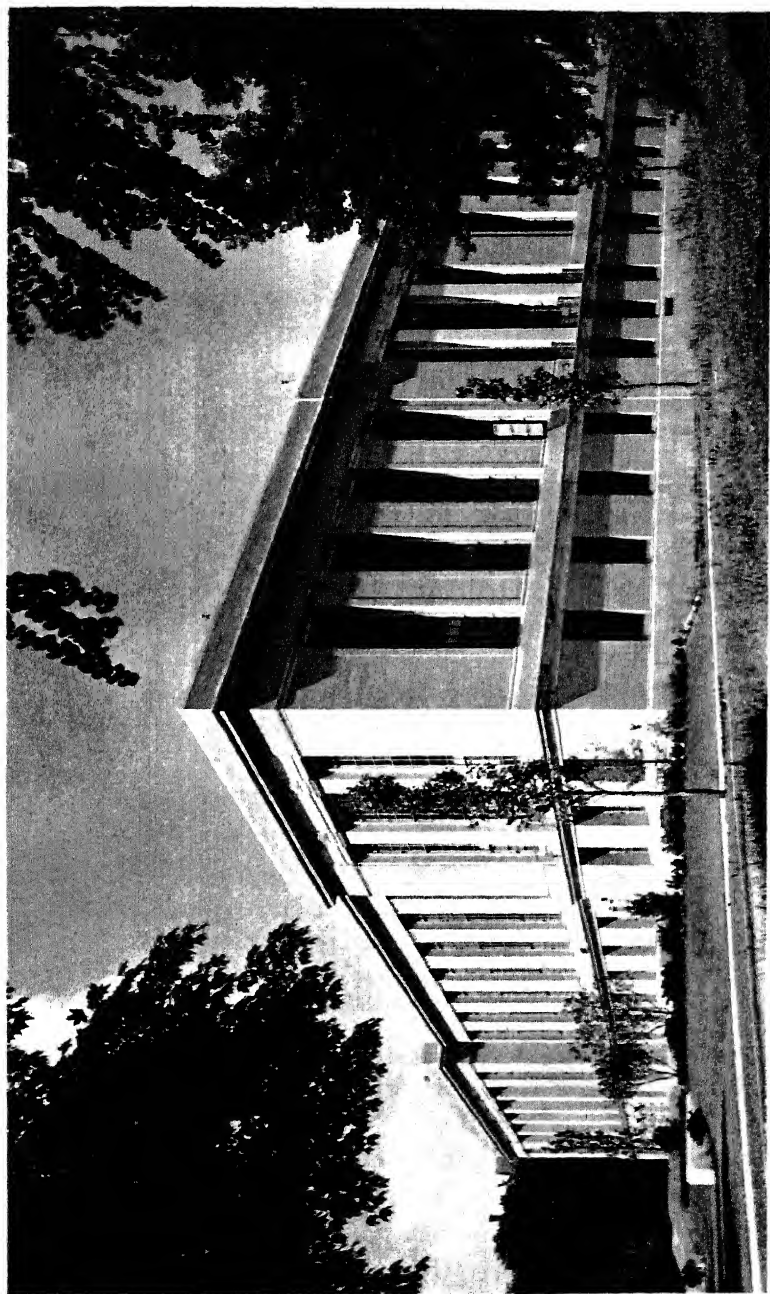
The movement begun by Dean Wendt was carried forward by Dean Whitmore, under whose administration the School of Chemistry and Physics has prospered. Advances have been made in chemical engineering, physical chemistry, and chemical physics, as well as in textile chemistry, library facilities, and physical science instruction for students in the Schools of Liberal Arts and Education. By 1937 there was an impressive record of new activities, such as amateur astronomy, cryogenic, microchemistry, organic research, petroleum refining, spectroscopy, and supersonics laboratories, each of which units was developed to the point where it was claimed to be superior in certain important respects to any other simi-

lar laboratory in the world. The petroleum refining laboratory in particular is without a competitor in the academic field, and is equalled by but few of the large industrial refining laboratories. Steady progress has also been made in the standard work in chemistry, chemical engineering, and pre-medical education. The development of the curriculum in Chemical Engineering resulted in its recognition and acceptance by the American Institute of Chemical Engineers, thereby removing a serious handicap previously existing.

The enrollment of the School increased steadily. In the 1890's and for the greater part of the ensuing decade, chemistry was, next to the various engineering curricula, the most popular curriculum in the College. There was, however, a decline in the Physics Department following the detachment of electrical engineering from that department, which did not immediately regain its former position. In the first year after its establishment, the School of Chemistry and Physics enrolled 358 students, but declined slightly in the ensuing three years. In 1928-29 the enrollment was 368, and thereafter the increase was continuous for some years, being 417 in 1929-30, 611 in 1934-35, and 751 in 1941-42. For many years the Pre-Medical curriculum was the most popular, but in recent times Chemical Engineering has attracted the greatest number of students. There has been, in fact, a definite shift toward larger numbers in the curricula of Chemistry and Chemical Engineering, reflecting the tendency of the times to recognize the importance of these subjects in our modern civilization. This School has long been a service school for other groups on the campus, giving regularly various elementary courses in chemistry and physics and related sciences to the entire undergraduate student body, numbering more than 6000 annually. In late years there has been a noteworthy increase in instruction in junior, senior, and graduate work, both as re-

gards the students enrolled in the School itself and those taking the service courses. This increase occurred despite the high standards which have long characterized this School. Its faculty now numbers 98 professors, instructors, and research assistants. In 1938 Dean Whitmore served a term as President of the American Chemical Association.

One of the most striking developments in the School of Chemistry and Physics, especially in the past decade, has been its accomplishments in research. Its potential usefulness to the industries is immense, but, like the School of Engineering, it has been discriminated against in the matter of appropriations by both the State and Federal Governments, despite the fact that the principal economic interest of Pennsylvania has long been manufacturing rather than agriculture. Hence a large part of the research of this School has necessarily been undertaken by hard-working professors in connection with advanced instruction, rather than as a part of a separately supported research program. In 1924, when research began to be given increased emphasis, a Division of Industrial Research was organized within the School of Chemistry and Physics to centralize service to the industries which render financial support; and to make possible the establishment of research fellowships directly supported by individuals or by corporations for the study of specific problems applicable to the industry concerned. The Division is designed to serve the industries of the State by placing at their disposal the specialized knowledge of the faculty and the facilities of the laboratories. A number of projects, supported by specific industries, were started promptly in this Division. By 1927 its work had so expanded that its budget for that year provided for the expenditure of more than \$16,000. Of particular significance is the investigation accomplished by Dr. M. R. Fenske's petroleum refining laboratory, and that conducted



THE PHYSICS BUILDING

by the Ellen H. Richards Institute in charge of Dr. Pauline Beery Mack, '32. In the Department of Physics also there has been marked progress in research in the past fifteen years. It has developed both its graduate and undergraduate courses in the newer types of physical science; and has instituted important investigations in such fields as electric emission, high-frequency sound, and Raman spectra, the last of which has received special recognition because of an outfit developed in 1933 by Dr. D. H. Rank and others connected with the Physics Department.

In the School of Chemistry and Physics, as in the other Schools of the College, the rapid increase in the enrollment continually produced problems with regard to buildings and equipment to accommodate the growing number of students. The original Chemistry and Physics Building, one of the oldest on the campus, was completed in 1890; but before long it was found to be inadequate to meet the needs of these departments, even when its attics and cellars had been converted into laboratories. Some relief was afforded by the erection of the Chemistry Annex, but the additional room thereby secured was soon exhausted and Dean Pond continued to call for more space. The construction of the first wing of the Pond Memorial Laboratory in 1917 furnished a crumb of comfort for the time being, although the increasing enrollment soon resulted in crowded conditions; hence it was not until 1929 that substantial relief was afforded by the Pond Memorial Laboratory Addition, erected at a cost of \$336,398. The "New Mining Building," dating from 1915, was turned over to the School of Chemistry and Physics and renamed the "Textile Chemistry Building." On December 29, 1938, the Chemistry Annex was burned, and much valuable equipment was destroyed. Finally, the needs of the School were met in large measure by the erection of the new Physics Building,

with wings devoted to chemistry, at a cost of \$1,109,045. The laboratories of the School are now located in five buildings, whose equipment for both instruction and research is unexcelled.

The School of Chemistry and Physics, with a strong faculty, a large student body, and splendid facilities for carrying on the work, stands very high in the educational world, with steadily increasing prestige. Its annual budget amounts to \$400,000, of which approximately \$270,000 is expended in instruction and \$130,000 in research.

THE SCHOOL OF MINERAL INDUSTRIES

From small beginnings the School of Mineral Industries has grown into one of the largest and most progressive to be found in the country. President Pugh was interested in mineralogy and geology, as evidenced in the early catalogues of the College by his title of professor of chemistry, scientific agriculture, mineralogy and geology; and by the fact that three of the eleven theses of the first graduating class were devoted to the discussion of mineral industry problems. It is also a matter of record that the State Mineralogical and Geological Collection in Harrisburg was transferred to The Farmers' High School in 1860 by act of Legislature. Dr. Pugh's plan contemplated a professor of metallurgy, mining, and mineralogy, and also a professor of agricultural chemistry and geology. Although Dr. Pugh was quite capable of teaching mineralogy, it does not appear that he actually did so; and, with his death, this subject disappears from the catalogues for many years. It is true that President Fraser's plan of reorganization called for a professor of metallurgy, mineralogy, and mining, but his program failed of realization and no such appointment was made. In the 1870's some attention was

paid to geology by Dr. Buckhout, though his main interest was botany. With the appointment of A. L. Ewing as professor of geology and zoology in 1882, the scope of instruction in geology was somewhat enlarged; but no advancement was made in these years toward the establishment of a department of mining.

Although its program was not put into effect immediately, the Executive Committee of the Board of Trustees, at its meeting in October 1890, appropriated \$4000 for the establishment of a Department of Mining. The new department was inaugurated in September 1893 under the headship of Dr. Magnus C. Ihlseng, the other instructors being H. H. Stoek and Thomas C. Hopkins. Courses were offered in mining, geology, and metallurgy, the differentiation of the course in mining engineering beginning with the junior year. In 1893 the Legislature made a special appropriation of \$16,000 for the establishment of this department, which may be said to have been created by legislative enactment. Nine students were enrolled the first year, but the number increased to twenty the following year; the growth was attributed mainly to the awakening of interest among miners and the mining profession throughout the State resulting from the publication of quarterly bulletins by the department. Two four-year curricula leading to the degree of B.S. in mining engineering were offered—one with a mining option, and the other with a metallurgical option. There was also a two-year course, and a twelve weeks' lecture course during the winter term. The four-year courses aimed to fit students for practical life in mining, metallurgy, or geology by combining practice and theory. The elementary short course was designed to accommodate those who were unable to take the full course; and gave instruction in mineralogy, mining, metallurgy, mechanical drafting, assaying, ore dressing and coal washing, and

mill construction. The lecture course was specially planned to meet the needs of miners and others who had had considerable experience but felt the need for a greater knowledge of the principles underlying the practice of mining. Summer sessions were held at the close of the spring term of the freshman, sophomore, and junior years; and were intended to give uninterrupted field practice such as could not be obtained during the regular session.

In 1896 the Department of Mining Engineering was enlarged to become the School of Mines, with Dr. Ihlseng as dean. At this time, also, the several collections in mineralogy, geology, lithology, and metallurgy were brought together from their hitherto widely separated quarters into adjoining rooms to improve the practicum facilities. The polyolith near the Armory was erected in 1897 as a long-range experiment in weathering. About 37 feet high and composed of 281 representative Pennsylvania building stones from 37 localities, it reveals at a glance the possibilities of artistic combinations. An unusual and colorful column, it is one of the many pleasing sights on the campus to attract the eye of the visitor.

In 1899 the State appropriation for the School of Mines was cut to \$8000. This resulted in a period of retrenchment, during which two of the four members of the staff were dropped, the School reverted to the status of a department, and Dr. Ihlseng resigned. In 1901 the vacancy thus caused was filled by the appointment of Dr. Marshman E. Wadsworth as head of the Department of Mining Engineering. At that time there were twenty-one students, or about the average enrollment for the preceding eight years. The department ranked only nineteenth among the mining schools of the country, was inadequately equipped, and was generally regarded as an interloper by the other departments of the College. Confronted by a rather gloomy situation, Dr. Wadsworth be-

stirred himself to make the department more attractive to students by the introduction of new courses deemed more suited to their needs and desires. The wisdom of this policy was soon demonstrated in the rapid increase in the enrollment and in the improvement of the standing of the department throughout the country. Within seven years it rose from nineteenth to fifth place among the mining schools of the United States, and was the largest in Pennsylvania. By 1904 its enrollment had increased to eighty-one.

In 1906 the Department of Mining was reorganized as the School of Mines and Metallurgy, with Dr. Wadsworth as dean. Meanwhile, the School had outgrown its quarters and its work was scattered over three buildings, but a measure of relief was forthcoming. The ancient pump house was moved upon a vacant spot of ground, on the site now occupied by the Power Plant, to make up the first unit of the "Old Mining Building," the cost being defrayed by a gift of \$5000 received from Andrew Carnegie. This two-story frame building was extended to the length of 270 feet and, such as it was, the School now had a home of its own. The number of students at this time was 114. In 1907 the Legislature appropriated \$20,000 to enlarge the mining building by adding 70,000 square feet of floor space to the existing temporary frame structure. The new wing, known as "mining extension," was begun in 1907 and was ready for occupancy in 1908. Beginning in 1906, six optional courses were offered—mining engineering, mining engineering geology, mining (economic) geology, metallurgy, metallurgical engineering, and assaying. In the spring of 1908 Dean Wadsworth tendered his resignation, to take effect September 1; and was succeeded by Dean Walter R. Crane, who served in this capacity until 1918.

Dean Crane proceeded to effect a reorganization of the School of Mines and Metallurgy. Certain courses of study

which had been found unsuitable were abandoned and new courses were substituted for them; and new curricula in Mining and in Metallurgical Engineering leading to the degree of B.S. were offered. Considerable new equipment was added, and a new drafting room was made available for the work in mining design. The title of the School was changed again to "School of Mines" to make it conform to that of most mining schools in the country. In 1924, however, it was renamed "School of Mines and Metallurgy": finally, in 1929, its title was changed to "School of Mineral Industries," by which it is now called. In the summer of 1911 a 100-foot tunnel was constructed for the dual purpose of carrying on mine rescue instruction and for conducting experiments dealing with mine ventilation. The first unit of a projected new mining building was erected in 1915 from a legislative appropriation of \$50,000 for this purpose; but it was later found to be unsuitably located for future development, and eventually became the headquarters for textile chemistry. This building, which went by the name of "New Mining Building," housed the mining museum and the geological and mineralogical collections until these were removed to the present Mineral Industries Building and were reassembled. Despite some advance under Dean Crane, the School of Mines and Metallurgy, always hampered by lack of funds, was unable to keep pace with the growth of industry and was in dire need of more modern equipment. Apparently discouraged by the unpromising outlook for the School, Dean Crane resigned in 1918. His successor was Dean Elwood S. Moore, who struggled along with the situation until 1922, when he in his turn resigned and was succeeded by Dean Elmer A. Holbrook.

In view of the difficulties under which the work was carried on, the School made considerable progress under Dean Holbrook. A step forward was taken in 1924 when a curricu-

lum in Ceramics was instituted, with Professor J. B. Shaw in charge. Because of the great activity in mining during the First World War and the consequent demand for mining engineers, there immediately followed several years of unusual growth in the mining schools of the country, accompanied by an increased demand for trained men; but by 1925 the situation had become normal. In 1926, as for several previous years, the enrollment was 165, and Dean Holbrook reported that the School of Mines and Metallurgy at Penn State was the largest east of the Mississippi, and the second largest in the United States. One of the features of progress in this period was the expansion of the Department of Metallurgy under the headship of Dr. D. F. McFarland, who was appointed to this position in 1920 and is still in charge. The development of the School along metallurgical lines is evidenced by the fact that in this era the enrollment in the various metallurgical courses equaled that in the purely mining courses. A further mark of progress was the growth of the Department of Geology into one of the leading service departments of the College. Though enrolling only 25 students specializing in geology in 1925, it gave instruction to more than 800, largely from other Schools of the institution. Upon the resignation of Dean Holbrook in 1927, Dr. D. F. McFarland served as acting dean during the session of 1927-28. In June 1928 the Trustees elected Edward Steidle, '11, dean of the School—a position which he still holds.

The history of the School of Mines and Metallurgy to this point shows that it had not received the support which it merited; and consequently had not been able to measure up to its opportunities for service to the people in the greatest mining State in the Union. It had had five deans in thirty-five years, and all of them are said to have severed their connection with the College because of the unpromising prospect for the

School. Through no fault of the deans, all of whom were capable men, it had failed to serve the Commonwealth in a manner commensurate with the needs of the situation, and the outlook was not bright. For many years the School had been housed in a temporary frame building located at one end of the campus. Neglected in appropriations and operating always on a small budget, there was no organized extension worth mentioning and but little research. The teaching equipment was antiquated: there was no School library, no instrument shop, no organized museum material, no summer camp in geology, and no attempt to hold industrial conferences.

After a survey of the situation and many conferences with mineral industries leaders throughout the State, Dean Steidle inaugurated a comprehensive program, the outcome of which was to revolutionize the procedures of the School and to bring it well to the front among the mining schools of the country. Advisory boards, composed of prominent executives, engineers, and scientists, were created; an appropriation of \$50,000 was secured from the Legislature for petroleum research; the curriculum of mining geology was changed to geology; and in 1929 the School of Mines and Metallurgy was renamed the "School of Mineral Industries." A unified plan of organization was adopted, which, when fully developed, embraced an extension division, an experiment station, and fields of work comprising the earth sciences, mineral economics, mineral engineering, and mineral technology; the departments of earth sciences, mining, petroleum and natural gas, fuel technology, metallurgy, and ceramics; and a museum, art gallery, library, core depository, stock room, and instrument shop. The first two years are common to all the curricula and are devoted to the study of the fundamentals, such as chemistry, physics, mathematics, English, and humanistic subjects. Upon the completion of this preliminary training, the student

enters into the more technical studies and the laboratories, where he is instructed in the special lines of work which he expects to follow after graduation. Beginning with the junior year, the School offers six options leading to the degree of B.S.

The original department of the School of Mineral Industries was designated as Mining Engineering and Geology, of which Deans Ihlseng and Wadsworth served successively as heads until 1907-08, when a reorganization was effected under Dean Crane. The dean remained as head of the Department of Mining, but geology became a separate department and the new Department of Metallurgy was created. The Department of Mining, under the supervision of Dean Crane from 1908 to 1918, became detached from the dean's immediate charge with the coming of Professor William R. Chedsey, who served as head of the department from 1919 to 1938, when he was succeeded by Professor David R. Mitchell. Meanwhile, the Department of Metallurgy, beginning its separate existence in 1907-08, grew rapidly to an important position under the headship of Professors C. P. Linville, Charles E. McQuigg, and David F. McFarland. Dr. McFarland is particularly associated with the development of this department as its head and as professor of metallurgy since 1920.

Geology began its separate existence as a department under Dr. E. S. Moore, who became professor of geology and mineralogy in 1909 and continued to serve in that capacity until 1921; in 1923 he was succeeded by Professor C. A. Bonine, the present head. This department has undergone considerable reorganization and expansion, besides being one of the mother departments of the School from which sprang the departments of Ceramics and Petroleum and Gas Engineering. Prior to 1928, it went by the name of Mining Geology; but in that year, as a result of the changing demands of indus-

try, it was remodeled and the word "Mining" was dropped from its title. In 1941-42 it became the Department of Earth Sciences, embracing geology, geography, geophysics, and meteorology. The Department of Ceramics established in 1923-24 under the headship of Professor J. B. Shaw, received a new impetus with the appointment of Dr. N. W. Taylor, head of the department since 1933. Meanwhile, the increasing interest in the search for petroleum and natural gas caused by the First World War and by the rapid development of the automobile industry, led to a change of emphasis from mining geology to petroleum geology. Hence courses in petroleum geology and valuation were added to the geological curriculum in 1923. The legislative appropriation of 1929 resulted in the establishment of a separate unit with its own budget within the department of geology in 1930-31; and in 1936 it was given the status of a department designated as Petroleum and Natural Gas Engineering, under the headship of Professor S. J. Pirson.

In 1932 the Department of Fuel Technology was established, with Dr. A. W. Gauger in charge. This curriculum had its beginnings as far back as 1893, when coal washing was offered as a subject in mining engineering; and advanced a step farther in 1908, when a course was given in the mechanical preparation of coals and the dressing of ores. In 1930-31 an option in fuel technology was introduced as a part of the curriculum in Metallurgy, but it was not until 1932 that a separate curriculum was established; it was the only general program in this subject offered in the United States. The curriculum has registered progress since its inception, Dr. Gauger continuing as its head to the present time.

In recent years there has been considerable expansion in the extension work of the School of Mineral Industries. The first mining extension classes were inaugurated in 1893-94,

and fair progress was being made until a cut in the legislative appropriation of 1899 led to the discontinuance of the work for lack of funds. A new start was made in 1908, and for several years extension work was carried on in the mining districts; but, financial support being lacking, it was again discontinued in 1912. In 1919, mining extension was reorganized in connection with the State Department of Public Instruction, and Smith-Hughes funds were made available for its use. It was not until 1931, however, that the work was established firmly with the appointment of H. B. Northrup as Director of Mineral Industries Extension. A cooperative agreement was entered into with the State Departments of Public Instruction, Mines, and Labor and Industry, for the promotion of an effective extension program; and since that time the Mineral Industries Extension Division has had a career of progress.

The development of research on a large scale in the School of Mineral Industries is of comparatively recent origin. Although investigations in this field began almost with the founding of the College because of the interest of President Pugh in this type of work, such research lapsed after his death and was not renewed for many years. Between 1896 and 1900 the School of Mines distributed four bulletins prepared by Professor Thomas C. Hopkins, giving the results of his studies in clays and other minerals. In 1924 Dean Moore published as *Bulletin M-3* of the Topographic and Geologic Survey the results of his research in the silica refractories of Pennsylvania; and in 1927 Professor A. P. Honess published his *Nature, Origin and Interpretation of the Etch Figures on Crystals*. In 1928 Professor J. B. Shaw published as *Bulletin M-10* his investigation of the properties of fire clays. Professor F. C. Swartz contributed to the U. S. Geological Survey a paper entitled *The Helderberg Group of Parts of Virginia and West Virginia*. Prior to 1929, however, most of the research

of the School of Mineral Industries was supported by instructional funds or by funds contributed by the industries, and there was no organized research in this School. In 1929 a special legislative appropriation providing funds for research was the first recognition of the need for an active research program dealing with the mineral industries in Pennsylvania.

Meanwhile, the Mineral Industries Experiment Station had been established in 1919, but lack of funds with which to maintain the Station so crippled its work that all research was abandoned for some years. Research through the medium of the Experiment Station was negligible before 1931, but in that year the station was made an active agency of the School by reason of a regular College appropriation to further its work. Dr. A. W. Gauger was appointed Director of Research, and additional funds became available. In 1932 legislative aid was granted for the work of the Experiment Station, and at the same time industry made its first research grant to the School. This was followed by other grants from various industries—a practice that has since continued, furnishing grants totaling \$375,000 for research purposes in the School of Mineral Industries.

A new departure was made in 1935, when there began a plan of cooperative endeavor between the State and industry whereby a legislative appropriation of \$50,000 was made for the biennium, contingent upon the receipt of an equal sum from industry; and this plan has been followed in each succeeding biennium. In 1939 the Experiment Station entered into a cooperative research program with the anthracite and bituminous coal industries of Pennsylvania, under the supervision of the Secretary of Mines of the Commonwealth. The School has cooperated also with other State agencies, such as the Departments of Welfare, Commerce, Labor and Industry, Highways, and Internal Affairs.




THE MINERAL INDUSTRIES BUILDING

Approximately seventy different research projects are under investigation in this School at the present time; most of them are highly scientific, while others have direct application to the various industries. Among these are studies in mineral economics and economic geography, oil and gas production, preparation and processing of coals, metallurgical studies, and ceramic research. The results of investigations are disseminated to the public through bulletins, information circulars, technical papers, and informal lectures by members of the staff.

Prior to the entrance of the United States into the Second World War, there had been for some years a rapid increase in the enrollment of the School of Mineral Industries, and a corresponding increase in its faculty. Except for the depression years of the 1930's, the number of students increased steadily from 192 in 1927-28 to 425 in 1941-42; and, in the same period, the faculty increased from 14 to 60. In 1930 the School began the custom of holding annual industrial conferences and research meetings as an integral part of its program.

Long inadequately housed in an unsightly frame building, the School of Mineral Industries in September 1930 moved into its new building located on a commanding site on the campus. This large and handsome structure, to which important additions were later made, is well-equipped throughout with every facility for carrying on the work efficiently. It contains not only the offices, classrooms, and laboratories devoted to instruction, but also an instrument shop, a museum, and an art gallery. In 1931 the Museum was reorganized, and the Art Gallery was established. In 1935 new exhibits were added to the Mineral Industries Museum, the only one in Pennsylvania, and Professor C. W. Robinson was appointed curator. The Mineral Industries Art Gallery, the only one in the world, was formally opened April 11, 1942. The paintings,

to the number of 105 and all of them originals, include scenes representing every phase of the coal, oil, natural gas, and other mineral industries. Like the Museum, it is one of the show places on the campus, much admired by visitors. In 1937 the Mineral Industries Camp in Big Stone Valley was completed, thereby providing excellent quarters for the conduct of summer courses. With its able faculty, its growing student enrollment, its fine building, and its splendid facilities, the School of Mineral Industries now ranks among the largest and best in the country, and its future is bright with promise.



*THE NON-TECHNICAL
SCHOOLS*

THE SCHOOL OF THE LIBERAL ARTS

THE STORY of the liberal arts at The Pennsylvania State College resembles that of other land-grant institutions in that for many years the more purely cultural courses of study were relegated to an inferior position, and were compelled to struggle for recognition. Inasmuch as the College originated as an industrial institution, there was inherent in the situation a tendency to crowd the humanities out of the curriculum. This initial drawback dogged the footsteps of the liberal arts from the beginning; and, even after the School of the Liberal Arts was established, it was treated for some years as a stepsister rather than given equal rights within the family circle of the Schools of the College. It is only within comparatively recent times that it has won full recognition, practically as well as theoretically. Emerging at length from its early obscurity into its present dignified position, it enjoys increasing prestige on the campus and throughout the country. Having once struck its stride, it advanced rapidly to the position of the largest School in the institution.

Although no such chairs were established in his time, President Pugh's plan proposed the establishment of professorships in English language and literature and in modern languages. President Fraser also recognized the value of liberal studies in an industrial college and would have given

them a larger place in the curriculum had he been able to carry out his purpose. President Burrowes, however, was not in sympathy with broadening the scope of the College beyond that of a purely agricultural school, and did nothing to further the study of the humanities. President Calder, on the other hand, went to the opposite extreme of placing an undue emphasis on classical studies to the comparative neglect of technical subjects. Since this policy aroused much criticism, a movement was started to reorganize the curriculum with a view to restoring the technical courses to their former preferred position. Throughout the period of experiment with liberal subjects from 1859 to 1896, instruction was given regularly in English as an essential subject, and some attention was paid to the study of French and German. Latin was generally taught and Greek was offered for a time, but the only liberal subject consistently in the curriculum was English. Mathematics, being closely related to the sciences, was always included as a study. The first chair to be established in the liberal arts was that of English and rhetoric in 1889, in charge of Professor Edgar F. Davis. In brief, it may be said that, while at all times some attention was paid to one or more liberal subjects, these received but scant recognition from the College administration (except under Dr. Calder) prior to 1896, and then as frankly secondary to technical subjects.

President Atherton was fully convinced of the desirability of enlarging the scope of instruction, but it was not deemed expedient to stress the humanities for the time being. Nevertheless, the number of liberal courses was gradually increased, especially because of the growing demand for them on the part of the students. The General Science Course and the Latin-Scientific Course embraced principally cultural subjects from 1882 to 1896, but the emphasis during this entire period

continued to be placed on technical subjects in the proportion of about four to one. Meanwhile, President Atherton discovered that a growing number of students elected liberal arts subjects, whereas several of the technical courses, particularly agriculture, attracted very few students. At heart, he had always been desirous of incorporating a larger proportion of liberal studies than had been offered heretofore, but had been compelled to bide his time until the Trustees and the public could be educated to this point of view. As we have seen in an earlier chapter, he proceeded cautiously in the matter, first developing the mechanic arts on a plane equal to agriculture and then exerting himself to enlarge the work in the humanities. He was persuaded that a knowledge of liberal studies was not only of value in itself, but was desirable for technical students also, since without it they would be at a disadvantage when once they were out in the world pursuing their profession. The Morrill Act, supplanting the original charter of 1855, gave full authorization for developing liberal studies in the College, along with agriculture and the mechanic arts.

Throughout 1895 consideration was given by President Atherton and the faculty to the matter of a reorganization of the work of the College, with regard to both administration and curricula. The outcome of these deliberations was the creation by the Board of Trustees in January 1906 of seven Schools, with a dean at the head of each School. As regards the liberal arts, this scheme established two Schools—the School of Language and Literature, embracing ancient and modern foreign languages and the English language, with Dr. Benjamin Gill as dean; and the School of History, Political Science, and Philosophy, with Dr. Atherton as acting dean. The foregoing organization, though not too happily conceived, gave considerable impetus to the study of the humanities and

may be regarded as a long step in the right direction. Unfortunately, however, no building was erected to house the new Schools, which were woefully lacking in facilities for carrying on their work. This division of administrative functions continued throughout the remainder of President Atherton's term and into the beginning of that of President Sparks, for a period of thirteen years.

Experience having proved that the arrangement for liberal studies, besides being unwieldy, did not accord fully with the views of the two faculties concerned, these united in a petition to the Trustees that the two Schools be combined into one under the title of "School of the Liberal Arts." On March 22, 1909, the petition was acted upon favorably by the Board, and Dr. Sparks was named acting dean of the new School. From this time may be dated the significant development of the humanities at Penn State. Going into full operation in the session of 1909-10, the School of the Liberal Arts began its career with 48 instructors and 46 students. The large number of instructors in relation to the small number of students specializing in the liberal arts is explained by the fact that then, as throughout most of its history, this School was largely a service School for all the students in the College. In 1910 Dr. S. E. Weber was appointed Dean of the School of the Liberal Arts and Director of the Summer Session for Teachers. Although handicapped by the lack of suitable quarters, a School solidarity and esprit de corps was developed under Dean Weber, who was a capable administrator. During his administration of four years, the Pre-Legal curriculum was established in 1911 and that of Commerce and Finance in 1913, the faculty of the School was increased from 48 to 62, the student enrollment from 46 to 112; and the salary schedule was somewhat improved. Public lectures were given on the campus, first by members of the English Department and later under

the auspices of the School; out of this grew the Liberal Arts Lectures—a series delivered annually since 1911. Dr. Weber was responsible for the establishment of the first new department to be created in the School—that of Education and Psychology, whose special function was teacher training. Upon the resignation of Dr. Weber in 1914, Dr. Arthur Holmes, Dean of the General Faculty, served as acting dean of the School of the Liberal Arts for one year, following which Dr. Thomas C. Blaisdell was appointed dean.

During the administration of Dean Blaisdell, who served from 1915 to 1920, the School developed rapidly, its faculty increasing from 65 to 83, and its student body from 112 to 420. With the erection of the first wing of the Liberal Arts Building in 1916, it at last had a home of its own. Although inadequate to meet the needs of the situation, it at least gave to four of the ten existing departments accommodations for their work, the others being scattered here and there over the campus. During 1915-16 the Department of Music was transferred to this School, where it has continued its prosperous career down to the present time. In this period the School of the Liberal Arts grew faster than any other School in the College; and, since it was the principal service School of the institution, taught more students than any other.

With the appointment of Dr. Charles W. Stoddart, who became dean in 1920 and is still in charge, began a strong forward movement in the School of the Liberal Arts, which has registered consistent progress to the present time. Many changes have taken place looking to greater efficiency in administration and instruction. When the School was created in 1909, it embraced all the liberal or non-technical subjects in the College curriculum. Its various four-year courses led to the degree of Bachelor of Arts, and were designed to meet the needs of those who sought a general college education, either

from the viewpoint of culture or as a preliminary to one of the learned professions. These courses also served those who sought both a cultural and a technical education, the majority of the students in them being from the technical Schools of the College. In 1909 there were five curricula—Classical, History and Political Science, Mathematics, Modern Languages, and Philosophy and Education. Representative professors at the time were Gill, Willard, Pattee, Runkle, Stecker, Tudor, Foster, Fehr, Ray, and Espenshade. In 1920, when Dr. Stoddart became dean, there were six curricula—Classical, Commerce and Finance, Education and Psychology, Modern Languages, Mathematics, and History and Political Science, each of which led to the degree of Bachelor of Arts.

In 1923 the work was consolidated and organized into four groups, consisting of Arts and Letters (with nine options), Commerce and Finance, Pre-Legal, and Teacher Training, the Classical and Mathematics curricula being dropped. However, with the transfer in 1923 of the Teacher Training (education and psychology) curriculum to the newly created School of Education, the curricula in the School of the Liberal Arts were reduced to three—Arts and Letters, Commerce and Finance, and Pre-Legal. When the Pre-Legal curriculum was dropped in 1927, the curricula remaining embraced only Arts and Letters and Commerce and Finance. In 1930 Journalism was added as a third curriculum, and such the curricula have remained to the present time. These have met the situation admirably, attracting large numbers of students in their several courses and affording every type of training likely to be sought in a liberal education. Hence, along with the ideal of a broad cultural education, opportunity is afforded to prepare for future occupations by offering major group studies. This system, inaugurated in 1927, provides for general training, intensive specialization, art, pre-legal, public service, religious,

and writing as options for the ambitious student seeking special training for his vocation. The curriculum in Commerce and Finance, designed for those who intend to enter business, has long been one of the most popular in the College. The curriculum in Journalism, intended for those who plan to enter the newspaper profession, to write for popular and technical magazines, or to enter the field of periodical advertising, has developed successfully from the beginning. Inasmuch as all these curricula are widely popular, the offerings of the School of the Liberal Arts have become well stabilized, and there appears to be no reason for effecting changes in the near future by additions or subtractions.

Resident instruction has always been the principal function of the School of the Liberal Arts. Although extension and research have made marked progress in recent years, the major activities of the faculty in this School have been directed to teaching its own students and to performing the duty of a service School for the College at large. The work is administered by Dean Charles W. Stoddart, Assistant Dean C. C. Wagner, '25, and David B. Pugh, Director of Arts and Science Extension; and by the heads of the thirteen departments into which the School is divided for administrative purposes. The six original departments have in some instances been divided, and new ones have been added. The Department of Classical Languages has continued to give courses in Greek and Latin under the headship of Professors Benjamin Gill, W. D. Crockett, and R. E. Dengler. Professors Carl D. Fehr, Lucretia V. T. Simmons, F. W. Pierce, and P. A. Shelley, '29, have administered the German Department; and Professors I. L. Foster and F. M. du Mont have been in charge of the Department of Romance Languages. The large Department of Mathematics has been under the direction of Professors J. M. Willard and F. W. Owens.

The Department of English long had as its head Professor Fred L. Pattee, who was succeeded by Dr. William S. Dye, Jr. Always an important department with a large number of instructors and students, it embraced not only the work in English and American literature, but also English composition, public speaking, journalism, and dramatics. Becoming unwieldy, it was divided in 1928 into the Department of English Literature (including American literature and dramatics), under the care of W. S. Dye, Jr.; and the Department of English Composition and Journalism, with A. H. Espenshade as head. Dramatics later developed to the point where it was made a separate division, with A. C. Cloetingh in charge. Upon the retirement of Professor Espenshade in 1937, T. J. Gates, '21, succeeded him as head of the Department of English Composition, from which Journalism had been taken in 1929 and erected into a separate department. The Department of Journalism was at first administered by W. F. Gibbons as acting head and later by F. C. Banner as head, under whom it expanded rapidly. In 1940 the Division of Speech was taken from the Department of English Composition and organized into a separate department under the direction of J. H. Frizzell, '12.

With the creation of the School of the Liberal Arts, the Department of History and Political Science played an important part under the headship of Professors P. O. Ray, G. F. Zook, and A. E. Martin. It expanded into the Department of History, Political Science, and Economics; but growing cumbersome because of the diversified nature of its work and the large number of its students, it was divided in 1923 into the Department of History and Political Science, with A. E. Martin as head; and the Department of Economics and Sociology, with O. F. Boucke as head. Dr. Carl W. Hasek succeeded Dr. Boucke as head of the last-named department,

which is one of the largest in the College. In 1938 it established a Business Survey that publishes monthly a mimeographed analysis of business conditions in Pennsylvania, which is in active demand. In 1940 the Department of History and Political Science was divided into the separate departments of History, with Dr. A. E. Martin as head; and Political Science, with Dr. Jacob Tanger as head. Within the Department of Economics, Sociology was given the status of a Division, with Professor Kingsley Davis in charge.

In 1915 Music, which had functioned as an independent unit hitherto, was made a department in the School of the Liberal Arts, under the direction of Professor C. C. Robinson. Upon the resignation of Professor Robinson in 1922, R. W. Grant became head of the department until 1941, when he was succeeded by Hummel Fishburn, '22. Music has developed into a flourishing department; and it may also be noted that the College Choir, the College Glee Club, the Orchestra, and the Blue Band have acquired a reputation for successful performance. Finally, when the Department of Education and Psychology, which had been in the School of the Liberal Arts since 1910, was transferred to the School of Education in 1923, the Department of Philosophy was established under the headship of Dr. E. W. Runkle, who was succeeded in 1935 by Dr. R. H. Dotterer.

In 1934 the School of the Liberal Arts underwent a radical reorganization. The existing departments were retained, but specific subject-matter fields within them were arranged in divisions placed under division heads. The most sweeping change effected at this time, however, was the establishment of the Lower Division. The work of the School was divided into a Lower Division and an Upper Division, with general training in the former and specific training in the latter. The idea was to furnish a terminating point at the end of two

years for those students who either did not wish to go farther, or were not intellectually qualified to do so. The School of Education wanted to go on a professional basis, and to have those who entered that School receive a general cultural education. Therefore the two Schools cooperated in the establishment of the two Divisions, the Lower Division furnishing the foundation work for both Schools. At the end of two years the students have their choice of entering the School of Education or the School of the Liberal Arts to complete their training for their expected occupations. Upon satisfactory completion of the work in the Lower Division, the student receives a certificate. Admission to the Upper Division is granted by special committees in both Schools; and the requirements are such that only properly qualified students may continue for their degree. Prerequisites for admission into the Upper Division of the School of the Liberal Arts are: proficiency in the use of English, the possession of a Lower Division Certificate, and the completion of a specified number of grade points. Noteworthy improvement of students in the use of English has resulted from this plan; poorly prepared students, as determined by placement tests given during Freshman Week, are required to take a remedial course in English composition. A further effect has been to raise the standard for the degree of Bachelor of Arts.

Another significant development in this School was the establishment in 1936 of the Institute of Local Government, under the direction of Dr. H. F. Alderfer as Executive Secretary. Although not confined wholly to the School of the Liberal Arts, the Institute was set up in this School for administrative purposes. Cooperating with a number of departments and organizations of the College, it seeks to train students for a career in public administration through the public service undergraduate major in the School of the Lib-

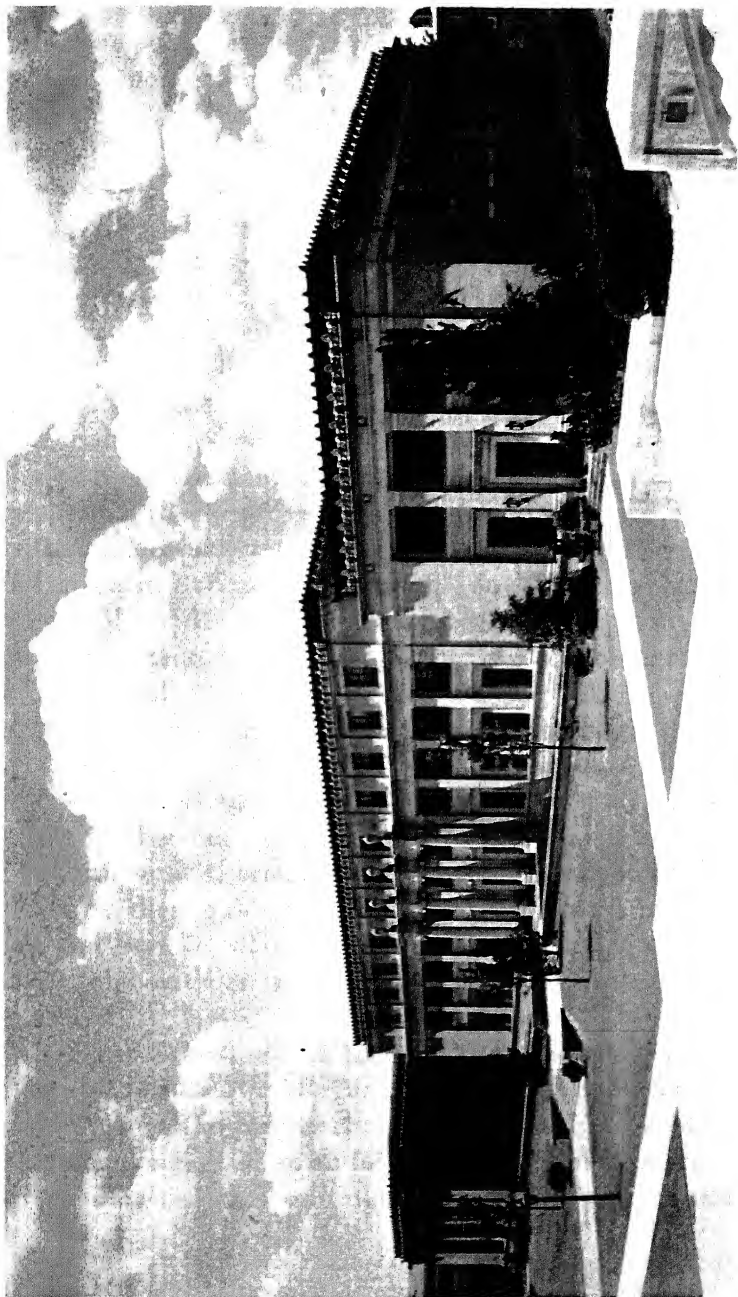
eral Arts; to serve local public officials of the Commonwealth by means of information, bulletins, and meetings; and to conduct research in Pennsylvania local government. It is becoming increasingly linked with the governmental agencies of Pennsylvania, and already has a long series of accomplishments to its credit.

As a service School, the School of the Liberal Arts has always done an enormous amount of work for students enrolled in the other Schools of the College. For many years its instructors devoted much the larger part of their time to this effort. In 1916 Dean Blaisdell reported that eighty per cent of the work of this School was with technical students, and in 1924 Dean Stoddart estimated it at seventy per cent. Normally, every student on the campus takes at least two or three courses in Liberal Arts. In recent years several of the deans of the technical Schools have become convinced of the desirability of a broad cultural training for the men in the technical professions, and have displayed a tendency to encourage their students to take more work in the humanities than was formerly the case. The number of students majoring in Liberal Arts has increased so rapidly that in 1940 President Hetzel reported that "the teaching time of the faculty of this School is divided about equally between the service to its own students and to those in other Schools."

Since in the School of the Liberal Arts the emphasis has always been placed on teaching rather than on extension and research, no special effort was made to develop the latter until comparatively recent times. Approved by the Board of Trustees in 1933, Arts and Science Extension developed somewhat slowly at first but has expanded considerably in late years under the guidance of David B. Pugh. Through this Division the resident staffs of the School of the Liberal Arts and of the School of Chemistry and Physics contribute to the

extension services of the College, although the extension work of the latter School has been but slightly developed as yet. Besides the Undergraduate Centers in the several cities, these services include extramural classes, correspondence teaching, lecture courses, training in dramatics, and participation in the activities of various Pennsylvania organizations. The extension service is particularly well developed in dramatics, music, and speech correction.

In late years research in the School of the Liberal Arts has increased steadily in amount, quality, and importance. A great drawback to research in this School has always been the lack of funds for its encouragement. There is a growing feeling, however, that investigation in the social sciences in particular is no less important to the general welfare than that in the physical sciences. There is something to be said for Pope's dictum that "The noblest study of mankind is man." Except in rare instances, however, this work has been pursued upon the initiative of the individual professors, on their own time and at their own expense. Some of these projects are financed to a limited expense by the modest funds placed by the College at the disposal of the Council on Research. The first officially recognized research in this School dates from 1941, when the Bureau of Business Research was established under the direction of Dr. C. W. Hasek. The Bureau conducts investigations bearing directly upon the problems of business with reference to the manufacture, use, distribution, and financing of manufactured products. The Institute of Local Government has conducted research independently and in cooperation with other Pennsylvania institutions. The addition of a research assistant to the staff of the Institute in 1941 was a great stimulus to investigation in governmental problems. Many members of the Liberal Arts



SPARKS BUILDING
The Liberal Arts

faculty have published books and articles in increasing numbers based upon extended research in their several fields.

The growth of the School of the Liberal Arts has been remarkable, especially in the past two decades. Beginning with 46 students in 1910, it enrolled 420 in 1920-21, 1007 in 1930-31, and 1610 in 1940-41. By 1934 it had become the largest School in the College—a position it has maintained consistently since that time. From the initial number of 48 in 1910, the faculty increased to 81 in 1919-20, to 113 in 1934-35, and to 155 in 1940-41. The School was long handicapped by reason of its low salary schedule. While all the Schools of the College experienced a like difficulty, this School was the worst sufferer of any of them. Within the past twenty years, however, the inequalities hitherto prevailing have been largely overcome, with the result that not only has the salary scale been adjusted upward, but the professorial requirements in the employment of faculty members have been raised. Many outstanding professors of the early days of the School served the College faithfully and well, while receiving salaries wholly disproportionate to their worth; and the same may be said of many who are still with us, but whose tenure dates back to the day of small things. The Liberal Arts faculty of the present time is able and efficient, and is performing a notable work of instruction, besides adding to the prestige of the institution by their published works; but the list of those, like Pattee and Boucke, who have reached distinction as scholars, teachers, and authors is too long to be incorporated in this text.

When the School of the Liberal Arts was established, it had no home of its own. Regarded for many years as a poor relation of the subsidized technical Schools of the College, it was for a time relegated to an inferior position with no regular quarters. This situation continued, with the School scattered

all over the campus, until 1916, when the South Wing of its building was erected. Although this was wholly inadequate to meet existing needs, it was at least a beginning. Most of the Liberal Arts classes continued to be held here and there over the campus wherever a vacant lecture room could be found, the faculty getting much fresh air and exercise going to and from classes. This situation lasted until the erection of the North Wing of the Liberal Arts Building in 1930 relieved the pressure somewhat, though still inadequately. Finally, in 1939 the large Central Unit was built connecting the North and South Wings. The completed structure, named the Sparks Building in honor of President Sparks, is spacious, handsome, and imposing, and occupies a commanding central position on the campus. With its offices, lecture rooms, and two large assembly halls, it is well-equipped throughout and admirably adapted to the needs of the School. Except for Journalism and Music, which were given quarters in Carnegie Hall, it houses all the Liberal Arts departments. Such has been the growth of the School, however, that it is still found necessary to conduct some of its classes in the lecture rooms of other Schools of the College. Already strongly established and growing rapidly in numbers, quality of service, and prestige, the School of the Liberal Arts may be expected to play an increasingly important role in the life of the institution.

SCHOOL OF EDUCATION

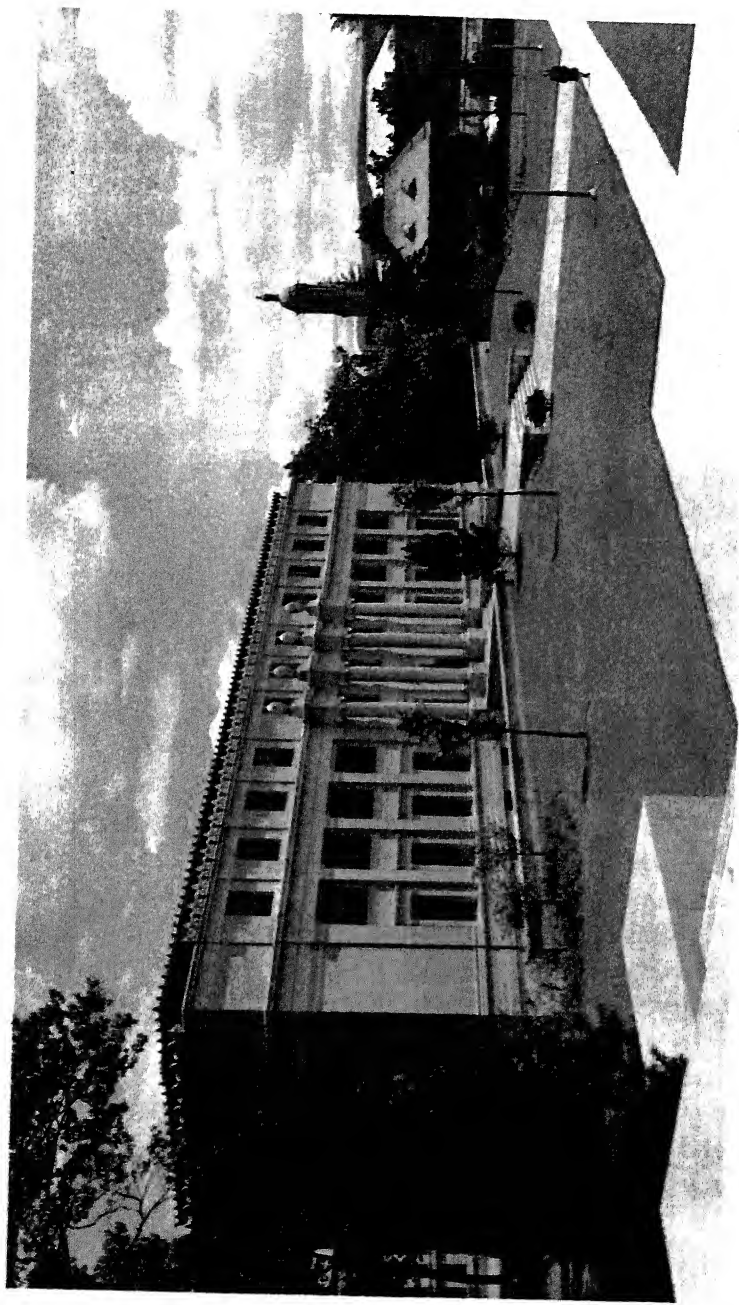
Of comparatively recent origin, the School of Education has a history covering approximately two decades. Despite its brief life, however, its growth and vigor have amply justified the wisdom of its establishment. Created by the process of drawing off from the other undergraduate Schools of the College whatever activities these were carrying on for the training of teachers, it became itself the special medium of

such training at Penn State. Several attempts were made at an early period to provide teacher training, but these failed to gather enough support to develop a sustained program. In the catalogue of 1887, J. W. Heston is listed as principal of the Preparatory Department and "Professor of Pedagogics"; and apparently some lectures were given for several years on educational history and methods. From 1896 to 1899 Martin G. Benedict, in charge of the sub-freshman class, was listed as professor of pedagogics; but no course in pedagogy was outlined in the catalogue, nor is it clear that instruction was given in this subject at the time.

In 1893 and 1898 attempts were made to organize a summer session, but the response was so discouraging that further efforts in this direction ceased for a decade or more. Finally, such a session was established successfully in 1910, and has been held regularly since that time. Coincident with its opening, Dr. S. E. Weber, whose specialty was education, came to the College as Dean of the School of the Liberal Arts and Director of the Summer Session for Teachers, as we have seen. He organized the Department of Education and Psychology and administered it until his resignation in 1914, when Dr. L. W. Rapeer succeeded him as head of the department. Upon the resignation of the latter in 1917, Dr. D. A. Anderson became his successor, remaining in charge until 1926. Teacher training in the College was not confined to this department, however, nor was there any one organization on the campus designed to bring together for instructional purposes all those who were preparing to be teachers. Under the Smith-Hughes Act of 1917, vocational education had been placed in the Schools of Agriculture, Engineering, and Mines, and in the Department of Home Economics. It now seemed logical and timely to create a new School for the purpose of assembling into one organization all members of

the faculty whose work was principally that of the training of teachers; and to place under their charge all students preparing to be teachers. Out of these conditions grew the School of Education at Penn State.

Upon the recommendation of President Thomas, the Board of Trustees, in June 1923, established the School of Education. This brought into one organization the Department of Education and Psychology, from the School of the Liberal Arts; the Department of Industrial Education, from the Schools of Engineering and Mines; the Department of Teacher Training Extension, which had been associated with the administration of the Summer Session; and the hitherto independent Department of Home Economics. On the ground that it was concerned chiefly with the improvement of teachers in the service, the Summer Session also was placed under the administration of the School of Education. At the same meeting at which these measures were adopted, the Board appointed Will Grant Chambers as Dean of the School. Dr. Chambers, who had been in charge of the Summer Session for two years, brought with him, as administrative assistants, Arthur S. Hurrell as Director of Teacher Training Extension and P. C. Weaver as Assistant Director of the Summer Session. The School began its work in September 1923 with a faculty of 30 members, and enrolled 359 students during the year. D. A. Anderson was head of the Department of Education and Psychology; Edith Pitt Chace, of the Department of Home Economics; W. P. Loomis, '10, of the Department of Industrial Education; and George Rex Green, '15, of the Department of Nature Study. In 1925 budgetary complications caused the return of the Department of Rural Education (Agricultural Education) to the School of Agriculture; and its place was taken by the new Department of Nature Education, transferred from the Forestry Department.



BURROWES BUILDING
Education

Since all the departments were engaged in the work of the preparation of teachers, it was thought desirable to have but one curriculum in the School of Education. Because of the varied content and techniques for which teachers were to be prepared, however, this was found to be impracticable; hence each department used its own curriculum, although the curricula have undergone certain modifications resulting from the experience of the passing years. The initial degrees were B.S. and B.A., the latter being granted to those who had taken at least fifty per cent of their credits in the School of the Liberal Arts. A serious problem confronting the School of Education was that of student practice teaching, especially in view of the regulation of the State Department of Public Instruction requiring a minimum of six semester hours of observation and practice teaching for certification. Finally, however, satisfactory arrangements were made for student teaching in the cities of Johnstown and Altoona. In 1927 Dr. C. C. Peters was added to the staff as Director of Educational Research, and in 1931 Dr. R. G. Bernreuter started the Psycho-Educational Clinic. Meanwhile, close relations had been established with the State Department of Public Instruction, in cooperation with which two new graduate degrees were instituted—Master of Education and Doctor of Education, which were especially adapted to the graduates of the State Teachers Colleges. These professional degrees are under the jurisdiction of the faculty of the School of Education, whereas the degrees of Master of Arts, Master of Science, and Doctor of Philosophy are administered in cooperation with the authority of the Graduate School of the College.

As constituted in 1943-44, the School of Education had five departments, consisting of Education and Psychology, Home Economics, Industrial Education, Music Education, and Nature Education, headed by B. V. Moore, Laura W.

Drummond, F. T. Struck, Hummel Fishburn, and George R. Green, respectively. Although music had long been offered for teachers in the Summer Sessions, it was not expanded and organized into a curriculum in Public School Music in the regular session until 1931-32, with R. W. Grant in charge. Upon the retirement of Dean Chambers in 1937, Dr. M. R. Trabue was appointed to succeed him as Dean of the School of Education and Director of the Summer Sessions. Others in administrative positions are: P. C. Weaver, Administrative Assistant to the Dean and Assistant Director of the Summer Sessions; A. S. Hurrell, Director of Vocational Education and of Educational Extension; Frank H. Koos, Assistant Director of Correspondence Instruction; and C. O. Williams, Assistant Administrative Head of the Lower Division.

After a decade of growth, the faculty of the School of Education undertook an elaborate survey of its organization, administration, and curricula with a view to increased efficiency. This resulted in a plan for the reorganization of the School on a professional basis with its work confined to the junior, senior, and graduate students. It was agreed with the School of the Liberal Arts that there should be a common Lower Division, or curriculum of two years, for all students enrolled in the two Schools, except for those registered in the curricula of Home Economics and Industrial Education. Admission to the School of Education was to be moved up to the end of the second College year, no sophomores or freshmen being admitted. After completing the work of the Lower Division, students are admitted partly on the basis of a good College record and a satisfactory intelligence quotient, and partly on the basis of tests and examinations revealing their personal aptitudes and qualities. Candidates for degrees are required to pass comprehensive examinations in their major and professional fields of study prior to their final semester in College.

One of the leading departments of the School of Education and of the College is Home Economics, which antedates the establishment of the School of Education and long functioned as an independent department. Because of its importance and its previous history, it seems advisable to sketch its origin and development in some detail. Almost from the beginning the land-grant institutions, the principal promoters of this type of education, have recognized the need of a scientific basis of education for the home. As early as 1879 Miss Anna Cooper taught cooking and sewing to women students in the basement of Old Main, and thereafter more or less attention continued to be paid to such work. As the number of women students increased, it was felt that their needs should be more fully recognized than had previously been the case. When, therefore, the State Federation of Women's Clubs met at State College in 1906, a resolution was passed demanding that the Legislature appropriate funds for the establishment of a Department of Home Economics at the College. This movement resulted in the creation of such a department at Penn State in 1907, with Miss Louise Waugh as instructor; funds for its maintenance were supplied by a legislative appropriation. The subjects taught included cooking, sewing, household management, music, and art: considerable equipment was installed, and a library was started. The original laboratories in Old Main were later supplemented by space in McAllister Hall for classes in sewing, weaving, and basketry; and additions to the Woman's Building provided improved facilities. Miss Waugh continued as head of the department until 1910, when she was succeeded by Miss Sara C. Lovejoy, who served as Dean of Women and Director of Home Economics until 1918. During the latter's incumbency, the number of instructors increased to six and the enrollment grew from 20 to more than 100. Miss Lovejoy was succeeded

by Miss Edith Pitt Chace, who was head of this flourishing department from 1918 to 1938, when she was succeeded by Dr. Laura W. Drummond, now in charge.

Under Miss Chace the department experienced a remarkable expansion. Courses in institutional management and vocational home economics were added. A house on the campus was equipped for practice in home management under actual home conditions; the senior students lived there in groups of eight and did all the work, including the care of a baby under one year of age. A second Home Management House was opened in 1932-33. In 1928 a Nursery School, with superior equipment, was added to the facilities of the department. In 1922-23, the last year of its independent existence, the department had 12 instructors and 152 students. A splendid new Home Economics Building was formally opened in October 1932. This provided the most improved modern facilities for the various phases of instruction, including a suite of rooms for a nursery school where students are given an opportunity to participate in the study, care, and guidance of children of pre-school age. A third house on the campus has recently been equipped for instruction in home management.

Recent trends in Home Economics include an increased interest in hotel administration, greater emphasis on sociological rather than technical aspects of home life, and a growing demand for graduate courses in both summer and winter sessions. The curriculum in Hotel Administration, designed to meet a special demand for personnel adequately trained in present-day hotel methods, offers instruction in business management, in supervision of mechanical service of hotels, and in household economy pertaining to house-keeping and kitchen-dining room service. In addition to courses for those majoring in Home Economics, the depart-



THE HOME ECONOMICS BUILDING

ment offers various service courses as electives; and these are taken by men, in considerable numbers, no less than by women. The department now has 28 instructors and about 500 students. Its extension work, which is of large proportions and is handsomely supported by State and Federal appropriations, is administered by the School of Agriculture.

The extension work of the School of Education, which is described in some detail in Chapter XV, now has more than 200 courses, a few of which are on the graduate level. In 1937 the Department of Teacher Training Extension was renamed the Department of Education Extension, and has continued under the direction of Dr. A. S. Hurrell. While the School of Education has been engaged chiefly in the work of instruction on the campus and through its extension service, of late years it has been devoting increasing attention to research, especially since the appointment in 1927 of Dr. C. C. Peters as Director of Educational Research. Important investigations have been made by members of the staff in the objectives and methods of public education, resulting in the publication of numerous books and articles which have added prestige to the School.

Inadequately housed and equipped throughout most of its history, being located successively on the first floor of Old Main, in one end of Engineering F, and in the old Beta Theta Pi House, it is now well-provided with facilities for carrying on its work. The new Education building, named the Burrowes Building in honor of President Burrowes, offers excellent modern facilities for effective instruction and research; and the Home Economics Building is first-class in its appointments. The three Home Management Houses give students actual experience in the various phases of home management. With an able and progressive faculty and an excellent physical plant, the School of Education has measured

up admirably to its obligations to the Commonwealth in the past, and may be expected to continue its career of progress in the future.

THE SCHOOL OF PHYSICAL EDUCATION AND ATHLETICS

The School of Physical Education and Athletics, the youngest of the Schools of the College, was so recently organized as to furnish but few historical records to pass in review. Furthermore, its story is so closely related to athletics that its background and a good part of its activities can perhaps best be described in that connection in a later chapter. However, for the sake of completeness, it seems advisable to give at this point the salient facts about its origin and development as one of the seven undergraduate Schools of the College.

The Pennsylvania State College has been interested at all times in the physical welfare of the students, and has consistently encouraged them to pay due regard to a matter of such consequence. It was not until 1897, however, that we find in the reports of the Presidents of the College reference to what is described regularly thereafter as the "Department of Physical Education." This department, loosely organized for some years and directed by men with varying titles, was successively in charge of George W. Hoskins, S. B. Newton, W. N. Golden, W. E. Lewis, and Hugo Bezdek. All of these men labored to develop the students physically and to train winning athletic teams. The Armory served as headquarters for the department, and much of the work formerly consisted in gymnastic exercises. The function of the head of the department was to recommend the physical and athletic activities of the institution; to train the students in indoor and outdoor exercises and sports; and, with such assistants as might be available, to coach teams engaged in intercollegiate

sports. The tendency, however, was to concentrate on turning out winning teams rather than upon the physical training of the whole student body. In 1913 President Sparks complained that "owing to the absorbing public interest in intercollegiate sports, it is a difficult task to get back to the original idea of athletics—play for the sake of play."

Meanwhile, the Athletic Committee, under the leadership of Raymond H. Smith, '05, Graduate Manager of Athletics, was interested in broadening the play program of the College to include the entire student body. The idea was to develop intramural or mass athletics instead of merely centering attention on coaching a small percentage of the students for intercollegiate contests. The philosophy back of this plan was that it would not only develop all the students physically, but would serve also to develop athletes for the intercollegiate games, the cream of the athletes composing the members of the teams. It was thought that the best way to accomplish the desired objectives was to establish a system devoted primarily to the physical education of the students generally by means of intramural athletics, which would serve the additional purpose of supplying a group of athletes from which the most skilled might be selected for the varsity teams. Such a system would place the whole athletic program on a higher plane. In the 1920's some progress was made toward the accomplishment of these ends, but not to the extent desired by those most interested in promoting the plan. The College was growing rapidly and the existing system of physical education and athletics hardly measured up to the demands of the situation. As a result of these conditions, considerable dissatisfaction manifested itself among the alumni, and a movement was started to do something about it. The outcome was the appointment by the Alumni Association, in the spring of 1927, of the John Beaver White Committee to survey the

situation and to recommend such changes as in their judgement seemed wise. Such was the background out of which emerged the School of Physical Education and Athletics.

After long and serious consideration, the White Committee brought in a report recommending that henceforth the Department of Physical Education should function in a manner similar to other Schools of the College, its Director not being a "coach of any branch of sport or any team taking part in intercollegiate competition." The belief was stated that in this way intramural sports would be fostered and a department of physical education would be built up "wherein the physical development of the student at Penn State shall keep pace with his mental development." Upon receiving this report, the Board of Trustees appointed a special committee, headed by J. B. Warriner, '05, to consider the matter. In June 1929 the Warriner Committee brought in its report recommending that hereafter intercollegiate athletics should be a part of a Department of Physical Education and Athletics, whose Director should be responsible to the administration of the College, with the Board of Athletic Control serving as an advisory group; and it was further recommended that the Director should not be a coach of any collegiate team. This report was referred to the Board of Athletic Control, which endorsed it in principle and recommended the organization of a School of Physical Education and Athletics. At its meeting on January 20, 1930, the Board of Trustees approved this recommendation and proceeded to establish the School of Physical Education and Athletics, whose administrative head should be a Director "with the same status and the same general responsibilities and duties as attach to the . . . other Schools of the College." All instructors were to be employed as members of the academic staff of the College and to be responsible in the same way to the College administra-

tion. Hugo Bezdek was appointed Director of the new School and continued to hold this position until 1937, when Dr. Carl P. Schott was appointed to succeed him, with the title of Dean of the School of Physical Education and Athletics.

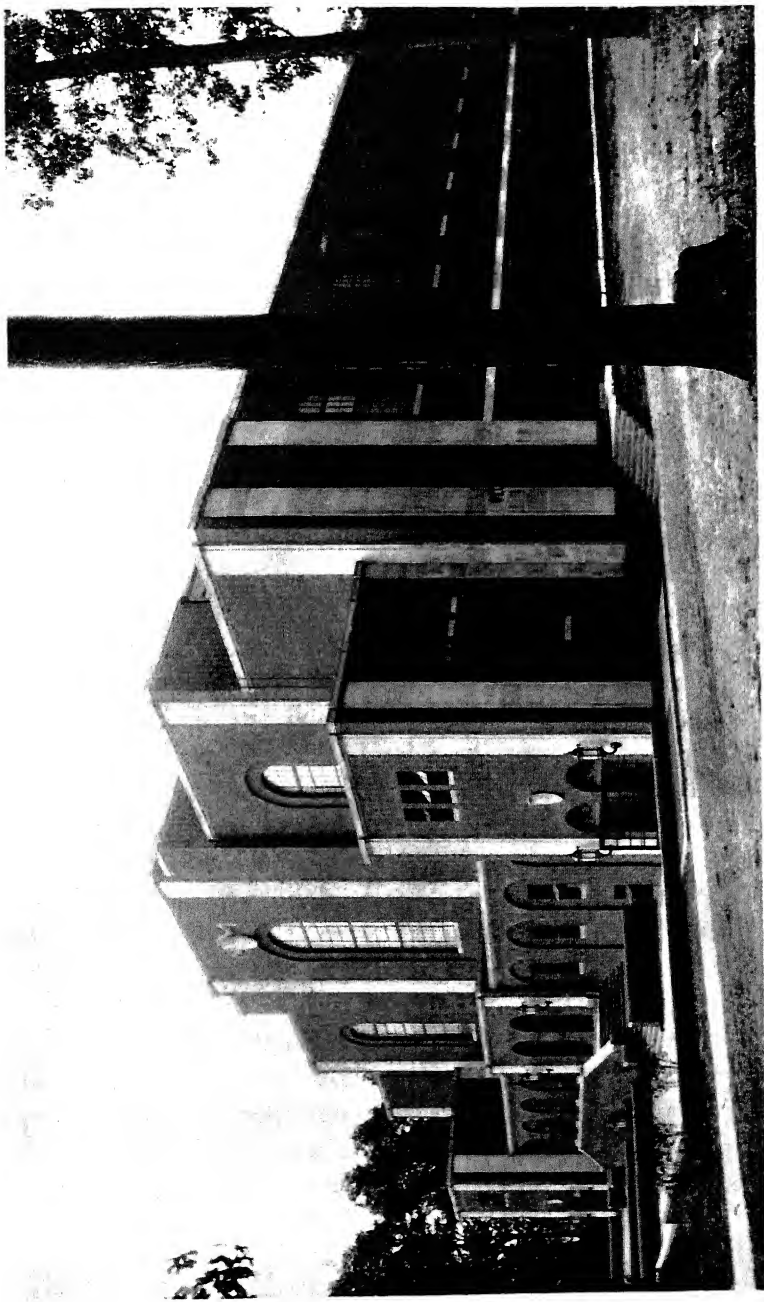
A primary object of the new School was to develop mass athletics in which the whole student body would participate. The College administration desired that its graduates should emerge from the institution not only with trained minds but with trained bodies as well, "capable of standing up under the physical strain of a long life of usefulness to society," as President Hetzel expressed it. It was proposed "to enter upon a most advanced program for administering to the physical needs not only of the athletically inclined student but of the backward and physically undeveloped student as well"; and this was to be accomplished by supplementing intercollegiate athletics "with an extensive program of play and education which shall touch every student in the College." As finally worked out, the program of health, physical education, and athletics offered by the School consists of professional education in health and physical education, research, required health and physical education for men and for women (including corrective work), intercollegiate athletics, intramural athletics, and recreational activities. Since the Director did no coaching, he could now devote his whole time and attention to developing this program and to securing the facilities required for this purpose.

The curriculum in Health and Physical Education became operative in 1931-32 on a two-year basis; but was expanded the following year into a regular four-year curriculum leading to the degree of Bachelor of Science, the first class being graduated in June 1935. Qualified students may pursue graduate work, and this type of work has received a great impetus in recent years, particularly in the summer sessions.

Such study may lead to the degrees of Master of Education, Master of Science, Doctor of Education, or Doctor of Philosophy, with a major in health, physical education, and athletics.

The School of Physical Education and Athletics offers an elaborate program of required health and physical education for both men and women, in charge of experienced professors. Each student is afforded the opportunity to learn new physical activities or to become skilled in those for which he has displayed aptitude. All students are required to take a medical examination conducted by the College Health Service, and those having remedial physical defects are given educational activities adapted to their particular cases; they must also receive instruction in health education during the first four semesters of their college career. The program of intramural athletics has been progressively expanded to the point where it includes a wide range of activities for both men and women. There is also a well-developed recreation program comprising various activities offered according to the interest of the students. The Women's Recreation Association, which includes all undergraduate women in its membership, cooperates with the School of Physical Education and Athletics in establishing and promoting an extensive program of intramural and recreational activities for the entire women's student body.

The School was organized with 15 professors and instructors and 10 part-time assistants. The new program upon which it embarked involved various changes in personnel, since the staff would now be required not only to be experienced coaches but to teach advanced professional courses, freshman hygiene, and physical education, necessitating familiarity with the principles and procedures of education. Hence the staff was reorganized on this basis and was gradu-



THE RECREATION BUILDING

ally enlarged until it included 28 full-time faculty members and several part-time instructors. As at present constituted, the School is administered by Dean Carl P. Schott and the following heads of activities and divisions: Neil M. Fleming, '14, intercollegiate athletics; Lloyd M. Jones, professional education in health and physical education; Glenn N. Thiel, '38, required physical education for men; Arthur F. Davis, required health education for men; Marie Haidt, required health and physical education for women; Eugene C. Bischoff, intramural athletics; and Ray M. Conger, recreation activities. The enrollment in the Professional Health and Education Curriculum, embracing the students majoring in this School, increased from 43 in 1931-32 to 165 in 1935-36, and to 180 in 1941-42.

The School of Physical Education and Athletics has excellent facilities for carrying on its work. The Recreation Building, a large modern structure, contains the offices of the School and is the headquarters for such indoor sports as basketball, wrestling, and boxing. It has a large playing floor, 154 by 167 feet, and is capable of seating 6500 spectators. Future plans call for a considerable enlargement of this building to supply a swimming pool, an athletic cage, and other facilities. The Mary Beaver White Recreation Hall for women has been in use since the fall of 1938, and is one of the most complete buildings of its kind to be found in the country. Besides its main playing floor, it has numerous special features, among which may be mentioned a swimming pool, bowling alleys, squash court, rifle range, fencing room, lounge, student club rooms with fireplaces, staff and student organization offices, and classrooms. For outdoor sports, the College has New Beaver Field, containing fifteen acres, as the main playing field for intercollegiate athletics, embracing a football gridiron enclosed by a quarter-mile cinder track, a baseball dia-

mond, two football practice fields, and sixteen tennis courts. Six intramural fields, other fields of about six acres each, additional tennis courts scattered about the campus, and a golf course are available to the students for play. All in all, the School of Physical Education and Athletics is well equipped for its work; and its program, being in harmony with the growing tendency among educators to elevate the whole field of health and physical education to a higher plane, may be expected to play an increasingly important part in the training of students at Penn State.

THE GRADUATE SCHOOL

Having discussed the origin and development of the seven undergraduate Schools of the College, it is now in order to give a brief description of the Graduate School. Advanced instruction at Penn State dates back to 1862, when there were two graduate students in residence. For many years, however, the number of such students was small and graduate instruction was unorganized, each department conducting the work with but scant reference to other departments. Later, the work was placed under the direction of a committee of the faculty or of the College Senate. Although it was recognized that such an arrangement could not be regarded as a satisfactory or permanent solution of a growing administrative problem, the committee continued to function until displaced by the organization of the Graduate School.

With the growth of the College, accompanied by a corresponding increase in the number of graduate students, it followed naturally that the graduate work of the institution should be organized on a school basis with a dean at its head. Furthermore, the College was developing an increasingly important research program, whose contribution to the Com-

monwealth and to society required facilities beyond those of an undergraduate level. It was felt that an agency was needed for training investigators whose researches would aid in the solution of problems and would contribute to the advancement of learning to a greater extent than had hitherto obtained. The establishment of a graduate school would not only stimulate advanced study with all available resources and equipment but would also serve to encourage experienced faculty members to persist in research, besides holding out to ambitious young instructors the hope of greater usefulness. The College had a staff of proved ability to carry forward an effective and scholarly research program. There was also present, no doubt, the conviction that promotion of graduate work through an agency created for that purpose would add to the prestige of the institution throughout the educational world. From the student point of view, it was desirable as meeting the demands of those who wished to pursue graduate work under favorable conditions and were persuaded that it would open up better professional opportunities to such of them as took advantage of it.

The time was ripe to put these ideals into concrete form; hence the Trustees, at their meeting on June 12, 1922, proceeded to establish at Penn State a Graduate School for the promotion of advanced study and research, with Dr. Frank D. Kern, head of the Botany Department, as dean. In accordance with the plan of organization adopted November 6, 1922, the faculty of the School consists of the President of the College, the Dean of the Graduate School and the other deans of the institution, the Director of the Summer Sessions, the Librarian, the Registrar, the heads of departments offering major graduate credit, and such members of the staff as have immediate supervision of graduate courses offered for major credit. The graduate faculty has general control of all matters

pertaining to the Graduate School. It recommends to the College Senate all regulations governing admission, registration, and classification of graduate students and all approved candidates for advanced degrees. Much of its work is initiated by three standing committees—the executive committee, consisting of the dean and five members appointed by him with the approval of the President; the committee on admission, consisting of three members; and the committee on courses of study, consisting of three members. Regular meetings are held within two weeks of the close of each semester, and special meetings may be held when called by the dean or upon the request of five members.

The beneficial effects growing out of the creation of the Graduate School were felt promptly throughout the whole institution. Graduate study and research were stimulated, and graduate work was systematized. Graduate instruction was offered in all subject-matter departments and divisions, procedures were correlated, standards were raised, and the resources of the institution for advanced work were more efficiently utilized. Many additions were made to the list of graduate courses offered by the various departments; alumni returned in larger numbers to do graduate work. Some advanced undergraduate courses were strengthened, and were open to both undergraduate and graduate students, carrying graduate credit for the latter. Graduate students were permitted to build into their programs a certain proportion of such courses, and undergraduates felt the stimulus of association with these students in the same class. A further effect of the organization of the School was the increase in the number of seminar courses, thereby allowing greater latitude of choice within a course and obviating the necessity of listing a greater number of fixed subjects or courses to cover the same work. Finally, institutional recognition of the value of research was

augmented, and deans and heads of departments were led to encourage research by the members of their staffs to a greater degree than had formerly prevailed.

At first, the admission and classification of graduate students was dealt with in the dean's office, but the matter of admissions was later transferred to the office of the College Examiner. It was recognized that not every one with a bachelor's degree was qualified to carry on advanced work; hence in 1937 a regulation was adopted providing that a student must have had a grade point average of at least 1.5 during his junior and senior years to be eligible for admission to the Graduate School. In 1938-39 a new regulation governing the classification of graduate students was put into effect, permitting candidates at the time of admission either as regular or general students. The regular students are degree candidates whose status and conditions of candidacy are determined at the time of admission, their program being developed under the guidance of an adviser. General students, on the other hand, are non-degree candidates who must meet all the requirements for admission to the Graduate School, but need not meet the prerequisites for any particular major. In this way the danger of over-specialization for such students is avoided.

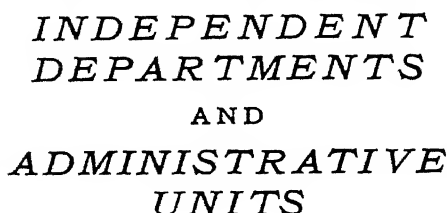
The matter of aid for graduate students was given considerable attention. Prior to the establishment of the Graduate School there was a rank known as Teaching Fellow, but in 1923 this was replaced by the rank of Graduate Assistant. The assistants spend their time in about equal proportions in instruction and in graduate study, receiving a stipend of \$700 a year. In 1925 the Trustees established another rank known as Graduate Scholar, the holder of which must have an approved bachelor's degree and must show promise of ability to carry on graduate study successfully. Graduate scholars

render limited service as assistants in classroom or laboratory, and are exempt from graduate student and practicum fees. In 1928 was created the rank of Graduate Stipend Scholar, the recipients spending one-fourth of their time as assistants in laboratory or classroom instruction and receiving \$300 a year. Prior to 1936, scholars were selected upon the recommendation of heads of departments, but in that year the responsibility of nominating them was placed in the hands of the executive committee of the Graduate School to insure a more definite principle of selection. Finally, in 1939 the rank of Fellow was created, no service being required and the stipend varying from \$500 to \$1000. The whole time of a fellow must be devoted to a program of study and research leading to the doctor's degree. In the fall of 1942 there were 80 graduate assistants, 29 research fellows, 25 graduate scholars, and 13 graduate stipend scholars.

The first advanced degree conferred by the College was that of Master of Scientific and Practical Agriculture (M.S.A.); a few students received this degree in the early history of the institution, following which it lapsed. For many years thereafter only Master of Arts and technical degrees were conferred for advanced work; but in 1924, upon the recommendation of the Graduate School, the Trustees authorized the granting of the degree of Ph.D., thereby marking a forward step in the academic achievements of the College. Prior to the establishment of the Graduate School, the advanced degrees were Master of Arts, Master of Science, Civil Engineer, Mechanical Engineer, Industrial Engineer, Electrical Engineer, Metallurgical Engineer, and Engineer of Mines. These degrees were accepted by the Graduate School upon its organization, and since that time eight others have been added—Architectural Engineer, Chemical Engineer, Petroleum Engineer, Ceramic Engineer, Master of Education, Master of Forestry, Doctor

of Education, and Doctor of Philosophy. The advanced degrees granted by the College are of three classes—academic, professional, and technical. The academic degrees are Master of Arts, Master of Science, and Doctor of Philosophy, while the professional degrees are Master of Education, Doctor of Education, and Master of Forestry; and the technical degrees are those granted by the College in Engineering, Chemistry and Physics, and Mineral Industries. The academic and professional degrees are given only for work done in residence, whereas the technical degrees are conferred upon the basis of professional work and the submission of a thesis.

The Graduate School has grown steadily from its organization down to the present time. Starting off with a registration of 177 (including the summer session), its enrollment increased to 920 in 1931-32, and to 1731 in 1941-42. The enrollment of graduate students in the summer sessions considerably exceeds that in the regular session, since many teachers are present in summer to work for advanced degrees, particularly for Master of Education, Master of Arts, and Master of Science. It is now becoming increasingly recognized that undergraduate instruction no longer suffices for the training and educational equipment required of teachers in our high schools, at least for those seeking the better positions. As the standard of public school instruction rises, the teachers must be recruited to a greater extent than formerly from those who have had graduate training. In 1940-41 the Graduate School enrolled students from 171 accredited colleges and universities in 48 states, and conferred 364 advanced degrees, 51 of which were awarded to students receiving the degree of Ph.D. With its past record of creditable achievement, the Graduate School is now strongly entrenched on the campus and enjoys a growing prestige throughout the country.



*INDEPENDENT
DEPARTMENTS
AND
ADMINISTRATIVE
UNITS*

IN ADDITION to the several Schools of the College, there are certain independent departments and administrative units which play a significant part in its activities. These have been referred to at intervals in the course of our narrative, but will now be described in some detail in order that a more complete picture of the College organization may be presented.

THE COLLEGE LIBRARY

The College Library is the oldest and by no means the least important of the independent departments of the institution. A summons to scholarship, it serves not one School or department only, but everybody on the campus—faculty and students alike. Although antedating the formal opening of the College, its beginnings were insignificant. Even before the erection of Old Main was begun, a gift of books was made to the Library, which in 1858 was credited with 195 volumes. When the doors of the College were opened in 1859, the number of volumes had grown to 1500; and the school had been in operation less than three months when the Trustees appropriated \$250 to each of the two Literary Societies “to be expended in the purchase of books to enable them to com-

mence the formation of libraries." Despite this rather auspicious beginning, the Library underwent a long period of neglect thereafter, numbering but 1600 volumes in 1876. Within two years, however, it passed the 2000 mark, and in 1882 it emerged from the period of the "dark ages" of college history with about 3000 volumes.

In this early period the Library was not only small but suffered from lack of organization. Prior to 1874 there was no librarian in charge, and the use of the books was restricted to the few who carried the keys to the dingy room which housed the antiquated collection. In that year, however, Professor William Buckhout became the first librarian, serving in that capacity for three years and keeping the room open an hour daily for the few who wished to use it. In 1878 Professor Arthur Grabowski became the custodian of the key to the library room for one year, when he was succeeded by Professor Charles F. Reeves, '78, who served as librarian from 1879 to 1889. In this decade considerable progress was made in building up the Library and rendering it usable; the number of volumes increased to about 6000, and the hours open daily from one to six. The books were overhauled and rearranged according to the topical plan. Some additions were made to the equipment, and a Library Committee was appointed by the Trustees "to secure a somewhat proportionate distribution of the library appropriations among the various departments of the institution." During this period the appropriations to the Library ranged from \$100 to \$300 annually, although in 1887 it was granted a special appropriation of \$3000 for its enlargement. In 1888 it received 477 bound volumes of government publications, for which it became a depository thereafter.

During the session of 1889-90 the Library was moved into better quarters in the central wing on the second floor of Old

Main, and a reading room was added. This remained its location until 1903, when it was moved into the new Carnegie Library Building. Professor Reeves was succeeded by Miss Elizabeth Torrey, who served for five years and was succeeded by Miss Helen M. Bradley. Miss Bradley, who entered upon her duties in September 1894 and was the first full-time College Librarian, proceeded promptly to make a shelf list and an inventory of the 9054 volumes on hand and to have the accessions published monthly in the *Free Lance*, the College magazine. Within two years the number of volumes increased by 2388 accessions, and the list of periodicals in the reading room was considerably enlarged. In June 1896 the Executive Committee of the Board of Trustees authorized the employment of a permanent assistant, and in the fall of that year Miss Anna MacDonald was secured for this position. In 1895 the library hours were extended to include the hours between 9 a.m. and 5 p.m., and in 1897 began the practice of opening on Sundays from 3 to 5 p.m. When the Washington and Cresson Literary Societies disbanded, their libraries, consisting of some 585 volumes, were turned over to the College Library. In 1896-97, branch libraries, located in the offices of heads of departments and cared for by secretaries, were established in the departments of Engineering, Mining, and Chemistry. Upon receiving a legacy of \$5000 for the Library from George W. Blight in 1902, the Trustees set it apart as a separate fund to be known as "the George W. Blight Agricultural Library Fund . . . to be used for the purchase of books and periodicals for an agricultural library."

A memorable event in the history of the Library was the erection of the \$150,000 Carnegie Library Building in 1903—the gift of Andrew Carnegie. This led to a reorganization of the staff: Dr. Erwin W. Runkle was appointed librarian (part time), with Misses Bradley and MacDonald as full-time

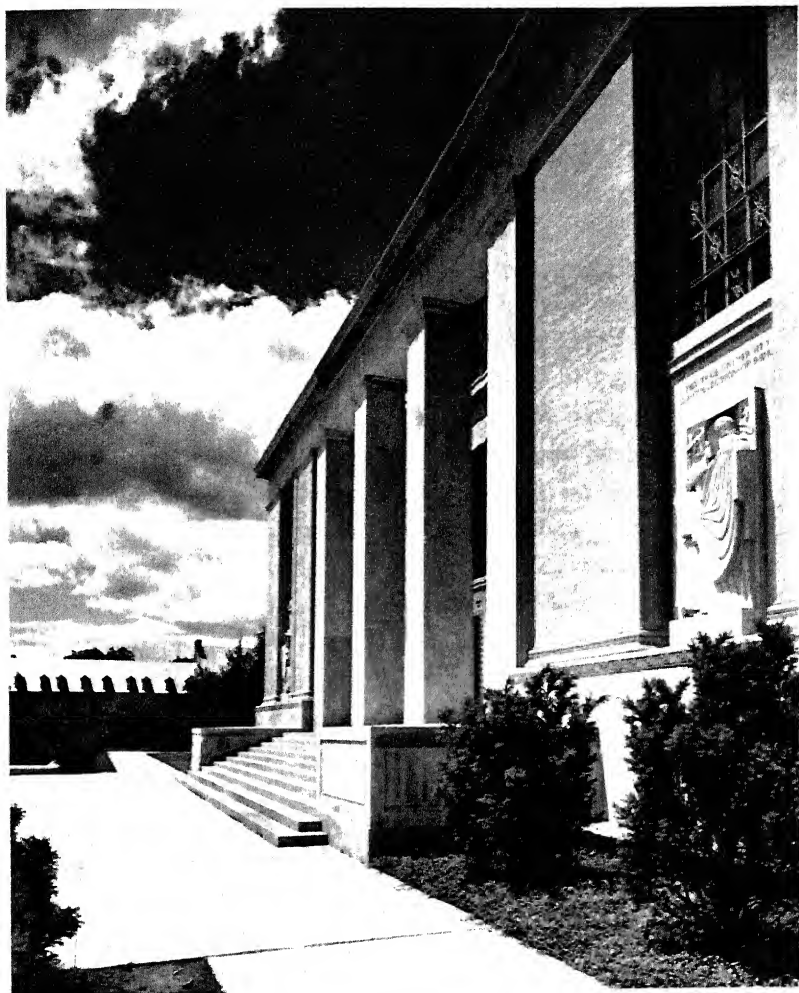
assistants. Miss Bradley, who had served as librarian for ten years, continued to serve as assistant under Dr. Runkle until 1908. This reshuffling of the staff came about because it was deemed advisable, in view of the changed conditions attendant upon the occupation of the new building, that the head librarian should be a man.

During the incumbency of Dr. Runkle, extending over a period of twenty years, notable advances were made. Additional reading rooms were provided, the basement was fitted up for government documents, cases were added in the stacks and alcoves, the staff was increased from three to eight, the call for extension work was met, and the hours were extended to include fourteen daily on week-days and from 3 to 10 p.m. on Sundays. In this period the number of volumes increased from 21,000 to 87,493, the Library Summer School was established, and a collection of materials illustrative of the life and growth of the College was begun. Two large special collections of books were added—the George W. Atherton Library of Economics and Political History, and the James A. Beaver Alcove of Pennsylvania History, the former being presented by the Class of 1907 and the latter by General Beaver. In 1921 the John Hamilton legacy of \$10,000 established the Hamilton Fund for the purchase of religious books. An important departure was the change from a purely reference library to one of free circulation—a reform accomplished gradually between 1904 and 1914. In 1924 Dr. Runkle relinquished his position as part-time librarian in order to devote his whole time to teaching and to administering the newly created Department of Philosophy.

Dr. Runkle was succeeded by Miss Sabra W. Vought, the first fully trained librarian in the history of the College. Under her supervision the Library made considerable progress. In 1926-27 the number of volumes passed the 100,000

mark—the dividing line between a medium and a large library. The staff, including the agricultural librarian, was increased from eight to eleven, and the reference library was developed. Alcoves containing bound volumes of periodicals were opened to students; current periodicals were removed from the newspaper room to a large room on the second floor, with an attendant in charge; the order department was organized and placed in charge of a member of the staff; and the branch library of the School of Mineral Industries was given an attendant. By 1930 the number of volumes had increased to 120,861. The Edwin Erle Sparks Memorial Library of American History was established in 1925 by contributions amounting to \$5000 by the students and other friends of Dr. Sparks, \$3000 being set aside as a permanent endowment for the purchase of books on American history and biography. Upon the resignation of Miss Vought in 1930, an interregnum of about a year occurred, during which Miss Gladys R. Cranmer, '32, Assistant Librarian, served as Acting Librarian.

In November 1931 Willard P. Lewis became the Librarian of the College, a position which he still holds. Under his efficient management the Library has made marked progress; it now contains more than 250,000 volumes and is growing rapidly. Conducted throughout according to approved standards, it is open every week-day from 7:50 a.m. to 10:00 p.m., and on Sundays from 2 to 10 p.m. In 1935 the standards were raised by requiring that thereafter no one should be employed as a member of the staff who did not possess an academic degree and at least one additional year of library training. Another step in advance was the centralizing of the administration of the four branch libraries of the institution under the College Librarian. The branch libraries are located in the Schools of Agriculture, Engineering, Mineral Industries, and Chemistry and Physics, with a full-time librarian



THE LIBRARY

in charge of each. Much the largest of these is the Agricultural Library, occupying the entire first floor of Patterson Hall and containing 32,000 volumes.

In recent years the Library has published a handbook of information for faculty members and graduate students, a mimeographed monthly news sheet for dormitory libraries and fraternities, accession lists for faculty members, a thesis list, and *The Headlight*—a bulletin of library acquisitions and library news nationally recognized for its excellence as a library publication. Other recent improvements are the establishment of a microfilm reading service, a reorganization of the card catalogue, and the installation of the McBee Keysort charging system. Besides the substantial accessions in the form of gifts already mentioned, the Library has received other valuable gifts within the past decade, among which are the following: \$4400 from the Class of 1935, the Plumb Bible Collection from Mr. Claude Aikens, the Fred Lewis Pattee Collection, the complete files of *The Democratic Watchman* from Mr. George R. Meek, '90, and the Hay Collection of 6000 volumes (partly gift and partly purchase).

An important event in the history of the Library was the completion of the present Library Building in 1940, and the removal of a great array of books, periodicals, pamphlets, and documents to the new building—an attractive structure, occupying a commanding site at the head of the Mall and flanked by the Sparks Building and the Burrowes Building. In March 1941 the Librarian was designated as Archivist "to collect, catalogue, and protect records pertaining to the history of the College," and a large room on the fourth floor of the Library, known as the "Penn State Room," was set aside for housing this material. The Summer Library School, originating in 1911, has been maintained successfully for many years. Worthy of note, also, are the numerous ex-

hibits of cultural value which the Library puts on display from time to time. The rate of growth of the Library is such that a large increase of its facilities will be required in the near future.

DEPARTMENT OF MILITARY SCIENCE AND TACTICS

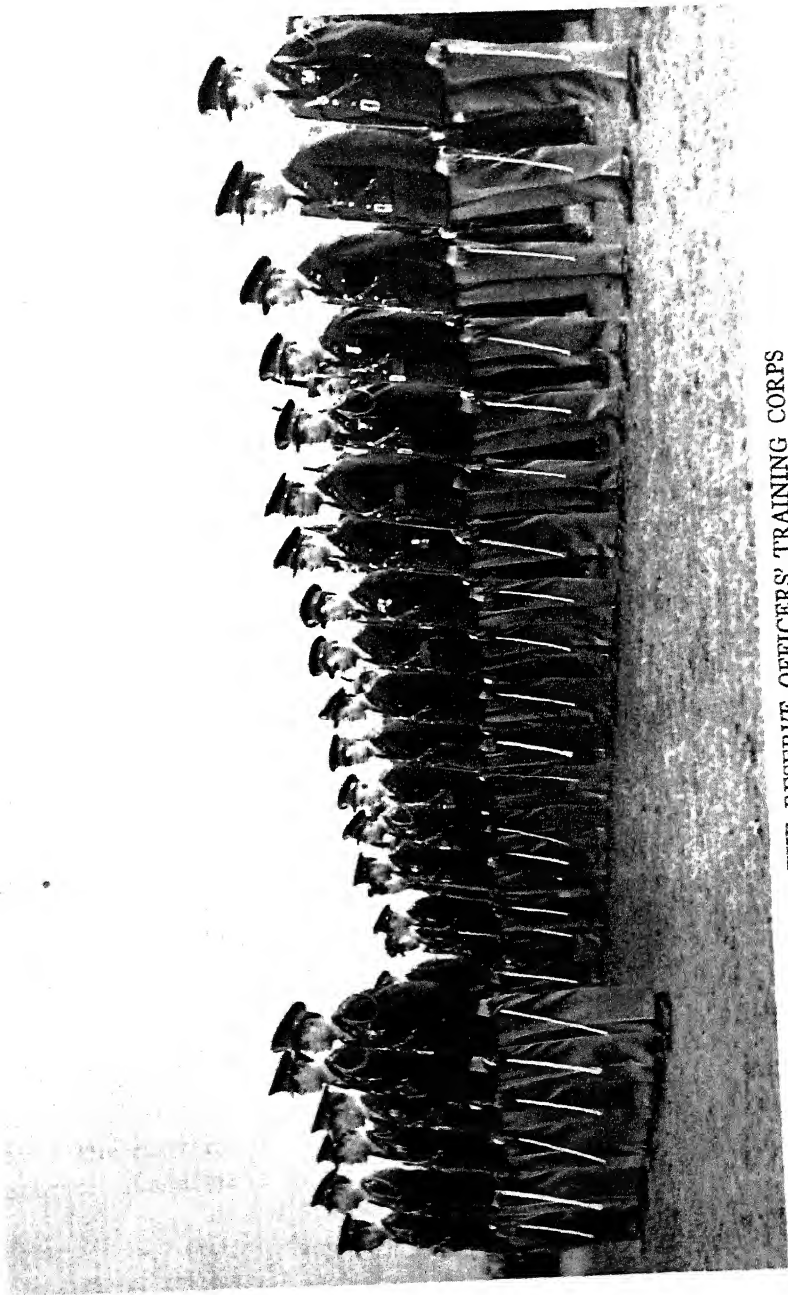
Although the Morrill Act of 1862 specifically required that military instruction should be included in the curriculum of every land-grant college, time was needed in which to develop a plan and procedure for carrying out this provision. The Civil War being in progress, the government did not at this time prescribe any outline of studies, and supplied neither uniforms nor equipment. For some years no army officer was detailed to have charge of this department, but the Trustees met the situation as best they could by designating some member of the faculty who had seen more or less military service to give military instruction in addition to his other duties. The first such instructor was General John Fraser, who was employed in 1865 as professor of mathematics and lecturer on military tactics. Having secured arms and accoutrements from the Ordnance Department of the Commonwealth of Pennsylvania, General Fraser proceeded promptly to organize a military company at Penn State and to devote one hour daily to military instruction and drill. Other early instructors in the military department were A. H. Tuttle, John Hamilton, John F. Downey, and Arthur Grabowskii. During his term of office from 1875 to 1877, Colonel Grabowskii, who was professor of modern languages, instituted a very elaborate course of training, with all the organization, regulations, and ceremonies of a military post. The battalion appeared at county fairs and at patriotic celebrations, and marched in the inaugural parade of Governor John F. Hartranft in 1877.

Meanwhile, the College had long been trying to secure from the War Department the appointment of an army officer as military instructor, but without success. Finally, in 1877, Lieutenant Walter Howe was detailed to Penn State as the first regular army officer in charge of the military department. The department was now transferred from the small room in the basement of Old Main, previously serving as headquarters, to the unused dining room on the first floor, which was fitted up as an armory. Lectures were given on infantry, artillery, and cavalry tactics, with bayonet and saber exercises. The hours of drill were fixed at three times weekly in the fall and winter terms, and at five times weekly in the spring term; there were daily inspections of quarters, besides frequent reviews and dress parades, and the original blue uniform was changed to gray. From this time forth, military instruction became much more efficient in the hands of men professionally trained and having this department as their sole responsibility. In 1880, military drill was made optional with seniors who were not officers. The new Armory, completed in 1888 when the battalion numbered 132, was regarded as one of the finest to be found in the country at that time. In order to make the best arrangement possible for the instruction of officers, the battalion was divided into four companies; in 1895 it acted as escort of honor at the inauguration of Governor Hastings. Prior to 1907-08 the commandant had no assistance in carrying on his work other than that afforded by the cadet officers; but in that year, the student body having increased from 898 to 1151, Captain William Hay was given an assistant instructor detailed by the War Department. Thereafter the staff of the military department increased with the growth of the College. On the eve of the First World War, it consisted of Major O. W. Bell, Captain Arthur E. Ahrends, First Lieutenant C. A. Baehr, Maurice C. Allen,

P.N.C., and Bandmaster W. O. Thompson. During this war thirty regular army officers were stationed at the College, Major James Baylies being commandant. The Student Army Training Corps, numbering 1600, was sworn into the regular service at an impressive mobilization on the campus on October 1, 1918.

The significant development of military instruction at Penn State dates from the National Defense Act of 1916 (amended in 1918), which gave to instruction in military science in the colleges the definite objective of preparing young men to be reserve officers, commissioned as second lieutenants in the organized reserves of the United States Army. Specific curricula were prescribed by the War Department, with instruction in charge of officers detailed for that purpose. Since that time, military education at Penn State has been organized in units of the Reserve Officers' Training Corps, in the various branches of the service. Under the Acts of 1916 and 1918 an Infantry unit was maintained at the College until 1925, but in that year an Engineer unit also was established, two officers being detailed by the Engineer Corps of the War Department to supervise and instruct it. In 1931 the instructional staff comprised 10 commissioned officers and 4 enlisted men (sergeants). A decade later the staff consisted of 16 commissioned officers and 8 non-commissioned officers. From 1919 to the present time the heads of the Department of Military Science and Tactics at Penn State have been Colonels M. D. Welty, C. McLaughlin, W. B. McCaskey, R. E. Venable, A. R. Emery, and E. D. Ardery.

The course of instruction offered by this department embraces a basic course of two years and an advanced course of two years. The basic course, normally coincident with the freshman and sophomore years in college, includes the elementary and practical subjects of military training, and its



THE RESERVE OFFICERS' TRAINING CORPS

completion entitles the student to six credits towards graduation. The advanced course is elective for students who have completed the basic course with superior grades and are physically fit to hold commissions in the Officers' Reserve Corps. Each student in this course receives pay and allowances from the Federal Government amounting to about \$200 in cash payments and an officer's uniform, which becomes his property upon graduation. Attendance at a summer camp of six weeks' duration is required of students in the advanced course, all expenses incurred for this purpose being borne by the government. During 1939-40 the Cadet Corps was reorganized into an Infantry Unit and an Engineering Unit, conforming to like units in the regular army; and in 1941 a Signal Corps Unit was added. Instruction for basic students is the same for these units, the division being made for purposes of organization and drill. The quota for the advanced course is limited by the government to about 230, but always more apply than can be accepted. Upon graduation and completion of the advanced course, the student receives a commission as Second Lieutenant in the Officers' Reserve Corps of the Army of the United States, or a certificate entitling him to such commission upon reaching the age of 21 years. Leadership and character development are emphasized in both the basic and the advanced course, every effort being made to impress upon the student the value of habits of promptness, obedience to authority, and due observance of military courtesy and behavior.

THE COLLEGE HEALTH SERVICE

With the growth of the College it became necessary to take more adequate measures for promoting the health of the students, the movement in this direction being hastened by an outbreak of scarlet fever at Penn State in the session of 1912-

13. A beginning was made by establishing in the woods adjacent to New Beaver Field a temporary isolation hospital consisting of a section of the old frame dormitory known as "Bright Angel." This was dubbed the "Pest House" and was later removed to the site now occupied by the Water Tower. The agitation thus begun for providing proper care for ill students resulted in a movement to raise subscriptions to erect a hospital; and about \$5000 was subscribed for this purpose by local friends of the College and by friends over the State, including Governor Tener and Senator Penrose. This sum was thought to be sufficient to warrant breaking ground for the hospital at the June Commencement of 1913. Inasmuch, however, as President Sparks was of the opinion that at least \$15,000 should be in hand before building operations commenced, the project was deferred for the time being. For reasons which are not clear, this particular movement proved abortive, but the funds then accumulated were afterwards added to those raised by more than 1400 potato growers of Pennsylvania for the erection of the present Infirmary.

Despite the failure to erect a suitable hospital at this time, steps were taken to place the Health Service on a firmer basis than had hitherto existed. The "Pest House" continued to serve during several years for contagious diseases, and early in the College year 1914-15 the Board of Trustees employed Dr. W. E. Forsythe as the first regular College Physician. In January 1915 the College Health Service, occupying a former residence on the campus, was put into effect under the direction of Dr. Forsythe. The Trustees authorized the erection of a house adjoining it for the residence of the College Physician, and voted for the support of the Service one dollar per capita of the gymnasium fee. The Health Service concerned itself not only with the care of the sick and injured, but in the ensuing fall term, for the first time, gave to every student enter-

ing college a medical and physical examination. Students received free medical attention at the dispensary each week-day from 9:00 to 12:00 a.m., and on Tuesday, Thursday, and Saturday evenings from 7:00 to 8:00 p.m. In 1916 the Health Service staff consisted of Dr. Forsythe and two nurses, the student enrollment then being around 2500.

In 1917 Dr. Joseph Ritenour, '01, succeeded Dr. Forsythe as Director of the Health Service and College Physician, a position which he still holds. In the following year was begun the practice of teaching hygiene to freshmen. For some years the Health Service was unable to function properly because of cramped quarters. At first it was concerned mostly with making health examinations and administering to the needs of sick and injured students. Gradually, however, it enlarged its sphere of activities, which have been directed more and more toward the health status of individual students, "pointing out measures for improving it when indicated and supporting facilities for maintaining or restoring it when occasion arises." In January 1929 the main activities of the Health Service were transferred to the new College Infirmary, a substantial brick building well equipped to furnish medical care for sick students. The Infirmary, which is the first unit of a proposed larger building, has accommodations for about forty patients, with the necessary service and utility rooms, an operating suite, a clinical laboratory, and quarters for the superintendent and nursing staff. The Dispensary, located in Old Main, is open during class hours for office medical attention, including special examinations and medicines.

As the College grew, the Health Service expanded in personnel and activities to meet the increased demands upon it. The staff now includes the Director, four full-time and two part-time assistant physicians, the superintendent of the infirmary, ten graduate nurses, a laboratory technician and

an X-ray technician, a secretary and three clerks, a housekeeper, cook, and two helpers. Formerly, students paid a small Health Service fee, which provided for medical consultations and advice, but not for drugs, dressings, and bedside care, for which a moderate charge was made. Upon petition of the students in 1937, however, this fee was raised to \$5 per semester, thereby assuring a student all ordinary medical care that may be needed, including at least seven days in the Infirmary without further charge except for an additional \$2.50 per day for any hospitalization beyond a week. Upon entering college, each student is given a thorough health examination, including a tuberculin test and X-ray film of the chest. All candidates for physical activities are re-examined when necessary, and certificates of eligibility or ineligibility to participate are issued to the person in charge of the particular activity in which the student is registered. Furthermore, all applicants for admission into the Reserve Officers' Training Corps are given the physical examination prescribed by the United States Army to determine their fitness for commissions. As the scope of its activities broadens, the College Health Service performs an increasingly useful function on the campus.

THE DEPARTMENT OF PUBLIC INFORMATION

This department, originally known as the "Department of Publicity," was established in 1914 under the direction of Albert O. Vorse, who, in addition to his duties as instructor in journalism, was appointed College News Editor with a view to placing the College before the public so far as circumstances might permit. While something was accomplished in this way during the five years when Mr. Vorse was managing the publicity, it was felt that this somewhat casual method did not

meet the needs of the situation. Hence in 1919 the Trustees enlarged the scope of the department, of which D. M. Cresswell, '18, was appointed full-time head; and in 1922 it was renamed "Department of Public Information." As originally constituted, this department was designed to serve as a general College bureau of information, gathering and distributing College news to the public press, and editing all official College publications and publicity material issued in the name of the College. At the time of its creation, the personnel consisted of the department head, one assistant, and one clerk. Under Mr. Cresswell, first as Director of Publicity and then as Director of Public Information till 1931, considerable progress was made in publicizing the College through news material, feature articles, and sports stories furnished the public press and covering all the principal activities of the institution.

An increasing service was rendered to newspapers, magazines, and periodicals seeking specific information and articles concerning one or more phases of activity at the College. In 1923-24, for example, this department received 200 requests for some special news story or bit of information, and in supplying this demand prepared 88 news features and 137 athletic articles. With the growing public interest in the College, the demand for service of this kind constantly increased, one of the principal functions of the department being the maintenance of the news service through newspaper articles. In 1934 closer cooperation was effected between the Department of Public Information and the federated extension service of the College, and an arrangement was made with Howard W. Blakeslee, Science Editor of the Associated Press, whereby the scientific interest material of the College received national coverage. Since 1935 the several press associations have been using more news about the institution under their own datelines. The Associated Press and, to a lesser extent, the United

Press and the International News Service, make regular demands upon the department to act as their correspondents for wired news about conferences and other events on the campus. Since 1939 the department has placed greater emphasis on research activities, giving more adequate publicity to the research projects in progress at the College.

Besides furnishing information to the press of Pennsylvania and other States through various items and articles prepared by the Director and his staff, the Department of Public Information is the medium through which the College issues about 300 publications annually. These publications, consisting of catalogues, bulletins, circulars, and pamphlets, furnish information to prospective students and to the general public concerning instruction given on the campus and in extension, and disseminate the findings of the numerous research projects carried on by the College. The basic means of conveying this information is through the publication of some 60 bulletins comprising The Pennsylvania State College Bulletin series. These publications present a complete picture of the work carried on by the institution in all its varied curricula and activities. In his capacity as College Editor, the Director of Public Information supervises the production of all these publications, with the assistance of his staff. The staff, as at present constituted, consists of the director, assistant director, assistant publications editor, publications production manager, and news assistant, with from three to six part-time helpers. When Mr. Cresswell resigned in 1932, he was succeeded as the head of the department by W. W. Dunlap as acting director for two years, following which Walter F. Dantzcher served as director until 1943. The present head of the department is Louis H. Bell. The office of the Department of Public Information in Old Main is a busy place and tends to become still more so as the College grows.

THE OFFICE OF THE REGISTRAR

There is no record of anyone at Penn State who bore the title of Registrar prior to 1895, when Miss Harriet McElwain, lady principal and professor of history, became Secretary of the Faculty and Registrar, positions which she continued to hold until her retirement in 1901. Her successor in the last-named positions was John Leete, associate professor of mathematics, who served until 1906, when Dr. Judson P. Welsh, in addition to being vice-president and financial agent of the College, performed the duties of registrar from 1906 to 1908. In the catalogue of 1908-09 no one is listed as registrar, though Della M. Clark appears as "Registration Clerk" for that year. Meanwhile, the College was growing rapidly and it was desirable to overhaul the registration procedures and to devote greater attention to keeping the records. This led, in 1909, to the appointment of Professor A. Howry Espenshade, of the English Department, as Registrar of the College; he promptly assumed his duties, which did not then require more than a part-time service. An assistant registrar was appointed to aid him, especially in the capacity of scheduling officer. Prior to this time, but little is known of the method by which students were admitted or of the manner in which the records were kept, except that the latter were in code to prevent the inquisitive student from finding out too much about his academic rating.

During the incumbency of Miss McElwain and of Professor Leete it was the practice to admit to the freshman class graduates of State Normal Schools and of a select list of high schools and academies on the presentation of the proper certificate, without examinations being required. Examinations for admission were held at the College on Thursday of Commencement week and on the Tuesday preceding the open-

ing of the fall session, although it appears that the requirements for admission as set forth in the catalogue were not always enforced in practice. Furthermore, the record of every student was kept on some five or six cards, which complicated matters when statistical information about students was desired. The whole system of registration was cumbersome and ineffective, considerable laxity obtained in admitting students and in keeping their records, and it was obvious that changes were needed. Beginning with the appointment of Professor Espenshade as Registrar in 1909, this office assumed an importance not previously existing at the College, and revolutionary reforms were promptly undertaken. The published requirements for admission to the College and the actual requirements were made the same, thereby raising the standards of admission. The burdensome method of keeping the record of every student on half a dozen cards was revised by the simple expedient of putting his entire record on one card containing all the necessary statistical information regarding him. At this time began, also, the practice of putting on the student's card his rating in his class. A still more revolutionary procedure, in which Penn State set the pace, was the decision to admit no student with entrance conditions—an innovation that was adopted soon thereafter by Harvard and other leading institutions in the country. Another radical change was to use the rank of the applicant in his secondary school graduating class as a criterion in the selection of freshmen—a modification of existing practice which was also adopted by other leading colleges and universities. Professor Espenshade was one of the prime movers in the organization of the Association of Collegiate Registrars, and exerted a potent influence in shaping its policies, being its first president and its only member to hold that office for more than one term.

The duties of the Registrar became increasingly onerous

as time passed. He not only kept the College records relating to student credits and grades, along with the minutes of the general faculty, of the Council of Administration, and of the Senate, but performed other useful services. He long served as a sort of bureau of information for students, instructors, administrative officers, and visitors, and passed judgment on the entrance certificates of prospective students. Furthermore, he acted as corresponding secretary of the College, distributing catalogues, bulletins, and other occasional publications, though duties of this nature were later taken over by the Department of Public Information. In 1909 began the custom of having the Registrar make out the schedule of examinations, this part of the work being performed by the assistant registrar, who prepared the schedule of all courses by classes, subjects, sections, instructors, and classrooms, as well as the schedule of examinations. Professor Espenshade served as Registrar for half time from 1909 to 1919, when the work of his office had increased to such an extent that he was relieved entirely of his teaching duties in order that he might devote his whole time to this important office. In 1923 he relinquished the office to assume direction of the Emergency Building Fund Campaign, following which he became head of the Department of English Composition and Journalism. Meanwhile, the increase in the number of students with advanced standing seeking admission to the College necessitated the appointment of another officer to have charge of this part of the Registrar's work. Hence, in March 1920, the Trustees created the office of College Examiner to serve as a member of the Registrar's staff in charge of all questions of advanced standing. Dr. C. E. Marquardt, professor of romance philology, was appointed College Examiner, at first for part time, but since 1923 for full time, and is the present incumbent.

Upon the retirement of Professor Espenshade from the

office of Registrar in 1923, he was succeeded by William S. Hoffman, '11, of the Department of Architecture. During Professor Hoffman's term of office, which has extended down to the present time, important changes have been introduced in the manner of keeping the records. Among these are the use of tabulating machines in the compilation of statistics; the use of tracing cloth as a medium on which to keep the College records, thereby facilitating the issuing of grade reports and transcripts; and the devising of index numbers for the various high schools of the Commonwealth, by means of which it is possible to predict, with a high degree of accuracy, the rank of a freshman in his freshman class. In 1940-41 Professor Hoffman served as President of the American Association of Collegiate Registrars, a body composed of about 400 members.

Beginning with the session of 1924-25, the College established a new grading system whereby grades are recorded in honor points and not in percentages; this increased the average grade required for graduation from 60 to 70, although the passing grade remains at 60. A further departure from traditional practice was made when the Registrar's office, through its staff, became responsible for checking for graduation all those who receive degrees. The registration process supplies information to all College officers and instructors as to the students enrolled in the various curricula and courses. The Registrar serves as secretary of the College Senate and of the Council of Administration. Among the minor duties performed by his office is the preparation of eligibility lists for students in the various activities. By reason of its initiative in proposing and its readiness in adopting new and better methods of carrying on the work, the Office of the Registrar at Penn State has long enjoyed no slight prestige throughout the country.

THE SUMMER SESSIONS

The first regular summer session of The Pennsylvania State College was opened in 1910 under the direction of Dr. Charles D. Koch, a member of the State Department of Public Instruction loaned to the College for the purpose. The State was interested in the improvement of teachers then in service and was ready to cooperate with the College to further this end; from the beginning there has been a close relation between the Department of Public Instruction and the Summer Sessions at Penn State. For twelve years this work was known as the "Summer Session for Teachers," the teacher training movement and the development of the summer sessions being closely linked together. Since the first summer session students were more interested in self-improvement than in credits or certificates, many of the original courses offered did not carry college credit, but were organized to meet the practical problems of those in attendance. Later, however, the summer session program was reorganized on the basis of credit work for undergraduates, little attention being paid to graduate work at first. When the State Department of Public Instruction developed its program of raising the qualifications of high school teachers to a higher level, graduate work became one of the most conspicuous features of the summer sessions.

The summer sessions at Penn State have had a remarkable career of progress. In 1910 about 50 undergraduate courses were offered; but in recent years more than 400 are given in the main session alone, of which about 240 carry graduate credit. More than 40 departments of the College participate in this program. The summer session faculty exceeds 200, of whom about one-third are drawn from other institutions. The enrollment of students attending the first summer session was 147, but the number increased consist-

ently at a rapid rate, being 1340 in 1920, approximately 3000 in 1925, and 3335 in 1930. During the depression it fell to 3189 in 1936, but recovered rapidly and was 3484 in 1940. For a number of years The Pennsylvania State College has had one of the largest summer enrollments of any institution in the country. This is due to several factors, among which may be mentioned the wide variety and excellence of the courses offered, the careful adaptation of the program of work to the actual needs of summer students, and the picturesque mountain environment of the College, with its ideal climate for summer study.

Throughout all its early history the summer session maintained a basic term of six weeks, except for the years 1921-23, when the term was lengthened to eight weeks to enable teachers to renew or advance their teaching certificates. In the summer of 1930 the Inter-Session was instituted, the name of the six weeks' session being changed to Main Session; and in 1933 the Post-Session was inaugurated. As finally worked out in 1934 and continuing since that time, the Main Session of six weeks, together with the Inter-Session and Post-Session of three weeks each, provided a total of twelve weeks' work offered the students in the summer sessions. Besides the work of class instruction, the summer session programs have regularly embraced a number of special features, including the Institute of French Education, established in 1924; the Institute of English Education, inaugurated in 1926; and the Institute of Music Education, organized in 1926. Other special features are offerings in Art and Physical Education, the Library School, the Demonstration School, and the Nature Camp. An interesting feature is the Superintendents' Annual Conference held at the College during three days of the last week of July. This conference is organized and directed by a committee of the summer faculty and is always well attended

by the superintendents and principals of the public schools of the Commonwealth.

The work of the summer sessions has developed from a program designed almost wholly to meet the interests of teachers to one which now includes courses for college undergraduates, nurses, social workers, and other groups; and from an undergraduate program to one in which about half the courses carry credit toward graduate degrees. There is a strong trend from undergraduate to graduate work, and also from a large majority of women in the student body to an almost equal number of men; and more and more students are being attracted from outside the State. Also observable is a gradual change from conservative academic studies in favor of subjects such as art education, vocational education, music education, physical education, visual education, nature education, nursery school education, and home economics.

There have been five Directors of the Summer Session since its origin in 1910. Dr. Charles D. Koch organized and administered the first summer session, following which Dr. Samuel E. Weber, Dean of the School of the Liberal Arts, served as Director until his resignation in 1914. The next Director was Dr. E. R. Smith, of the Department of Mathematics, who served in this capacity from 1915 through the summer of 1921, when Dr. Will Grant Chambers assumed charge and continued as Director through the summer of 1937. He was succeeded as Dean of the School of Education and Director of the Summer Sessions by Dr. M. R. Trabue, the present incumbent.

THE ALUMNI ASSOCIATION

The first class, '61, received their diplomas as graduates of The Farmers' High School. The name of the institution having been changed before another Commencement ar-

rived, the second class, '62, were graduates of The Agricultural College of Pennsylvania. The class of '63 was the first to graduate after the completion of Old Main. Owing to an interruption of about four months caused by the absence of the senior class as "Hundred Days Men" in 1864, there was no graduating class that year. Again in 1867 no class was graduated because of radical changes in the curriculum during the administration of President Fraser. By 1870, however, the number of graduates and former students had grown to the point where it was thought desirable to effect an organization. On the afternoon of July 28, 1870, a few alumni gathered in the chemistry lecture room on the first floor of Old Main and organized an Alumni Association. A. A. Breneman, '66, was elected president and John I. Thompson, '64, vice-president of the organization. A committee was appointed to draw up a constitution, though it appears that this was not adopted until 1874, when the organization was formally christened "The Alumni Association of The Pennsylvania State College." The growing influence of the alumni is reflected in an amendment to the College Charter in 1875 permitting them to elect three of their members to the Board of Trustees—a privilege of which they availed themselves in June 1876 by electing James B. Miles, '61, H. T. Harvey, '62, and Cyrus Gordon, '62. Until 1905 one alumnus trustee was elected annually, but in that year the charter was further amended to give the alumni the privilege of electing nine trustees, or three each year for three year terms, as is the present custom. The alumni Trustees have always been influential in the affairs of the College, two of them—H. W. Mitchell, '90, and J. Franklin Shields, '92—serving as presidents of the Board and chairmen of the Executive Committee, Mr. Shields being the present incumbent.

The Alumni Association has exercised a large influence upon the policies of the College for many years, not only

through the Trustees whom it elects but in other ways as well. When its representation on the Board was small, the Association discussed the affairs of the College and voiced formal expressions of alumni opinion more frequently than has been the custom in later years. Alumni members of the Board now number not only the nine elected by the Alumni Association, but also others who may be elected by delegates from the societies or be appointed by the Governor. The alumni are further represented by many parents and State officials. The Board is by no means indifferent to alumni sentiment, and has always been ready to lend a listening ear to alumni recommendations. The influence of the Alumni Association has been strongly felt in athletics, among other things, an early instance of this being the appointment of the first Athletic Advisory Committee in 1899; while a more recent example was the alumni movement which led to the establishment of the School of Physical Education and Athletics. In 1906 a new constitution was adopted, which provided, among other things, for a Board of Managers to assume active charge of the business of the Association. The significant development of the organization, however, dates from 1910, when the decision was reached to establish at the College an Alumni Office and to employ as a salaried officer a permanent Secretary-Treasurer. The first to hold this position was E. P. Thomas, '09, who was employed on a part-time basis. Mr. Thomas undertook to reorganize the affairs of the Association by installing a system of individual graduate records and a geographical file; he also began the publication of the *Alumni Quarterly*, the first magazine of the organization. Resigning in the summer of 1911, he was succeeded in September of that year by Raymond H. Smith, '05, who held the dual offices of Secretary-Treasurer of the Alumni Association and Graduate Manager of Athletics.

By 1913 the effects of the reorganization of the Association

had become noteworthy, especially in the increased activity of the alumni, who now returned in increasing numbers to Commencement celebrations and class reunions. Branch associations were reorganized and new ones formed, and a definite plan for the systematic utilization of the alumni in connection with legislative appropriations was adopted. This led to the "Booster Campaign" of 1915 and 1916, undertaken with a view to securing increased legislative aid. Enthusiasm was mounting high when the distractions caused by the First World War resulted in the abandonment of the campaign. Resigning in 1918 to accept the newly created position of Comptroller of the College, Mr. Smith was succeeded in the following year by E. N. Sullivan, '14, who became the first full-time Secretary-Treasurer of the Association. The *Alumni Quarterly* was now discontinued, being superseded by the *Alumni News*. Under the editorship of Secretary Sullivan, the Association published in 1921 *Penn State in the World War*, containing the records of the alumni in that momentous struggle; and we have noted the great service it rendered in the Emergency Building Fund Campaign. The Alumni Association has long fostered an elaborate Commencement celebration for its members, with class stunts, costumes, and dinners. In 1920 began the custom of setting aside one Saturday as Alumni Homecoming Day, this particular reunion being general and not by classes as at Commencement time. In 1929 Mr. Sullivan resigned his position as secretary of the Association, and in 1930 was succeeded by E. K. Hibshman, '09, the present incumbent.

Under the guidance of Mr. Hibshman the Alumni Association has continued to make progress. In 1934 an Alumni Visiting Day was organized to be held annually in April, at which time alumni are invited to bring their sons and daughters to visit the College and see how it operates under normal

conditions. The Alumni Luncheon is held each year during Commencement, special attention being given to classes holding reunions. An important step in advance was the creation of the Alumni Council, which is the governing body of the Association and elects the alumni representatives to the Board of Athletic Control. During 1940-41 a plan was worked out for a student-alumni membership on a voluntary basis, whereby, upon the payment of \$8, juniors and seniors may become members of the Association throughout those years and for five years thereafter without payment of additional fees.

As at present constituted, the Alumni Office, located on the first floor of Old Main, has a personnel consisting of an executive secretary, an assistant executive secretary, two stenographers, one supervisor of the mailing room, and students working on a part-time basis. In its main task of preserving the unity of the Penn State family, it performs many useful functions both for the alumni and for the College. It maintains a complete record of every alumnus, thereby affording readily available information about all former students. Besides the *Penn State Alumni News*, an excellent magazine published seven months during the year, the Alumni Office issues a weekly *Football Letter* throughout the football season, a quarterly four-page folder known as the *Penn Stater*, and an elaborate *Alumni Directory* from time to time, the first of which appeared in 1883 and the last in 1935. Throughout the State and the country at large there are more than fifty Penn State Alumni Clubs, with which the College maintains contact by means of speakers arranged for by the Alumni Office. In view of the admirable service rendered by the Alumni Association, it has fully earned the regard in which it is held by upwards of 30,000 living alumni, and it may be relied upon to grow in favor, as in usefulness, in the years that lie ahead.

*THE PENN STATE CHRISTIAN
ASSOCIATION*

The Penn State Christian Association, the oldest student organization on the campus, has had a long and honorable history. As a result of a series of religious meetings held at the College in March 1875, under the leadership of S. A. Taggart, editor of the *Y. M. C. A. Watchman*, a "Christian Association" was organized with William Calder, '75, as president, E. L. Orvis, '76, vice-president, Louis Eldridge, '77, secretary, and C. F. Reeves, '78, treasurer. At a later meeting, the name was changed to Young Men's Christian Association, and it became a branch of the International Y. M. C. A. Until 1877 the meetings were held in the modern language room on the first floor of Old Main; but when the Literary Societies were disbanded in 1895, the hall of the Washington Literary Society on the fifth floor of Old Main became the headquarters of the organization. Interest developed with the passing years; and the Association, always regarded with favor by the College authorities, became an increasingly important factor in student life.

Regular meetings were held twice weekly, consisting of a prayer meeting and brief business session every Tuesday evening, and the more formal Sunday evening service. Committees were appointed on membership, Bible study, worship, missions, and handbook. In order to bring the new men into closer touch with each other and to promote fellowship among the students generally, several social gatherings were held during the year, the most important being the annual reception to new students on the Friday evening following the opening of the session. Throughout all its early history, the Association regularly offered a plan of Bible study by organizing classes which met on Sunday mornings, professors serving as teachers. In 1894 it began the publication of the *Student Hand-*

book—a directory of information concerning College activities. This publication, familiarly known as the “Freshman Bible,” became a valuable aid to incoming freshmen by acquainting them with the traditions, customs, rules, and regulations of Penn State.

For many years the Association carried on under the guidance of its own elected officers without the benefit of a general secretary. In 1903-04, however, J. R. Woodcock served as general secretary, though but little is known of the terms under which he held office. The first regular full-time salaried general secretary appears to have been Francis E. Wilber, employed in 1905 at a salary of \$850, and continuing in office until 1908, when A. A. Borland, '09, became acting secretary for one year. The next general secretary was F. N. D. Buchman, who came to the College in 1909 and remained in office until 1916; he later became leader of the Oxford Group and of the Moral Rearmament Movement. His term as general secretary coincided with a period of rapid growth of the student body, during which the Association expanded its work tremendously. It organized Sunday Schools and men's clubs in the neighboring schoolhouses, and held meetings in various adjacent towns and villages, as well as at the Huntingdon Reformatory and the Western State Penitentiary. It enjoyed great prestige throughout the country, being frequently cited for its “ideal organization and practical workings.” It was lauded by Robert E. Speer and John R. Mott, and various colleges and universities secured Y. M. C. A. secretaries who were trained at Penn State. During the First World War a small temporary building, known as the “Y Hut,” was erected for the Association immediately adjoining Old Main, and this continued to be its headquarters until it moved into new Old Main. Mr. Buchman resigned in 1916, and the work was necessarily somewhat disorganized throughout the war period,

during which Miles Horst, '14, John N. Horner, '15, and S. L. Doner each served as secretary for one year; by 1919, however, conditions had become more normal, and since that time there has been a succession of regular general secretaries. Frank I. Olmstead was general secretary from 1919 to 1924, when he was succeeded by Wilmer J. Kitchen for the ensuing four years. In 1928 Harry W. Seamans became general secretary and continued in office until 1943, being succeeded by James T. Smith, who is now in charge. Under the capable leadership of these men, the Y. M. C. A. has made a continuing record of progress.

Meanwhile, the Young Women's Christian Association had been organized at the College in 1907. Among its early activities were the organization of Sunday Schools in the outlying districts and the giving of an annual Christmas party to rural children. The Association held religious services on the campus every Sunday evening, and conducted a mission study class. A special effort was made to reach each new girl and to help her in making college adjustments. Social centers were organized in all rural schools for miles around, and instruction was given in home economics on Saturday evenings. A part of the funds for carrying on these activities was derived from membership fees, and the remainder from the proceeds of an annual play given by the Association. Beginning about 1930, this organization shared jointly with the Y. M. C. A. in sponsoring numerous projects in their total program, and in 1934 a unification was effected when the two cabinets decided to form one body.

With the amalgamation of the Y. M. C. A. and the Y. W. C. A. into one organization, it was renamed the Penn State Christian Association. The legal responsibility of the P. S. C. A. is assumed by a Board of Directors composed of faculty members, alumni, and students. With an annual budget of

about \$13,000, the Board of Directors employs four full-time secretaries and defrays other necessary expenses. The cabinet, which is the governing body of the Association, is responsible for planning the program and projects to be undertaken each year; under the cabinet are five commissions whose duty it is to direct the many projects and activities of the organization. Among these activities the Association sponsors a series of freshman mass meetings, publishes the *Student Handbook*, and supervises a student employment service, a housing bureau, freshman counsellor programs, Bible conferences, study groups, and forums on current problems. Fireside Sessions are held each year at different fraternities and dormitories to stimulate creative thinking on the various problems of the day. The Association has also brought to the campus free lectures and forums by some of the most eminent religious and educational leaders of the country. About 1000 students are active participants on its 52 committees, and more than two-thirds of the student body are reached through its forums and programs. The Penn State Christian Association has acquired the reputation of being one of the outstanding Associations in the colleges and universities of the United States.

OFFICE OF THE DEAN OF MEN

The creation of the office of the Dean of Men grew out of the desire to promote the social and moral welfare of the students in their activities outside the classroom. Although some of his duties are concerned with matters of discipline, much the larger part of the work of the Dean and his assistant consists in personal counselling, designed to aid students in becoming adjusted to environmental conditions and to assist them in problems of finances, social behavior, and extracurricular activities. His office is linked with student government,

from which it receives considerable assistance; and one of its principal functions is to coordinate the several agencies which contribute to student welfare.

President Sparks recognized the fact that the growth of the College was attended by the danger that the faculty administration would become a machine operating with little regard for the student's personality. He sought to avert this danger by inaugurating in 1909-10 a system of student advisers, and by the appointment in 1912 of Dr. Arthur Holmes to the newly created position of Dean of the General Faculty. Although Dr. Holmes performed such routine duties as presiding at faculty meetings and passing upon various minor matters, the major portion of his time was given to promoting student welfare through personal conferences or by contact with student group organizations. Without possessing the title, he was in effect dean of men. When he resigned in 1919 to become President of Drake University, the Trustees created the office of Dean of Men and appointed A. R. Warnock to that position, which he still holds.

As first outlined, the duties of the Dean of Men included the supervision of the welfare, self-aid, and organized activities of the men students in their living conditions outside the classroom. By this time, student government at Penn State had become well established and was fast becoming a tradition. Impressed with its values, Dean Warnock labored to strengthen it in every possible way, not only on a campus-wide scale but also in sub-divisional groups. The result was that it proved to be one of the most helpful factors in promoting student welfare. Meanwhile, certain new conditions arose which in some ways operated to render supervision of students more complicated. Among these were: the abolition of morning chapel, the rapid increase in the number of fraternities, School and departmental groupings on an expanded scale, the

diminution of the personal factor in student politics as it assumed more of a two-party flavor, and the lessening contact of faculty members with the whole body of students as their acquaintance tended to become limited to smaller groups. A further decentralizing factor was the passing of Penn State from the status of a college to that of a university in organization, curricula, and procedures. In the midst of these changing conditions an effort was made to keep before the students certain fundamental characteristics, such as democracy, social usefulness, and loyalty.

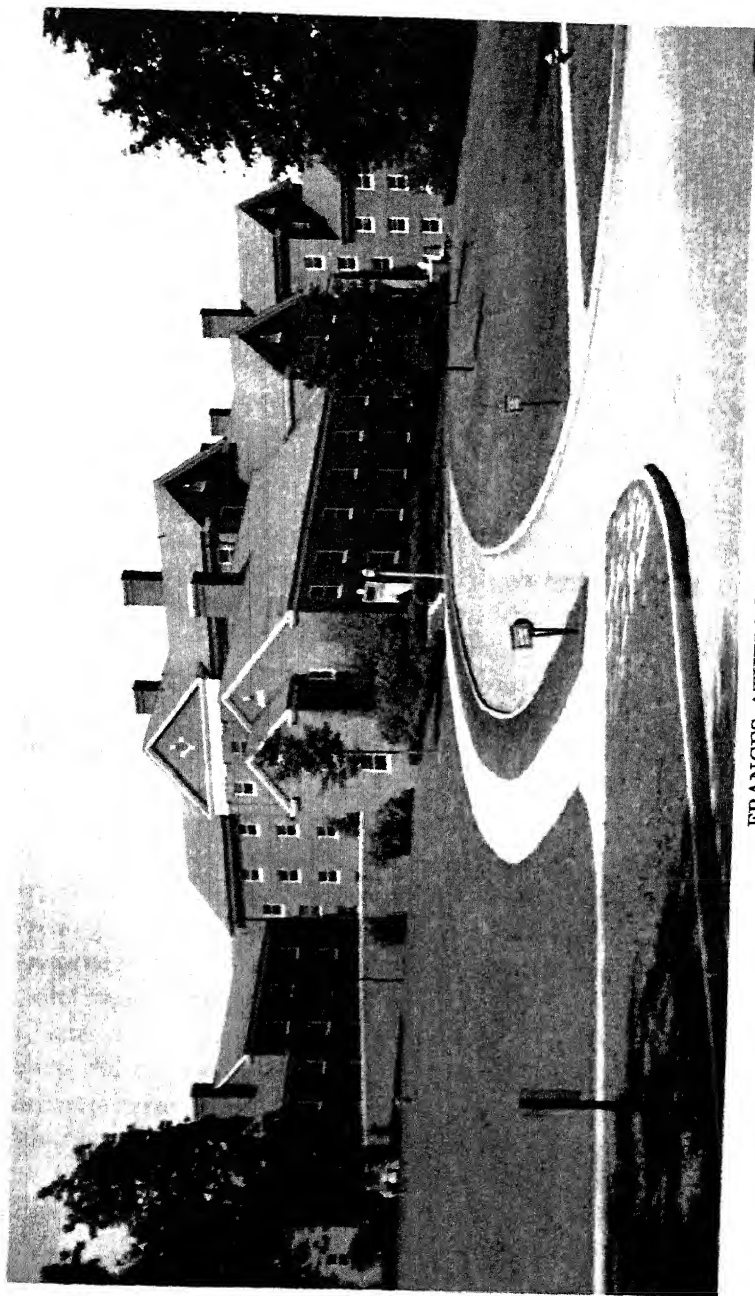
With the growth of the student body, the office of the Dean of Men came to include numerous routine duties, such as the issuing of recommendations for excuses, helping needy students to find part-time jobs, making loans from student loan funds, and handling various details incidental to students' organized life. Other duties include aiding students who become involved in difficulties of one sort and another, devoting some attention to student housing, and serving on faculty committees. The unorganized non-fraternity group of students presented special problems; but this difficulty was largely overcome by the organizing of the Penn State Club, which increased the social opportunities of its members. A further advance for this group was the organization of the Independent Men's Association to give non-fraternity men the athletic, economic, and social privileges that other organized groups enjoy.

Throughout the years there has been developed at Penn State an unwritten code of manners, customs, and traditions which helped to mould the behavior of the student body. To perpetuate the ideals of the code a new framework of student government was inaugurated. Student self-government, which has recently been reorganized on a highly centralized and effective basis under enlightened student leadership, goes far

toward solving the problems with which the office of the Dean of Men has to deal.

OFFICE OF THE DEAN OF WOMEN

When the doors of the College were opened to women in 1871 and the top floors of the west wing of Old Main were assigned to their use, it was deemed necessary to have someone to exercise supervision over them; and this may be considered as being in some sense the origin of the office of the Dean of Women. The first title given to the supervisor was that of "preceptress," but a decade later it was changed to "lady principal," and finally to "dean of women." The preceptresses were Jane W. Hoyt, Nellie E. Clough, Lizzie Z. Smith, and Louisa H. Dent, the first of whom served from 1872 to 1874 and the last in 1876-77. In 1878 Anna M. Cooper became the first of the lady principals and so continued until 1883, when she was succeeded by Harriet A. McElwain, who was the last to hold that title. In 1901 Helen A. Snyder, whose title was "acting dean of women," succeeded Miss McElwain and served for three years, being followed by Anna E. Redifer "provisionally in charge of the women's department" until 1907. Prior to this time there had been only a handful of women students, but the creation of the Department of Home Economics in 1907 led to a marked increase in their number. Sara Cutts Lovejoy served as Dean of Women from 1907 to 1918, and Lucretia V. T. Simmons for one year thereafter. By 1919, however, the number of women students had increased to 278 and the duties of supervision had become too onerous to be performed satisfactorily except by devoting full time to this work. Hence in 1919 the Trustees made the office of Dean of Women a full-time position, to which Margaret A. Knight was appointed. Miss Knight served in this capacity until 1923, when she was succeeded by Miss Charlotte E. Ray,



FRANCES ATHERTON HALL
Dormitory for Women

who has held this important position for the past two decades.

The Dean of Women and her assistants, of whom there are four, act as advisers to all undergraduate women students on matters having to do with living arrangements, social activities, and financial aid. With the growth in the number of women students from 339 in 1923 to more than 1700 in 1942-43, the work of supervision increased enormously and the staff was correspondingly enlarged. A good part of the duties of Dean Ray and her assistants is to act as counsellors. To no slight extent the Dean of Women is a personnel officer, holding interviews daily with the girl students concerning personal problems, health, social life, financial needs, studies, vocational plans, housing off the campus, relations to organized groups, and extracurricular activities. Much time is taken up in attending meetings of different student groups and of chaperons of both campus and town houses, not to mention frequent visits to the dormitories, with which close contact is maintained.

For many years the housing of women students has been one of the great problems faced by the Dean of Women. With the continued increase in women's enrollment, it became necessary to use more student houses in town: in 1936, for example, when the enrollment was 1023 the campus capacity for housing women was only 400. The completion of Atherton Hall relieved the pressure for a time; but this was renewed with the rapid increase of women students in the past few years, and there are now 24 town houses occupied by these students. All of these houses are organized under chaperons and are supervised by the office of the Dean of Women, which is in charge of all undergraduate women on or off the campus, except those living with parents or relatives. The Dean is aided effectively in her work by the Women's Student Govern-

ment Association, of which all the girls are members. The W. S. G. A. renders valuable assistance in handling women students, for whom it is the chief coordinating agency.

The office of the Dean of Women has supervision of the loan funds available for women students, besides giving aid and counsel to those seeking to defray a part of their expenses by outside work. The proportion of women students dependent partially upon self-support ranges from about 20 to 25 per cent ordinarily. They also have access to loan funds, and are further helped by alumnae clubs. All girl students desiring self-help register in the office of the Dean of Women, where advice is given to those seeking employment.



*THE EXTENSION
SERVICES*

ALONG WITH resident instruction and research, extension instruction is one of the major functions of the College, and its importance is such as to call for more detailed treatment than has been given to it from time to time in the preceding narrative. The extension services are not merely a by-product of resident instruction and research, but themselves bear a certain relationship to institutional responsibility. The traditional view which would confine the educational activities of an institution to the limits of the campus is outmoded by the enlarged conception of the present day, particularly as regards the land-grant colleges and universities. Being tax-supported, these institutions conceive of themselves as servants of the State and therefore under a peculiar obligation to carry instruction to the people in every way possible. Indeed, the underlying purpose of extension teaching is that of service to the people, particularly to that adult portion of the population hitherto neglected by the traditional educational system. The extension program assumes that education is not "a process of acquisition and storage during early life," but rather that it is a lifetime process extending beyond the years when one attended high school or college. It therefore seeks to educate people after they have completed their more formal schooling, and to assist them in the individual problems of their several vocations in life.

The primary aim of the extension services of The Pennsyl-

vania State College is to further the education of interested citizens of the Commonwealth by bringing to them the advantages of vocational, social, and humanistic instruction not open to them through the usual educational channels. While the aims of extension are partly vocational, they are by no means exclusively so, since they include the humanistic and social objectives inherent in all education. Inasmuch as many people, in fact the large majority, have, in their youth, been deprived of the opportunity to acquire a college education, the extension program seeks to supply this need as far as possible in their later years. It aims to equip workers for the effective pursuit of their occupations and to keep them abreast of constantly changing practices by furnishing additional training and practical information designed to raise the standard of living in their several communities. It endeavors to promote social welfare and to prepare the individual for improved relationships with the social group; to furnish guidance and assistance for relatively mature people engaged in the daily tasks of earning a living; and to carry to them the results of the research achieved at the College. It seeks to serve those working on the farm, in the factory, in the store, in the schoolroom, in the mine, and in the home, by furnishing them the means of broadening their training by utilizing their leisure time in study for self-improvement. In those communities where the need is present and the demand exists, the extension services of the College are always available for supplementing existing secondary educational agencies.

In carrying out these aims, The Pennsylvania State College provides a broad and varied extension program of class instruction, correspondence instruction, and informal teaching. These methods of reaching the people are employed regularly by many divisions which are integral parts of the undergraduate Schools of the College. The extension work has

expanded with the growth of the institution until it now ranks as one of the principal agencies for carrying the blessings of education to hundreds of thousands of people who would otherwise be deprived of this opportunity. The original method of promoting extension education was by the publication of bulletins giving the results of research carried on at the College by the Agricultural Experiment Station. The bulletins, however, reached but few people, and their influence as an educational agency was small. Next came an informal lecture service by various members of the faculty, but this also reached only a limited audience. The first method of reaching the people on a scale of any importance was that of correspondence instruction, which, originating in the School of Agriculture in 1892, developed gradually to large proportions, not only in that School but in others as well, until many thousands of people throughout the Commonwealth had received instruction by this means. Extramural class instruction, of greater significance than the correspondence courses, has long been one of the principal agencies of extension teaching, reaching numerous groups of people of diverse interests and occupations by means of class centers, technical school centers, cooperative centers, supervised home study courses, and undergraduate centers on the junior college level. The type of extension teaching that reaches by far the largest number of people, however, is that of informal instruction. This method employs a wide variety of agencies, such as public lectures, institutes, short courses, conventions and conferences, demonstrations, clinics, municipal advisory service, club service, community recreation service, vocational guidance, visual instruction, and the distribution of bulletins, circulars, and other types of literature. Through these several agencies the extension program of The Pennsylvania State College is carried to hundreds of thousands of people annually. The methods by

which the extension services of the College are made available throughout the length and breadth of the Commonwealth will be further illustrated as we proceed with the story of their origin and development.

Before there was any organized extension instruction at Penn State, something was accomplished along this line by members of the faculty who responded to calls to deliver addresses at fairs, farmers' institutes, and meetings of agricultural societies. The extension service of the College began in 1892 with the establishment by the School of Agriculture of a reading course known as "The Chautauqua Course of Home Reading in Agriculture." At first the College provided books at reduced cost, and gave readers examinations when desired. Later, it was found to be desirable to aid the readers through correspondence, and in 1897 the practice of sending out printed lessons on particular subjects treated in the books was begun. The following year the name of the course was changed to "Correspondence Courses in Agriculture." By March 1899 the total enrollment of students in these courses had reached 3416, of whom 460 had received instruction by means of printed lessons. In 1908 there were 31 distinct courses classified under the heads of general agriculture, animal husbandry, dairy husbandry, horticulture, and miscellaneous. Penn State was a pioneer in offering work through correspondence courses, and was long the leader in this type of instruction. Correspondence courses similar to those offered today were organized in 1899 by G. C. Watson, professor of agriculture, who remained in charge of this work until 1907, when he was succeeded by Professor T. I. Mairs. As Superintendent of Correspondence Courses, Professor Mairs continued to direct the work until his retirement in 1941, when he was succeeded by Professor W. R. White. Prior to 1907, correspondence courses were the only form of organized extension carried on consecu-

tively by the College up to that time, but in that year Professor Alva Agee was appointed Director of Agricultural Extension, and the scope of the work was enlarged to include other types of extension activity.

With a view to broadening the scope of the extension service, a new departure in this work was made at the instance of President Sparks in the year immediately following his assumption of the presidency of the College. Except for some extension instruction carried on for a few years by the School of Mines and then abandoned for lack of funds, such work had hitherto been confined exclusively to the School of Agriculture, but it was now proposed to expand it to include engineering and mining. In his report to the Trustees for 1909, Dr. Sparks called the attention of the Board to the fact that the old agencies and methods of education must be adjusted constantly to the changing needs of the times, and urged the desirability of taking the College to the people. The work hitherto accomplished in extension by the School of Agriculture suggested to him the possibility of utilizing the resources of other Schools of the institution in a similar way. Returning to the subject in his report for 1910, he again urged upon the Board the expediency of enlarging the extension program of the College. These representations led to the appointment of a committee to make a report on the feasibility of extension work at Penn State and the desirability of broadening its scope. The report of this committee, made in November 1910, serves to illustrate the extension activities of the College as carried on at that time.

The above-mentioned committee stated that extension experiments had been made in the Schools of Agriculture, Engineering, and Mines, but that only in the School of Agriculture had a separate staff been maintained for this purpose. During 1910 this School had run industrial trains over various

railway lines through 40 counties of the State, and lectures had been delivered at 158 stations to 47,000 people. Correspondence courses during the year had enrolled 2500 students in agriculture and domestic science; Farmers' Week at the College had attracted 647 visitors from 57 counties; exhibits prepared for county fairs had been displayed at 11 different places; and more than 300 addresses had been delivered by the instructional staff to some 50,000 people in various parts of the State. The School of Engineering had an apprentice school at Altoona, and had given instruction to a night class in elementary mechanics at Williamsport. A beginning had been made by this School in furnishing correspondence lessons in elementary technical subjects. Several lectures upon the uses of fuel had been delivered in various localities, and educational exhibits had been shown at various engineering conventions in the State. The School of Mines, through its dean, had prepared four lessons in mining topics; these had been printed and distributed through the Mining Institutes of the State Y. M. C. A., and six additional lectures were being prepared for the coming year. Lectures on prevention of accidents and on other practical subjects had been delivered by Dean Crane in the cities in the mining regions.

Having recited these ventures in the field of extension, the committee expressed the opinion that extension instruction was an obligation resting upon a tax-supported institution, and that it was both demanded and feasible. Declaring that a special staff of lecturers and demonstrators was essential for a proper conduct of the work, they urged the desirability of establishing College extension as a separate department, operating with and through the several Schools of the institution, but having its own director, offices, and clerical help. With a view to gathering public opinion on the subject, the report was adopted and ordered printed. It accompanied a bill pre-

sented to the Legislature in the session of 1911, the object of which was to secure an appropriation expressly for extension work, but the measure failed of passage. Dr. Sparks deplored the fact that hitherto extension instruction had been confined almost wholly to the School of Agriculture, and that there was no College-wide organization for carrying on this type of instruction. In his report for 1912, he said: "The College will not have served its full purpose until the extension field is as well and as thoroughly developed as the instructional and experimental fields. These three should constitute the general aim and scope of the College, and should have coordinate rank and value." In 1913 another attempt was made to secure from the Legislature a specific appropriation for extension, and a bill was introduced asking for \$100,000 for this purpose. This resulted in an appropriation of \$20,000 for extension work in agriculture and home economics in the ensuing biennium.

Up to this point we have considered the early and experimental stage of extension instruction at Penn State, noting that it was restricted mainly to the School of Agriculture and that it had hitherto received but meagre legislative support. At this juncture, however, it happened that the movement to secure funds from the Federal Government for extension work, which had long been under way, culminated in the Smith-Lever Act passed by Congress in 1914. This act, whose primary purpose was to foster agricultural extension in the states and to coordinate the extension work of the land-grant institutions with that of the United States Department of Agriculture, appropriated large sums for such work in agriculture and home economics. By the terms of the act, the funds thus appropriated were to be met dollar for dollar by the states which accepted it, as all of them did. This measure not only provided the means but pointed the way for direct

service to farmers and housewives in connection with their immediate practical problems. Though its fundamental purpose is to supply practical information on subjects relating to agriculture and home economics, it further contemplates the enrichment of rural life by raising the standards of rural living; and its success has been due in large part to the cooperation of local communities in the work. The county agent system had already been introduced to a limited extent at Penn State as early as 1912, and in 1913 Professor M. S. McDowell, '92, had succeeded Professor Alva Agee as Director of Agricultural Extension.

The aim of the agricultural extension service is, in large part, to conduct demonstrations which show the application of various methods of procedure designed to bring about the adoption of better practices. With the research work of the Agricultural Experiment Station as a background, specialists familiar with the various phases of agriculture, both from the research and the practical angles, keep in touch with the developments in their several fields of work, and furnish the technical information and inspiration helpful to farming communities. The county agents, or extension representatives, in their turn provide local and continuous contact between the farmers and the College specialists. They organize the farmers into groups, plan demonstrations, and give individual service as far as possible, although the main idea is to serve groups rather than individuals. In each county in Pennsylvania in which such work is under way there is a County Agricultural Extension Association, whose function is to cooperate with The Pennsylvania State College in the conduct of extension work, thereby facilitating the contact of the people with the College. This organization has an executive committee which conducts extension affairs within the county during the year. In 1915 the Legislature passed an act authorizing the County

Commissioners to contribute county funds for extension activities as a means of providing for the necessary local expenses of the county agent, such as office, stenographic help, and travel. Since that time, the counties have regularly appropriated substantial sums to aid in carrying on extension work within their borders.

Inasmuch as the people of a county or a community know their own problems, it is but right that they should not only determine the lines of work to be developed in their respective localities, but should assume an active part in their development. The extension projects are chosen at community meetings or by the extension representatives in agriculture and home economics, who maintain offices at the county seats of all but one of the counties of Pennsylvania. In the 4-H Club work, which is an indirect method of adult education conducted with the cooperation of the junior members of farm families, there are various organized activities in agriculture and home economics. Club-week, State-wide judging contests, leadership training schools, and demonstration team work are also activities conducted by the club leaders of the extension staff. The College publishes numerous circulars and leaflets for use in the farm and home educational program, along with various bulletins embodying practical presentations of recent research.

Under the Smith-Lever Act the subject-matter fields are agriculture and home economics. The main subjects taught in agriculture are animal husbandry, poultrying, dairying, animal diseases, agronomy, horticulture, botany and plant pathology, entomology, rodent pests, forestry, agricultural engineering, farm management, rural organization, and marketing. In home economics the subjects most emphasized are home management, food preparation and preservation, home crafts, clothing and textiles, housing, nutrition, and child

welfare. The teaching procedures in this type of work, being concerned largely with aids to self-directed activity, are less formal in character than those employed in resident instruction. The demonstration method and the personal advisory method have practically superseded the lecture method hitherto in general use. The information gathered from research agencies and from approved farm and home practices is imparted to the farmer and his family through demonstrations, talks at meetings, tours, exhibits, publications, radio talks, news and feature stories, and visual education aids. The extension specialists, the extension representatives (county agents), and the local people all contribute to the development of an effective educational program, which is "built around the needs of the local people as expressed by themselves."

In home economics extension work the economy and efficiency of the home have been the principal objectives, and this service has made an important contribution to Pennsylvania homesteads. It seeks to come into touch with mothers and young women in the homes and to bring them useful information on the various subjects dealing with the home, with a view to improving the environment and to promoting better standards of living. The methods employed for accomplishing these aims consist of lectures and demonstrations, personal visits, contests and exhibits, organization of Women's Neighborhood Clubs and of Girls' Clubs for the study of home problems, and the distribution of circulars and bulletins on subjects of special interest to housewives and their daughters. Miss Pearl MacDonald, a nutrition specialist appointed in 1915, was the first extension supervisor in home economics at Penn State, being succeeded in turn by the Misses Madge T. Bogart, Margaret Brown, and Agnes Brumbaugh. The staff

in this division has increased from 22 in 1923 to 79 in 1943, and now includes three supervisors, two home management specialists, three supervisors of 4-H Clubs, three clothing specialists, two nutrition specialists, one home economics editor, and 65 home economics extension representatives at work in the field. Sixty-three counties are organized with a representative giving all of her time to one county; two are organized with one representative giving half her time to each of them; and there is only one county in the State which has no field representative. The supervisor of this division is subject to the general oversight of Professor J. M. Fry, '17, who succeeded Professor M. S. McDowell as Director upon the latter's retirement in 1942. To carry on the extension work in agriculture and home economics in 1941-42 required the services of 231 full-time and 7 part-time administrators and instructors, financed by a budget of \$886,433.

The results of extension activities in agriculture and home economics have been gratifying, since they show increased efficiency in farm operation, improvement in homemaking, and a more satisfactory rural life. Among the benefits accruing to farmers from this service may be mentioned improvement in the breeding, feeding, and management of livestock; increase of farm income due to improved varieties of grain, proper liming and fertilizing, and improvement of pastures; better orcharding and vegetable gardening; and greater farm and home conveniences resulting from farm sanitation and water supplies, rural electrification, and adjustment and repair of machinery. Further benefits are a wider knowledge of agricultural economics and marketing, an acquaintance with ornamental horticulture conducive to more attractive farm surroundings, and the development of the social side of farm life through instruction in rural sociology. Home economics has resulted in a more skillful management of the

many problems of housewives, thereby enriching the life of rural communities.

Although the extension instruction carried on in agriculture and home economics far exceeds that of the other Schools and departments of the College, being more generously supported by State and federal appropriations, work of this character in the other Schools of the institution is by no means inconsiderable. This is particularly true of the Schools of Engineering, Mineral Industries, Education, and the Liberal Arts, although all of the undergraduate Schools have engaged in extension activities to a greater or less degree. While the same reasons exist for promoting extension instruction in the other Schools of the College as in that of Agriculture, neither Congress nor the Legislature of Pennsylvania has recognized this fact by making appropriations for such work in these Schools, except casually or indirectly. Despite the fact that the manufacturing interests of the Commonwealth alone, to say nothing of mining and trade, are greater than those of agriculture, these interests have been consistently neglected, perhaps because they have no organized pressure group to champion their cause. It is not suggested that agriculture should receive less, but only that the others should receive more.

The Engineering Extension Division of The Pennsylvania State College has as its aim to serve factory, office, and store employees of all grades by seeking to widen their technical training and thereby to enable them to perform their tasks more efficiently. This service is presented through extension class centers, cooperating evening schools under local control, correspondence courses, supervised home study courses for industrial groups, short courses both on and off the campus, publications, and free advisory service for communities or industries contemplating the installation of training, either independently or in cooperation with the College. Through

these several channels, engineering extension courses are so planned as to meet the needs of a wide range of students. Although some work of this character may have been carried on previously, the significant story of extension instruction in the School of Engineering begins in 1910 with the organization of the first extension class at Williamsport by Dean Jackson in cooperation with the Williamsport School Board. The following year an apprentice school was organized in the Altoona shops of the Pennsylvania Railroad Company as an extension agency of the College; and a third extension class was organized in 1913 at Allentown. In 1914 Dean Jackson resigned, leaving James A. Moyer, professor of mechanical engineering, in charge of extension instruction. Professor Moyer secured the cooperation of a number of Y. M. C. A.'s in different parts of the State and proceeded to organize classes, some of which were directly in the industrial plants. Upon his resignation in 1915, the extension work was reorganized with Dean Sackett as Director and N. C. Miller as Supervisor.

During the First World War, extension work in the School of Engineering was practically suspended, but with its re-establishment on a firm basis in 1919 it entered upon a career of progress. Correspondence instruction was inaugurated; and this led to the preparation of the division's own textbooks and to an additional form of instruction known as the "Home Study Plan." Correspondence courses in engineering cover a wide variety of subjects, including technical and business courses, high school or college entrance courses, and college courses paralleling those offered in similar subjects on the campus. Some of these courses are intensely practical, being closely related to everyday work and having an immediate application, while others are offered to meet the requirements of those failing to attend a secondary school in their youth. Other courses are offered on the college level for college credit.

More than 100 subjects are now regularly offered through correspondence instruction by this division.

Not the least important function of the Engineering Extension Division is the promotion of study groups for men in the industries, covering instruction for apprentices, mechanics, office employees, and the administrative personnel, especially foremen. Apprentice training has now become an organized part of every large industry, and the extension department, working jointly with the company's supervisor of apprentices, is prepared to advise regarding the company's program and to conduct classes for this work. One of the most popular and successful features of engineering extension is foreman training, which has grown rapidly within the past two decades. Partly by the lecture and textbook method and partly by the conference method, the department has conducted instruction in foremanship for hundreds of groups in both large and small industrial plants in Pennsylvania. Another form of extension instruction is that of branch schools providing technical training in the cities of Allentown, Erie, Reading, Scranton, and Wilkes-Barre. These schools offer three-year courses of advanced grade, but of immediate and practical value to men in technical positions. In cities of from 10,000 to 50,000 the department will organize classes in diversified subjects, but not necessarily following the pattern of a definite curriculum. It also cooperates with evening schools not directly under its control, but under that of various organizations conducting the schools. An outstanding short course, given on or off the campus, is offered for industrial executives. Various other short courses are offered for intensive treatment of particular subjects in which groups are interested. In 1938 the program of foreman and supervisory training was conducted for more than 2000 foremen and supervisors in 18-session short courses.

For many years the Division has sponsored an annual gathering of representatives from all agencies interested in its service, and this convention has become an institution of recognized value to the industrial training interests of the Commonwealth. It maintains also an advisory service, and is further prepared to aid any industry in developing a course of training to meet its particular needs. Professor J. O. Keller, '13, served as Director of the Division of Engineering Extension from 1925 to 1934, when, upon his promotion to the position of Assistant to the President in Charge of Extension, he was succeeded by Professor E. L. Keller, '25. The Division now has a staff of ten full-time and 68 part-time instructors.

The Division of Mineral Industries Extension at Penn State has developed a broad program by means of which the resources of the School of Mineral Industries are made available to the people of the Commonwealth. As a form of vocational adult education and training, mostly of less than college grade, it aims to equip workers for the effective pursuit of their occupations and to keep them abreast of the constantly changing industrial practices. Extension instruction in mining began at Penn State in 1893, and was the first instruction of the kind carried on in the United States. The demand for this type of work originated from the mine laws and regulations of Pennsylvania, including the certification of all underground officials. Twenty-seven bulletins were published and distributed free for the benefit of the mining industry, and these were supplemented by a series of lectures delivered by members of the mining department to the mining employees. A cut in the legislative appropriation of 1899, however, led to the discontinuance of such extension work for lack of funds.

On the reorganization of the School of Mines and Metallurgy in 1908, consideration was given to the desirability of extending the facilities of the School to the mining districts, and

in 1910 four lectures on mining topics were printed and distributed to some 10,000 miners through the Mining Institutes of the State Y. M. C. A. In the following year six additional lectures were distributed, and an instructor was sent to each institute to review the work at its close. Dean Crane was active throughout 1910 in delivering lectures to various groups of miners in both the anthracite and bituminous coal fields; but thereafter the work declined for some years, being negligible from 1912 to 1919. In the latter year, however, mining extension was reorganized in connection with the State Department of Public Instruction, based on Smith-Hughes funds; and W. G. Duncan was placed in charge of mining extension, continuing to serve in this capacity until 1931. A later agreement was entered into with the State Department of Public Instruction and the State Department of Mines whereby each department used its facilities for organizing and conducting night classes in mining communities. Under this arrangement, the special function of the College mining department was to aid in organizing the classes, to criticize the technical work, and to prepare suitable lesson material. In 1925 Dean Holbrook reported that about 1500 night mining school students were being reached through the extension department.

The significant development of extension instruction in the School of Mineral Industries dates from 1931, when a cooperative working agreement was made with the State Departments of Public Instruction, Mines, and Labor and Industry; and Professor H. B. Northrup was appointed Director of Mineral Industries Extension at Penn State. Under the terms of this agreement, the Division of Mineral Industries Extension became directly responsible for the preparation of all lesson material to be used in the instruction of mineral industries workers in the State, and for the supervision of all class and instructional work, such classes being organized under the

Smith-Hughes plan. This Division is the College medium through which the educational facilities of the School of Mineral Industries are extended throughout the State. By this means the principles developed by research are carried to the people.

Three-year curricula are offered in ceramics, coal mining, ferrous metallurgy, natural gas engineering, petroleum production, and petroleum refining, along with a three-credit course in aeronautical meteorology. The lesson material for each curriculum is prepared by the staff of the extension division, and classes are formed in any community in the State where the demand arises. Correspondence courses offered by the extension division include college credit and non-college credit or industrial courses. Those given for college credit include sixteen courses in such subjects as geology, geography, geophysical prospecting, aeronautical meteorology, climatology, and mineralogy. Industrial courses include 22 courses in the subjects of ceramics, coal mining, metallurgy, natural gas engineering, and petroleum refining. Since 1931, a total of more than 36,358 workers have enrolled in the extension curricula of the School of Mineral Industries. In 1940-41 there were 173 classes in 99 centers in 45 counties, along with correspondence students enrolled from 10 states, the District of Columbia, and Canada. The budget for extension work in this School has increased from \$3000 in 1928 to approximately \$35,000 annually in recent years.

Although a certain amount of extension instruction designed to meet the needs of teachers had long been provided by the College, the organization of a department for this purpose is of comparatively recent origin. As early as 1911 a folder was published and circulated announcing correspondence courses "in continuation of the work begun in the Summer Session for Teachers." The primary purpose of these courses was to en-

able students to complete work begun during the Summer Session and thereby to secure the additional credits required by the State Department of Public Instruction for certification in certain subjects, or to secure credits necessary for entrance to college. When first instituted, these courses were designed for teachers only, though later they were open to all who desired to take them. Beginning with a few courses, the scope of correspondence instruction broadened until it now includes approximately 120 courses. All of these are conducted by members of the regular College faculty and are of college grade, carrying credit. They enroll about 1600 teachers annually, and cover a wide variety of professional and cultural subjects. Like the extramural courses offered in class centers, they are serviceable not only to teachers who want to advance in their profession and to students seeking to eliminate some deficiency, but to others who desire to avail themselves of their cultural content to broaden their education.

Upon the creation of the School of Education in 1923, the extension service for teachers became one of the five administrative units of the new School and was placed in charge of Dr. A. S. Hurrell, who has remained Director of Educational Extension from the establishment of the department down to the present time. First known as the Department of Teacher Training Extension, its name was changed in 1937 to Department of Education Extension. Prior to the creation of this department, however, an extension service had been organized in 1921 to meet the increasing demands of teachers for further professional training, and as a supplementary agency of the Summer Session. With the establishment of teacher training activities as a separate department in the School of Education, the work expanded rapidly. In 1926 Dean Chambers reported that 7700 Pennsylvania teachers were being given opportunities for self-improvement and for earning college credit for a

degree through the teacher training department. Two types of instructional service were offered—extramural courses and correspondence courses. Though intended primarily for teachers, this instruction has always been available for others who may wish to take advantage of its cultural or practical value. The quality and objectives of such instruction are designed to be the same as for resident instruction, adapted to the needs of teachers in the service and of students desiring to satisfy the requirements for a degree. A larger and more diversified program of off-campus instruction is provided than is ordinarily found among the leading educational institutions of the country. In 1927 the extramural division of Teacher Training Extension offered courses in 75 centers, and correspondence instruction offered 90 courses enrolling 930 teachers.

Extramural instruction offers three types of service—extramural courses, supervisory and consultative service, and lecture service. Extramural courses are available anywhere in the State whenever twenty or more teachers wish instruction in the same subject. More than 200 courses are offered, mostly undergraduate, but a few on the graduate level, by this division. Extension classes meet at some convenient center where a sufficient number of students enroll to make the organization of a class practicable. They may be organized at any time during the year, although it is more convenient to start a class at the beginning of a school semester and to complete the work within that semester.

The Arts and Science Extension Division is the agency responsible for the extension service of the School of the Liberal Arts and of the School of Chemistry and Physics. Its first Director was John R. Richards, who served in that capacity until September 1936, when he was succeeded by David B. Pugh, the present incumbent. This Division furnishes class and correspondence instruction in business subjects, mathe-

matics, the social sciences, and other liberal studies; and informal instruction in music, dramatics, and speech, besides furnishing lecturers on a great variety of topics in response to the many requests constantly being made from all parts of the State. While these Schools have always done a certain amount of extension work, it was not until 1934 that the Board of Trustees formally approved Arts and Science Extension, and provided for the organization of this division. The resident teaching staffs of the two Schools embraced in this Division contribute to the extension service of the College by furnishing instructors for the extramural classes, correspondence teaching, and informal lectures. The extramural classes of the Arts and Science Division, located in more than 80 communities in the State, offer instruction on the adult level in liberal arts and scientific subjects. The larger number are of the non-credit type for those seeking cultural self-improvement, but some of them carry college credit. This Division offers approximately 100 correspondence courses, with a wide range of subject matter. Among the services it renders is the program of work offered in dramatics through the holding of dramatic institutes and through lectures and consultative service. Practical assistance in music is also made available to schools, clubs, churches, and other community groups interested in music education, through the agency of a full-time consultant in the Department of Music. This Division further meets a growing need throughout the State for speech correction by means of examinations and conferences, mobile clinics, lectures, consultative service, and advisory cooperation with teachers. Speech clinics conducted by the College have been of special help in small school districts, speech defects being diagnosed and remedies undertaken.

Hitherto, there has been no regularly organized department of extension in the School of Physical Education and

Athletics, although measures are now under way to secure the establishment of such a department. Nevertheless, some extension work has been done by this School through correspondence courses and by holding clinics in baseball, basketball, and wrestling.

In January 1935 the Board of Trustees adopted a plan for a reorganization and correlation of the extension services of the College with a view to increasing their efficiency and avoiding duplication of effort. It was recognized that there were phases of extension instruction which were common to several Schools—a situation which presented certain problems of administration, and led to the creation of the office of Assistant to the President in Charge of Extension on June 9, 1934. This office, to which Professor J. O. Keller, '13, was appointed, is the central administrative unit for the supervision and coordination of the extension work of the College. It is a federated type of organization retaining the various extension divisions already in existence in the several Schools, except for such common activities as may be more efficiently administered by a central office. In setting up the policies governing extension activities under the Trustee Resolution, a statement of principles was prepared and distributed to the deans and other administrative officers concerned by the office of the Assistant to the President in Charge of Extension, also known as the Central Extension Office. It provides that the resident staff of each School shall retain control over all things relating to subject matter taught by extension in their respective fields, such as course outlines, texts, and supplies. In addition, the resident departments have sole authority in recommending all instructors for extension teaching and in determining the qualifications of instructors, subject to the approval of the Assistant to the President in Charge of Extension. The field contacts are made by a separate division, known as the Field Service Divi-

sion, while the actual coordination is accomplished through four methods divisions—the extramural class instruction division, the correspondence instruction division, the informal instruction division, and the undergraduate centers. In order to keep subject matter within authorized administrative groups, the Arts and Science Extension Division was organized. Each of the undergraduate Schools has its own extension unit, whose head is the dean or a subordinate officer called “director.” The Advisory Committee on Extension Services consists of the President of the College, chairman, the Assistant to the President in Charge of Extension, and the deans of the undergraduate Schools. There is also an Administrative Committee on Extension Services, consisting of the Assistant to the President in Charge of Extension, chairman, and the directors of extension in the undergraduate Schools. Professor Edward L. Keller is the executive assistant in the Central Extension Office.

The field representatives are placed in key communities of the State according to a definitely ascertained need for their services based on a study of group and occupational interests; the activities of this division are chiefly of the organization and promotion type. The extramural class division has to do with organizing evening classes in any center of the State in which a sufficient number of persons may be interested in a particular subject. This division includes technical school centers, extension class centers, and extension cooperating centers. The correspondence instruction division offers instruction to both individuals and groups, the latter being taught usually by means of the supervised study plan. The informal instruction division includes short courses, institutes, lectures, visual instruction, community drama and music, educational guidance, club service, radio, forums, and other types of informal education. This method of teaching reaches many thousands of

people who do not take kindly to the formal discipline of correspondence and classroom study in courses of a strictly academic character, being especially attractive to middle-aged adults.

The undergraduate centers were at first placed under the extramural class division, but were soon made a separate division with the supervisors reporting directly to the Assistant to the President in Charge of Extension. A two-year program, at the level of the freshman and sophomore years in college, is offered in the four undergraduate centers located at Altoona, DuBois, Hazleton, and Pottsville. When first established, these centers were at Hazleton, Pottsville, Sayre and Towanda jointly (replaced by DuBois), and at Uniontown (replaced by Altoona). These centers maintain resident standards of admission and instruction, and prepare students to enter college as juniors.

Friendly relations are fostered with chambers of commerce, labor groups, municipal agencies, and other business and industrial groups, by means of informal cooperation. It is further the policy of the College extension services to establish and maintain close working relations with the Federal Government and the State Government. By reason of these several relationships, many calls come to the extension organization for a wide variety of services, which it is always ready to render. Through informal instruction, which is of comparatively recent growth, it is possible to reach community groups of widely diverse social and technical interests "by a new discipline of refreshing inspiration and pleasurable study not hampered greatly by the common university standards." Among those interested in learning new techniques or in improving themselves culturally are adults following many occupations, including the beginner in the shop, the apprentice, the mechanic, the clerk, the foreman in the factory, the busi-

ness man, the industrialist, and even the college graduate. The enrollment in the formal extension classes and correspondence study courses in recent years has averaged around 16,000 students annually, who have received the benefits of these services through the regular courses offered in off-campus instruction. Those reached through the various types of the informal extension services of the College number well over a million annually.

More than one-fifth of all the funds received and expended by The Pennsylvania State College annually goes toward defraying the cost of its extension services. In 1940-41, a normal year before the disturbed conditions induced by the Second World War, the College expended \$1,287,307 in carrying forward its extension program. Of this large sum more than two-thirds, or \$866,433, went to the School of Agriculture, \$199,548 to General Extension, \$107,680 to the Undergraduate Centers, \$51,090 to the School of Education, \$34,707 to the School of Mineral Industries, \$14,283 to the School of Engineering, and \$13,564 to the School of the Liberal Arts and the School of Chemistry and Physics (Arts and Science Extension). This expenditure takes no account of the sum of \$704,520 appropriated by the Federal Government that year to the College for Engineering Defense Training in furtherance of the war effort. If this sum be included, the total amount expended by the College for extension in 1940-41 amounted to \$1,991,827. From these figures may be seen the magnitude of the extension work carried on by the College.

As a State institution supported principally by governmental appropriations, The Pennsylvania State College is meeting its obligation to the State and to the Nation by giving, through its extension services, a direct return to the people who support it by their taxes. Its activities reach hundreds of thousands of people scattered far and wide throughout the

Commonwealth. It ministers impartially both to the rural and the urban districts. It serves the agricultural, manufacturing, mining, commercial, and educational interests of the State in many helpful ways. The extension work of the College is not the well-balanced program that it should be, however, owing to the fact that agriculture is the only one of the major economic interests of Pennsylvania that has received adequate appropriations to carry on its work. The extension program has unlimited possibilities, which can be realized fully only when appropriations for this purpose are made to other and no less important interests in equal measure with agriculture. If this were done, then all classes of the adult population of the Commonwealth desiring self-improvement by this means would be given the opportunity, thereby sharing equally in the distribution of the benefits of government as they share equally in paying taxes to support it. Otherwise, the extension program of the College must continue to be unbalanced. As it is, however, the service rendered is tremendous and has amply justified the outlay which made it possible. There can be no doubt that the extension instruction offered by The Pennsylvania State College has been an important factor contributing to the progress and prosperity of the Commonwealth, and that it is destined to be a yet more powerful influence in the years that are to come.



LATER STUDENT
LIFE & CUSTOMS

IN A PREVIOUS chapter we described student life and customs as these were observed in the Atherton Era, and it is now proposed to tell the story of student life in the later period. The earlier account dealt with these activities in a small college at a time when it had hardly shed its swaddling clothes. Although the student life of that period reflected the immaturity of the College and of the village in which it was located, it had nevertheless a quality of hearty genuineness which gave it interest and charm. The life of the later period represents a more mature stage of institutional development when the College was advancing rapidly in organization and numbers to a university status, and after it had attained that status. These changes naturally exercised a modifying influence upon existing life and customs, as well as giving rise to new observances such as are customarily found in the larger educational institutions throughout the country. Inasmuch, however, as long established customs and attitudes of thought have a way of clinging to life far beyond the time when they have become inconsistent with the existing order of things, changes in student customs hardly kept pace with the growth of the College. Some of these, in fact, which would have been more honored in the breach than in the observance, lingered almost down to the present time. While fundamental student characteristics remain essentially the same from generation to generation, the environment of the campus and of the town

has changed so greatly with the passing years that student life has necessarily undergone radical changes in adjusting itself to the new conditions. The most noteworthy change is the disappearance of the crudity that characterized the earlier period.

Like other leading institutions of higher learning, Penn State has a bewildering number of student organizations. Among these are the fraternities and sororities, the former of which have flourished like a green baytree throughout the whole later period, while the latter have blossomed out in the last two decades. It will be recalled that fraternities were forbidden at Penn State prior to 1887, when the ban was removed, and that there were nine fraternities here in 1905. Since that time the fraternity element in the student body has grown until now there are 47 fraternities and 14 sororities, or a total of 61. In 1920, only seven fraternities owned their chapter homes, the others living in rented houses, but now 45 of the fraternities own their chapter houses. Six of these are on the campus and the remainder in the town, especially in the fraternity house district east of Pugh Street and south of Beaver Avenue. Many of the fraternities here were in existence as petitioning locals for a considerable time before receiving their national charters. The erection of so many handsome new fraternity houses necessarily involved problems of financing, which were met in numerous instances by increasing the size of the chapter. The average chapter numbers between 35 and 40 members; the average pledge class, about 12. The fraternities, by reason of their compact organization, furnish a majority of student leaders, and are influential in promoting College projects. Incidentally, they provide comfortable living conditions for about 40 per cent of the men students in the College. The Interfraternity Council and the Intramural Council direct the policies of the nationals and locals, respectively.

Organized social groups of girls at Penn State began with the founding of Nita-Nee in January 1922, which was followed by the organization of four others within a year. By 1928 the number of women's social clubs had increased to ten, with memberships ranging between 15 and 25. They existed on a purely local basis at first, but in June 1926 were authorized by the Board of Trustees to petition national organizations, and by 1930 four of them had been granted charters. All of the 14 sororities are now national; seven of these have houses on the campus, and the remainder have suites assigned to them in the dormitories. The membership ranges from 15 to 50, the average being about 35, with a total membership of approximately 500. The governing body of the sororities is the Panhellenic Council, which is composed of two representatives from each of the houses.

In 1919-20 the Penn State Club was organized with a view to providing, as far as possible, opportunities for social and athletic activities for the non-fraternity men similar to those enjoyed by the fraternity men. The Club arranges an annual College Amateur Night, an All-College New Year's Dance, and a bridge class; and its teams participate in the College intramural athletic program. In 1939 the Independent Men's Association, which is a member of the National Independent Student Organization, was formed for giving to non-fraternity men athletic, economic, social, and political privileges equal to those that other organized groups possess. It is composed of 12 units numbering approximately 1000 members, or about a third of the men who are not members of fraternities. This organization not only furnishes increased opportunities for its members along social and other lines, but exercises a growing influence in College affairs generally. In 1937 the non-sorority women students established an organization, known as Philo-



THE MAIN GATE

tes, for the purpose of promoting social life and activities among this group.

Besides these organizations, there are some 40 honorary and professional societies at Penn State, such as Phi Beta Kappa, Phi Kappa Phi, Sigma Xi, and Tau Beta Pi. There are, in addition, numerous other organizations, among which may be mentioned the Louise Homer Club (music), Scarab (architecture), Scabbard and Blade (advanced ROTC), and Le Cercle Français. Highly prized by the students is membership in the following campus societies: Lion's Paw (senior activities), Skull and Bones (upperclass activities), Parmi Nous (upperclass lettermen), Blue Key (junior activities), Druids (sophomore athletes), Friars (sophomore athletes), Mortar Board (senior activities women), and Cwens (sophomore activities women). Membership in Lion's Paw, limited to fifteen in number, is considered by the student body the highest honor of its kind to which an undergraduate may aspire. Membership in the campus societies is awarded only to a small and selected group of students who are outstanding in campus activities and have displayed qualities of leadership in College affairs.

Apart from athletics, which is given separate treatment in the succeeding chapter, there is a great array of extracurricular activities in which students may engage. By common consent, the well-rounded student is one who does not devote himself exclusively to his studies after the manner of the bookworm, but seeks rather to participate in activities which make him more human and more well-balanced. By this means he not only finds an outlet for his energies, but develops his latent powers of leadership and oftentimes his peculiar talent in some specialized field of endeavor. The same philosophy which teaches us that every man should have not only a vocation but an avocation would seem to teach us that every student should

have some other interest than his studies to keep his balance true. However that may be, most students need no urging to "go out" for some activity which has a special appeal for them or for which they have a particular aptitude. Anyone wishing membership in a special group activity tries out for that organization when candidates are called, notices of such tryouts being found in the *Daily Collegian*, in store windows, on dormitory bulletin boards, and at the Student Union desk. Among the activities for which such tryouts are held are dramatics, student publications, debating, music, and athletics.

In dramatics there are two organizations—the Penn State Players and the Thespians. The Players constitute a theatrical group composed of students from all classes, membership being based on participation in productions. Those displaying histrionic ability are chosen as members, along with others suitable for technical or publicity positions. Five plays are produced during the College year. The Thespians group, originally presenting straight comedy, has for thirty years or more adopted musical comedy as its primary work. Its membership includes actors, singers, dancers, song or script writers, costume designers, and stage technicians. Two original musical comedy revues are produced each year, the parts being assigned to the performers on the basis of their talents alone.

Nine student publications, covering a wide range of college interests and serving as a review of college life, are issued regularly during the College year. They constitute an important division of the activities group at Penn State, and enlist some of the best talent in the institution. The leading College publication is the *Daily Collegian*, which aims to give complete campus coverage. This paper represents a journalistic evolution from the *Free Lance*, the original College magazine, which was issued monthly but ceased publication in 1904, when it

was succeeded by the *State Collegian*, a weekly; in 1910 its name was changed to *Penn State Collegian*. A decade later it became a semi-weekly, and so continued until 1940, when it became a daily under the name of *Daily Collegian*—one of the nation's leading college daily newspapers. The *Penn State Froth*, dating from 1910 and issued ten times a year, usually on big week-ends, is the College comic magazine representing the lighter side of college life. One of the better known publications of its kind in the country, its contents are chiefly short, humorous articles, light verse, sketches, jokes, and cartoons. *La Vie*, the Penn State Year Book, published by the senior class, gives a complete cross-section of campus activities, clubs, and organizations, along with the history of the class and the records of class members. The *Old Main Bell*, a literary magazine established in 1925, appeared at irregular intervals until September 1939, when it ceased publication for lack of financial support. It was succeeded by *Portfolio*, which features poems, essays, and short stories. The *Student Handbook*, published continuously since 1894 under the auspices of the Christian Association, is an informational book of pocket size prepared primarily for the use of freshmen, but serviceable to upperclassmen as well. The *Penn State Farmer*, monthly publication of the students in the School of Agriculture, was established in 1908. Presenting the latest developments in agricultural research, it has a State-wide circulation. The *Penn State Engineer*, also established in 1908, is a monthly magazine published by the students of the School of Engineering, but frequently contains articles by faculty members and alumni. The *Co-Edition*, a four-page bi-weekly published by the women students, is distributed free to all co-eds. *Discobolus*, a monthly mimeographed publication of the School of Physical Education and Athletics, contains articles on topics of special interest to physical education majors.

The diversified musical program of the College enlists the participation of a large number of students in the various student musical organizations. The Penn State Glee Club is composed of men students chosen on a competitive basis by Director Frank Gullo. Its membership has gradually increased until now it numbers about seventy. It has often performed in the eastern cities, and every year it gives public performances on the campus and also appears in conjunction with other musical and dramatic organizations. The Varsity Male Quartet, composed of four outstanding members of the Glee Club, takes an active part in all the programs of the Club, besides rendering music on special occasions. Hy-Los, a group of twenty selected Glee Club members, is also in demand for special occasions and for Thespian shows. The College Choir, numbering 100 voices, sings regularly at Sunday chapel services, and gives special concerts several times during the year. The College Symphony Orchestra, composed of some 60 members competitively selected from the entire student body, schedules numerous concerts during the year. The Cadet Band, renamed the College Band in 1913, developed into a Military Band of 140 instruments, with members from all four classes of the College. It has a concert section, known as the Blue Band and numbering 75 men. There are also two ROTC Bands—one for the infantry, the other for the engineers.

Another activity of long standing at the College is that of debating. Debating teams for both men and women are chosen by competition, and engage in about 40 debates a year with colleges in Pennsylvania and the neighboring states. The men's debating squad is composed of 30 members; the women's, of 23 members. Both of these debating teams participate in numerous intercollegiate debates, besides joining in several radio discussions during the Summer Session.

Religious activities at Penn State center in the Penn State Christian Association, the College chapel service, and the local churches. The Christian Association, enlisting the active participation of about 1000 students annually and touching the lives of most of the students in many helpful ways, was described in a previous chapter. Chapel services have always been conducted regularly at the College, and were compulsory for both daily and Sunday services until comparatively recent times. Beginning with the fall of 1927, however, daily chapel service was discontinued, but compulsory attendance at Sunday chapel was retained. The compulsory feature of Sunday chapel was abolished in the fall of 1930, but the service was continued on a voluntary basis with excellent results. It will be recalled that Dr. Benjamin Gill served as chaplain from 1899 to 1910, when he was succeeded by the Reverend Robert R. Reed, who served until 1915. For eight years thereafter there was no regular chaplain, although chapel services continued to be conducted without interruption by members of the faculty and by others selected by the College administration. In 1923 the Reverend Fraser Metzger was appointed as full-time chaplain, but resigned after two years' service. For the succeeding three years Wilmer J. Kitchen, General Secretary of the College Y. M. C. A., served as acting chaplain; he was succeeded in 1928 by Professor John Henry Frizzell, first as acting chaplain and then as chaplain down to the present time. More than 1000 students are in attendance regularly at the Sunday chapel service in Schwab Auditorium, where they are privileged to hear outstanding preachers from prominent pulpits and theological seminaries of Pennsylvania and the neighboring states. The College Choir furnishes the music for these inspiring services. Students are always welcome at the local churches, which include the Presbyterian, Methodist, Lutheran, Roman Catholic, Protestant Episcopal, Reformed,

Baptist, Church of Christ, Evangelical, and Friends' organizations, besides Jewish and Christian Science groups holding regular services. Religious agencies working on the campus have been greatly strengthened by the assistance rendered by the student pastors of the town; and many students are actively connected with local churches.

In 1930 was organized the Student Union, whose purpose is to advance the interests of each activity on the campus by serving as a coordinating unit for all extracurricular activities, and by promoting certain objects that could not be undertaken by individual groups. Representatives from each of the major activities constitute the formal membership of the Union Board, although every student engaging in activities is automatically a member of the Union. In addition to the students, the membership includes the Dean of Men, the Dean of Women, the Student Union manager, and two members from the faculty or from the College administration elected for terms of two years. Within the past few years the Student Union office has taken over the handling of the funds of the principal campus publications.

One of the things in which Penn State glories is her splendid system of student government, which originated in the administration of President Sparks and reached its full development in the administration of President Hetzel. The "great strike" of the students in 1905 had repercussions which led the College authorities to make several slight concessions to the students and to pay more attention to student opinion than had hitherto been the case; but the establishment of student government at Penn State is a trophy of President Sparks. It first took the form of the Student Council, but was supplemented in the fall of 1913 by the Student Tribunal, whose function was to try all students accused of breaking College customs. A year later was established the Student

Board with a view to improving relations between the faculty and the student body; and the Honor Committee came into being with the creation of the Honor System in 1915. The most important of these bodies was the Student Council, whose duty it was to pass upon all regulations affecting student government and to originate College customs, the latter being subject, however, to the ratification of the two upper classes. The function of the Student Board was to make recommendations to the Student Council. The Honor Committee conducted investigations of those students accused of dishonesty in examinations and quizzes, but ceased to function upon the abolition of the Honor System in May 1931. President Sparks is said to have regarded the development of cooperative student government as one of his principal achievements.

The government of women students was first under the care of the faculty, but in the fall of 1915 the Women Student Government Association (W. S. G. A.) was formed, operating in the beginning through a Council, which was superseded in 1920-21 by the establishment of the House of Representatives and the Senate. The House of Representatives was composed of members elected by units, each unit being entitled to one member; under this system each cottage was a unit, while the larger dormitories were divided into several units. The Senate was composed of officers elected by all the girls, together with class representatives, the Dean of Women, and a representative of the chaperons of women's houses. There was no connection between the men's and women's student governments other than a spirit of cooperation and occasional common discussions of student affairs affecting both groups. To the Women's Association was entrusted control of women in residence halls, on the campus, in the library, at social functions, on walks and picnics, and at public places in town or in the vicinity of State College, according to the regulations enacted.

Disobedience to these regulations is dealt with by the Judicial Committee, in conjunction with the Senate.

The system of student government thus inaugurated served its purpose well for some years, but with the rapid increase in the enrollment in the administration of President Hetzel a movement started with a view to effecting improvements in the existing system. This resulted in a complete reorganization of the constitution of Men's Student Government in March 1939. The Women's Student Government Association accepted this constitution, thereby uniting all students under one government. This innovation did not cause the men's and women's organizations to lose their identity, however, since they simply joined hands in the All-College Cabinet, which legislates on common problems. Under the new constitution, the separate governments of men and women students, the various School councils, fraternity and independent men's and women's organizations, Student Tribunal, and activities groups were all brought together into the All-College Cabinet—a unifying body immediately responsible to the All-College President and Vice-President. The separation of powers is provided for, with the executive powers vested in the All-College President, the legislative powers in the All-College Cabinet, and the judicial powers in the Student Tribunal. The Cabinet is supreme in legislative matters; the Student Tribunal, consisting of seven members appointed by the All-College President, has power to enforce customs and to serve as a judicial body. Following a federal plan of government, the constitution provides that the problems of students in the several Schools shall be confined to School Councils; those of the men to the men's organizations, and those of the women to the women's groups. Student government at Penn State is thus one of the most advanced and

most democratic to be found in the country, and has worked admirably.

At Penn State, as at other institutions, the students engage in politics with a view to controlling the offices, and sometimes the elections are hotly contested by rival groups. Anybody who, by reason of his class or fraternity affiliations, or by personal influence with the independent voters, can control ten or more votes is likely to blossom out on occasion as a politician and to play the political game for all it is worth. Apart from the desire to secure office for himself or his friends, it's "lots of fun anyway" to be in the thick of the fight and to "whoop it up" for a favorite candidate. There are two well-defined political parties among the students—the Campus party and the Independent party. The Campus party is made up chiefly of fraternity men, but may enlist the support of some non-fraternity men; the Independent party is composed of non-fraternity men. To become a party representative a student must present a paper signed by at least ten of those he represents. Each party names a chairman, a vice-chairman and a secretary to have charge of the semi-weekly or monthly meetings while the campaign is in progress. The chairman appoints the platform, membership, nominating, and election committees, and is the big boss of his party. Both men and women are eligible for office, and, about a month before elections, which ordinarily take place in April, nominees are selected for president, vice-president, secretary, and treasurer. The freshman class is organized by the junior class president in November, and class officers serve until the regular elections in April; the class historian, however, is elected for a four-year term. Under the new student government constitution, all classes within the Campus and Independent parties band together to select their candidates for the All-College offices, the elections for which occur before the annual class

voting. The All-College Presidency is the highest office to which a student can aspire.

With the growth of the College and of the town, living conditions underwent a gradual change until the student life of today bears but a slight resemblance to that of a generation ago. Gone are the good old days when rooms could be had for \$1 to \$1.50 per week, board for \$2.50 to \$3.00 per week, and haircuts for 25 cents, which were the prevailing prices in the Atherton Era. In the growthful period of the Sparks administration everything became more expensive, and this tendency has continued down to the present time. Around 1915, lodging in private houses in the village could still be had for \$2 per week, but rates at the boarding houses ranged from \$3 to \$4 per week. At that time, the total cost of a year in college was estimated at from \$300 (economical) to \$350 (liberal) and \$450 (very liberal), whereas the cost is now about double these figures. Until the middle 1920's Old Main continued to furnish limited dormitory facilities for men, but they had ceased to have the use of McAllister Hall. Penn State has never had dormitories capable of accommodating more than several hundred men; hence an increasing number of men students live either in fraternity houses or in lodgings in the town. Approximately 300 men occupy the dormitory quadrangle included by Watts, Jordan, and Irvin Halls; about 40 per cent live in fraternity houses; and the remainder, a majority, live in rooming houses or with private families in the town. In most private homes the rates for rooms range from \$2.50 to \$3.00 weekly, for two in a room, and from \$3 to \$5 per week for single rooms, depending upon the type of accommodations furnished. Fraternity living expenses, including social fees, range from \$450 a year upward.

The girls on the campus are furnished board in the dormitories and sorority houses which they occupy; but the College,

except for the Sandwich Shop in Old Main and the cafeteria in the Home Economics Building, does not furnish dining commons for men students. There are some fifteen restaurants in the town where students may get meals, plain or elaborate, and most of these are well patronized, the more popular ones being crowded to overflowing during rush hours. The Sandwich Shop in Old Main, capable of accommodating several hundred at one time, is especially popular for midday lunches. The cafeteria in the Home Economics Building, on a much smaller scale, is patronized mostly by women students and teachers who are partial to meals served in rather dainty style and amidst pleasing surroundings. The Corner Room on the ground floor of the State College Hotel, is a favorite eating place in the town for both students and others. As "Co-op Corner" or "the Corner Unusual," it is always crowded around meal times, and is more or less frequented at all times. The fraternities and sororities furnish meals for their members in their own houses, and many students get their meals regularly at boarding houses in the town; but there are perhaps more who patronize the restaurants, of which they are, in fact, the principal patrons. Besides these accommodations, there is on the campus the stately Nittany Lion Inn, well patronized by visitors and by delegates to the many conventions held at Penn State, but not ordinarily in requisition by the students except for formal banquets of one sort and another.

Special arrangements have always been made to furnish suitable living conditions for the women students, who, when their number was small, roomed and boarded in the Woman's Building. As their number increased, McAllister Hall also was turned over to them as a dormitory. With the continued increase in enrollment, especially in President Hetzel's administration, additional dormitories were erected for women—

notably Grange Dormitory and Frances Atherton Hall, and seven houses on the campus were turned over to the sororities for their use. Always, however, their number grew faster than the College could provide facilities to house them; hence it was necessary for some of them to find quarters in the town. The campus dormitories now provide accommodations for approximately 900 women students, and the remaining undergraduate women, to the number of about 800, live in approved houses in the town under the supervision of chaperons and of the Dean of Women. The cost of living in the town is approximately the same as in the campus dormitories, being about \$10 per week for room and board. All women students living on the campus must eat either at Atherton Hall or at McAllister Hall, unless permission is obtained from the Dean of Women to go elsewhere. Girls living downtown have the privilege of getting their meals at the campus dining commons, if they wish to do so.

Students at Penn State avail themselves freely of the opportunities afforded for self-help on the campus and in the town. Men students desiring employment often secure odd jobs through the employment bureau of the Christian Association. Practically all the boarding houses in town use students as waiters, helpers in the kitchen, and for such other work as may require extra labor. Those who wait on tables and assist in the kitchen at meal times receive their board in return. Students do any kind of honest work that may help them to defray a part or all of their college expenses. Some tend furnaces and do general work in private residences; while others work in College buildings, in the greenhouses, and on the College farms. Hundreds of students who could not otherwise attend college are thus enabled to secure a higher education. Self-supporting activities are not confined to men students only, since a goodly percentage of women students also help

themselves through college in this way. Some of these earn their room and board by working in private families, but the larger number do part-time work in offices, stores, libraries, restaurants, laboratories, and other places. It is estimated that in 1939-40 their total earnings amounted to approximately \$35,000.

Students receive substantial assistance in other ways than those mentioned. The College has at its disposal 24 loan funds established by philanthropic individuals, groups, and organizations, half of these being specifically designated by their donors for women students, while most of the remaining half are open to both men and women. Furthermore, there are available for undergraduates numerous scholarships varying in value from \$50 a year upward, including 150 senatorial scholarships; besides a number of scholarships, fellowships, and assistantships for graduate students. Various awards and prizes in the form of cash sums are also available to students of exceptional attainments.

In every college community there is apt to be some place, or places, where the students like to "hang out" in their off hours when neither study nor activities claim their attention, and so it is at Penn State. Here the favorite loafing places are "Co-op Corner" and Graham's store, with the bench in front of it. Co-op Corner, at the corner of College Avenue and Allen Street, facing the main entrance to the campus, derived its name from the fact that in 1905-06 a co-operative bookstore was opened there, at which books, sports clothing and equipment, and other student accessories were sold. Later, however, it ceased to be a co-operative affair, but the name lingered for this particular spot even after the store was moved across the street to the opposite corner and had changed its name to the Athletic Store. The room thus vacated was transformed into a restaurant, which bears the name of Co-op Corner or the

Corner Room. This restaurant, on the ground floor of the State College Hotel, is not only a favorite eating place but also a great hanging out place for the students, who like to congregate there to sit in the booths facing the streets while consuming quantities of ice cream and soda water, and gossiping about the events of the day. On Allen Street, opposite the Corner Room and a little below College Avenue is the candy, tobacco, and magazine store kept for many years by Mr. George T. Graham, who has been a resident of State College for about fifty years. For some years a barber, in 1910 he opened up his store. Well known to all the boys, whom he likes and who like him, he did a flourishing business. He started putting boxes in front of his store for the boys to sit on, and later placed a bench there. Inside the store, students stand around leafing through magazines, munching candy bars, playing the pinball machine, and drinking root beer, discussing the while the latest football game or wrestling match; once outside, they sit on the bench and continue the discussion. An additional service of the store, dating back to its origin, is the posting on the windows the results of games and other information of interest to the students. Other places where students like to loaf between classes are the portico and parapets of Old Main, the elaborate lounges on the first and second floors of Old Main, and the pedestal blocks of the steps leading to the Liberal Arts, Library, and other buildings. If the weather be balmy in the late springtime and summer, they can always recline, like Tityrus, under the spreading branches of the beech-tree and write sonnets to the eyebrows of Belinda. Student life at Penn State is not without its compensations.

Except for those diversions found only in cities, the students at Penn State enjoy all the social life and activities customarily found in similar institutions. The social events around which centers the greatest interest are the Senior Ball,

Junior Prom, Sophomore Hop, Interfraternity Ball, and the fall and spring House Parties. Besides these more formal events, coming at fixed intervals throughout the year, there are numerous informal dances, banquets, parties, smokers, and other get-togethers of one sort and another to meet the social needs of the students. Then there are the constantly occurring big athletic events in all the major sports taking place on the home grounds at week-ends, not to mention the intramural sports and a varied assortment of recreational activities. Nor should we forget the performances of the Thespians and the Penn State Players, the movies, the Artists' Course, and the concerts of the various musical organizations. For the more serious-minded students there is an almost continuous round of cultural and informational lectures by members of the faculty and distinguished visitors, offered throughout the year and generally well attended.

Student customs at Penn State, especially those imposed upon freshmen, have undergone a considerable modification as the institution emerged from the immaturity of a small college to the status of a university in organization and numbers. The development of extracurricular activities gave the students other things to think about and other channels through which to direct their youthful energies, with the result that there has been a diminishing emphasis on the duty of sophomores to make life miserable for the freshmen. Customs, as observed by freshmen in the Atherton Era, remained much the same down to about 1912-13, when they were revised according to current student opinion in the matter. Class customs required freshmen to wear small, green skull caps ("dinks"), to keep off the grass at all times, to attend all class meetings, athletic meetings, and mass meetings, to refrain from calling upon or conversing with young women, from smoking in public, from carrying canes unless they de-

feated the sophomores in the interclass football game, and from answering back to upperclassmen when being instructed by them. Furthermore, when an athletic victory was celebrated, freshmen were required to carry fuel for the bonfire, especially if said fuel was obtained by tearing up the board walks in front of the houses of faculty members. Sophomores might parade around the athletic track between the halves of the varsity football games, but were not permitted to kick the ball on the field between halves, nor could they wear caps or hats bearing numerals until after Easter. Only seniors were permitted to go bareheaded or to occupy the benches on the campus, and only seniors and juniors could walk on the front campus. These may be considered as the class customs of the Sparks Era.

In the 1920's class customs were further modified. Sophomores were now allowed the use of the front campus, along with seniors and juniors. Sophomores or freshmen were not permitted to go without coats except when engaging in class scraps, or on stunt night, or on the night of the first meeting of the freshman class. Freshmen were required to wear black ties and dark-colored socks, and to keep their coats completely buttoned in public. They were forbidden to linger in the vicinity of Co-op Corner, or to associate with girls within a three-mile limit of Old Main, except during house-party periods or when attending authorized dances. They were further forbidden to use the front entrances of certain buildings on the campus; and were required to carry matches at all times and to furnish them to members of the three upper classes upon request. Customs, as observed during the Hetzel administration, require freshmen to carry on their persons a copy of the *Student Handbook*, to wear dinks and black ties, and to refrain from associating with co-eds within a three-mile limit of Old Main until after Thanksgiving vacation. They must oc-

occupy the east stands at football games, must learn all the College songs appearing in the *Handbook*, and must know the names of the pictures currently playing at the movies. Freshman customs were to be observed until Move-up Day, around the first of May.

The Class of 1909 was the first to wear a freshman dink. The first Dad's Day was held on Saturday, April 9, 1921, the principal events of the day being a baseball game, a mass meeting, a smoker in the "Y" hut, and a free play in Old Chapel entitled "Back to the Farm." May Day is an old ceremony at the College, but only since 1922 have the exercises been held outdoors; prior to that time, the May Queen was crowned in McAllister Hall. This celebration is now the central feature of Mother's Day. The name "Pennsylvania Day" still lingers for one of the big week-ends, but is no longer observed according to the original idea of a substitute for Founder's Day, with the Governor and other celebrities in attendance. The first Move-up Day in the history of Penn State was observed May 15, 1925, when the seniors blossomed out in their white lion suits, the juniors in their blazers, and sophomores and freshmen took a step up in customs after the under-class tug-of-war.

The life and customs of the women students at Penn State have always had a distinctive quality that calls for special treatment. For a long time the girls were but few, and their customs were regulated by the faculty under the immediate supervision of the lady principal. In 1911-12, they numbered only 50, and it was not until 1914-15 that their enrollment reached 100, whereas at these dates the men students numbered 1811 and 2423, respectively. In 1915-16, when the girls numbered 160 and had branched out from the Woman's Building to occupy also McAllister Hall, the Women's Student Government Association was organized; thereafter it pre-

scribed the customs to be observed by women students. For a decade or more their privileges were much restricted, though tending to become more liberal as time passed. "Quiet hours" were maintained in the dormitories practically all the time except around meal times, Friday evenings, and Saturday afternoons and evenings. Girls were required to be in their dormitories by 10:00 p.m., at which time the doors were locked. The telephone could not be used after 8:00 p.m., and there was an elaborate system of registering before leaving the building. Only seniors could walk off the campus with a man unchaperoned, and only they could attend athletic events at night with men. Girls might eat downtown at approved eating places after a special College dance, but must be in the dormitory not later than a half hour after the dance was over; hence it was a case of "eat and run," which often necessitated "making tracks fast" to get to the dormitory on time. Freshmen wore three-inch hair ribbons tied in a bow in front, held doors for upperclassmen and faculty, performed telephone duty, and kept off the grass in front of Old Main. But few extracurricular activities were open to women students in those days. Athletic attempts were restricted by limited use of the Armory and by lack of equipment; but after 1921, when a physical instructor was put in charge of women's athletics, the girls began to organize class teams of basketball, tennis, hockey, baseball, and track.

As time passed, customs regulations were considerably relaxed, particularly in the past decade. All girls at Penn State continue, however, to be subject to the Women's Student Government regulations. For Senior Ball, Junior Prom, Sophomore Hop, and the fall and spring House Parties, they may now remain out of the dormitories until 3:00 a.m., and seniors may now have dates both during the week and on Sundays until 11:00 p.m. Freshmen, though strictly limited as to hours

to be observed for dates, have many more privileges than formerly. They are required, however, to observe a year's College customs. Regulation freshman ribbons must be worn until the bonfire sing, the time of which is set by the Judicial Committee. They must keep off the grass (excepting Holmes Field) until Move-up Day, and must hold doors for upperclass women and faculty; and must attend all football games, but have no football dates except during House Party. Girls with deficient scholarship are restricted socially at the discretion of the Education Committee of the Freshman Council. In recent years there has been a gradual shift in the W. S. G. A. from the imposition of rules to the setting up of standards of conduct. There has also been an increased participation of girls in general College activities; they now hold staff positions on *Froth*, the *Daily Collegian*, and *Portfolio*, besides being regularly on committees and boards for various general College projects.

With respect to freshman customs, whether for men or women, it may be said that they are not only less numerous and less rigid than formerly but that they are not strictly enforced, especially as regards the men students. Whereas, in the old days, sophomores regarded seriously their duty to enforce freshman customs, they no longer bother too much about it; while the juniors and seniors are benevolently neutral or tolerant about the whole matter. The fact is, that the College has really outgrown these things, though some of them linger as relics of the past, outmoded though they are. Most of these customs are sheer tomfoolery and are so recognized by the more responsible student element, which is more concerned with promoting the finer ideals and traditions of the institution. This element, placing the emphasis on scholarship, intellectual independence, and thoroughgoing culture, is little disposed to sympathize with the small group of students who

think it is manly to frighten freshmen with paddles or to besmear their heads with molasses.

The old class scraps of the Atherton Era and the early Sparks Era are no more. The flag-scrap, the cider-scrap, the picture-scrap, and the push-ball scrap were abolished by vote of the student body in 1916-17; and the tug-of-war and the tie-up scrap were substituted for them, but lasted only a few years and then ceased to be observed. Poster Night was discontinued in its original form, though proclamations continued to be posted until about 1930. Stunt Night, in which all the freshmen were called out and marched to Beaver Field to undergo ordeals of various sorts, lasted until about 1931. The Pajama Parade, which was supposed to take its place, led to so many broken windows and other damages to the property of the townspeople and of the merchants that it was put under the ban by the students themselves around 1937-38. These things, along with student rioting in the town after the pep rallies in the fall, have practically all died out, though they still live in the memories of the alumni.

Penn State is not old enough to have accumulated a wealth of traditions such as institutions founded in the seventeenth and eighteenth centuries possess. Nevertheless it has its traditions, although these are not sufficiently ancient to attach to themselves the legendary qualities which are always interesting even if not always true. Most of these do not antedate the College days of the older alumni now living, but enough of them exist to illustrate the distinctive individuality of Penn State. The earliest and noblest tradition of the College is that of the ideals of its founders, who sought to establish an institution dedicated to a more practical kind of education than the type then prevailing—a people's college adapted to the needs of the common man and within his reach. Throughout the entire history of Penn State the dominating motive of those who

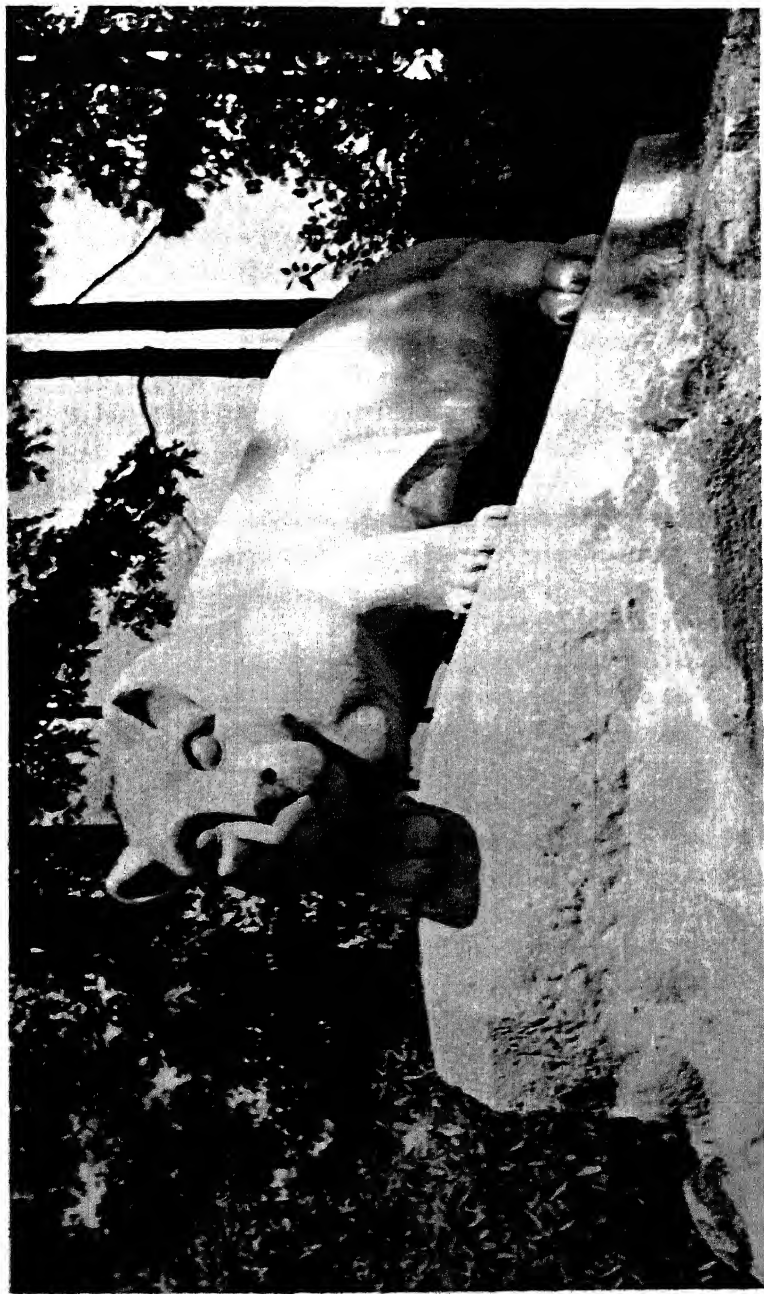
have shaped its policies has been to render the greatest possible service to the people of the Commonwealth, and this tradition "still lingers as at least the background of the institution of today." Traditions grew up also around certain personalities who loom large in the history of the College—Presidents Pugh, Atherton, and Sparks; Trustees Watts, McAllister, and Beaver; and Professors Armsby, Pond, Buckhout, Frear, Pattee, and others—of whom it may be said that, though they have passed from the scene of their labors, they are not forgotten, and their works do follow them.

There are also certain student traditions, cherished by the alumni and not to be overlooked in the story of the College. Among the finest of these are "Alma Mater," the College song, and "Daddy Groff," Penn State's representative in China. The story of how Professor Pattee came to write "Alma Mater," and its place in College life, has already been told; but it is in order to describe the no less distinctive Penn State tradition of "Daddy Groff," as he is affectionately known to the student body. George Weidman Groff, '07, was an outstanding student of the College, who, a short time after graduation, became an instructor in Canton Christian College, China. At a mass meeting in 1911, he was adopted by the students as their representative in this Chinese institution, now known as Lingnan University, where for many years he has served as the Director of their School of Agriculture. The Penn State student body and the faculty have regularly cooperated in supporting this enterprise, which is maintained by College chapel collections and some personal contributions. One of the most cherished traditions of the College is what is called the "Hello Spirit" characterizing the students, illustrating the feeling of mutual comradeship pervading the institution. This attitude is due in part, no doubt, to their common life together in a place peculiarly isolated from outside influences,

in part to the program of extracurricular activities in which all share, and in part to the democracy which has always prevailed here. Penn State has never been a kid-glove institution, and takes but little stock in stuffed shirts.

Beginning with the class of 1904, it became the custom for each class to leave behind some memorial of itself in the shape of an improvement of some sort, or of a fund for a specific purpose. The memorial of the class of '04 was the clock in the tower of Old Main. Some of the other memorials are the retaining wall of the front campus, the mason work of the main college entrance, the pipe organ and the grand piano in the Auditorium, the old wireless tower, the campus and entrance lights, the terrace in front of the original Old Main, the Westminster chimes in Old Main, the mountain lodge, the mural in new Old Main, and the Lion Shrine. Other classes have put their contributions into funds of various kinds to be expended for the College good. There are some fine athletic traditions of the College, which will be described in the succeeding chapter. Nor should the "Victory" song of James A. ("Jimmy") Leyden, '14, be forgotten. Both the words and music of this song were composed by Leyden, and it was sung for the first time in the fall of 1914 at a mass meeting previous to one of the big games. Another favorite College song, composed by Leyden in 1920, is "The Nittany Lion." These are second in popularity among the students only to "Alma Mater." Traditions which linger in the minds of the older alumni are those of the Junior Oratorical Contest and the Literary Societies, which flourished vigorously in other days but have long ceased to exist except in the memories of the alumni.

The Nittany Lion emblem, treasured by Penn State students throughout the years, dates from 1906, when the baseball team played Princeton on the latter's diamond during the Commencement exercises. Some members of the Penn State



THE NITTANY LION, Heinz Warnecke, Sculptor

team, who were being shown around the Princeton campus, noticed at the entrance of the gymnasium two tigers imported from Philadelphia for a class reunion, and these, the traditional symbol of Princeton, suggested to them the idea that Penn State should also have an emblem. It further occurred to them that, since a lion is more formidable than a tiger, it would be a proper emblem for the College. Since then the lion has been the symbol of Penn State and of Penn State teams, although the famous Nittany Lion is the mountain lion and not the African variety. The Class of 1940 gave the Lion Shrine in front of the Water Tower adjoining Beaver Field—a splendid piece of statuary, sculptured by Heinz Warneke and dedicated with appropriate ceremonies on October 24, 1942.

There is the tradition of the cannon in front of the Armory, dating back to about 1870 as a part of the military equipment of the College. These were always used in early times for salutes when the Governor or other distinguished visitors came to the campus; but they offered such a tempting opportunity for student pranks that they were dismounted and filled with cement to prevent further escapades. Though they could no longer be fired, students continued to have fun with them by turning them over, painting them red, or hauling them by a long rope to some spot on the campus where they did not belong. They varied in number at different times from one to four, though two seems to have been the favorite number. Finally, when there was but one left and the government was calling for scrap iron in the Second World War, the College turned it in to aid the war effort, red paint and all.

The practice of painting class numerals on the tower of Old Main originated in 1902 when the Class of '04 daubed its numerals on the tower, thereby starting a custom which was regularly followed for some years, the devices varying as each

class tried to outdo the others. On one occasion the flagpole on Old Main was decorated with a huge device representing the Nittany Lion. Finally, when it was found that it was too dangerous to paint devices or to erect emblems at such high altitude at night on the dome or the flagpole, this particular practice ceased so far as Old Main was concerned. The scene of action then shifted to the Armory roof, which was decorated with huge numerals; but this custom was also discontinued after a time.


Another tradition of the College is that of "Parker's boat," which was the name given to the train on the Bellefonte Central Railroad—a rambling, narrow-gauged affair of the huckleberry variety, connecting Bellefonte with State College. The early conductor on this railroad was a man named Parker, a friendly soul beloved by the students. On one occasion, soon after the road was built, Parker tried to run his train along a section of the track that had been flooded by a spring freshet, but stalled his engine and marooned the passengers. Thereupon the students dubbed the train "Parker's boat," which was, after all, not altogether inappropriate since a sort of seasickness on it was common. Parker and his "boat" became a tradition, each succeeding class down to about 1920, when the Bellefonte Central Railroad practically ceased to be used for passenger traffic, having a series of tall stories to tell about Parker and the haps and mishaps of the "voyage" from Bellefonte to State College.

Traditions have clustered around some of the physical landmarks of the College, particularly the original Old Main, which for so long a time embraced within its walls practically all the activities of the institution. Old Main is rich in memories, traditions, sentiment, and is beloved of the alumni who roomed, boarded, studied, and attended classes there; and many were the student pranks perpetrated within its pre-

cincts. Condemned at length as unsafe, it was torn down to make way for the new Old Main, built on the same site and of the same stones as those of the original structure, and preserving the same general lines—a stately building, but devoid of the sentiment inspired by its predecessor. Another campus landmark was the “Old Willow,” planted by Professor Waring in 1858, and also rich in memories. Standing on the main driveway of the front campus near the junction with the walk leading to Old Main, and growing to majestic proportions, it became a revered symbol of the early days. It was blown down in a storm on August 2, 1922, but a cutting from it was planted and dedicated, and has since grown into a tree of fair proportions, thereby preserving the tradition of the Old Willow. The “Ghost Walk,” a sort of lover’s lane, composed of Norway spruce and Austrian pine from Professor Waring’s nursery, was removed in 1929 since the trees were beginning to decay; but is still fondly remembered by hosts of alumni. Another of the ancient landmarks on the campus which lingered long and around which gathered much sentiment was the “Old Garden” planted by the students in front of the present Zoology Building in 1862, under the supervision of Professor Waring.

The town of State College has grown as the College grew, and in like degree. It is a college town, pure and simple, and there has always been a remarkable correspondence between the student population and that of the borough. Prior to 1920, the students habitually outnumbered the residents of the town, but since that time the reverse has been true. In 1940, when the students on the campus numbered 6160, the population of the town was 6400, making a total of 12,560, which has since increased. As the physical plant of the College became more extensive, so also did the town, which has consistently kept pace with the College. Having no industrial plants, with

their accompanying noise, smoke, and grime, the borough of State College is one of the cleanest, most beautiful, and most delightful towns to be found anywhere. It becomes more attractive with each passing year, with constantly improving streets, residences, and business structures. The town is well supplied with churches, schools, and all the various organizations of a progressive community. There is also an excellent moral, social, and cultural atmosphere about the place, along with a commendable civic pride, while a friendly and cooperative spirit exists between the town and the gown. Like the College, the town is doing very well; and in the future, as in the past, both of them may be expected to prosper as they go hand in hand along the pathway of progress.



*PHYSICAL TRAINING
AND ATHLETICS*

INASMUCH as no extracurricular activity of the College has enlisted the interest of the students and of many of the alumni to a greater degree than has athletics, it would seem that a well-rounded story of college life calls for more than casual treatment of this subject. This is especially true when it happens, as is the case at Penn State, that athletics are construed to include not merely the development of teams to compete in intercollegiate contests, but as a means of promoting student health as well. Physical training is regarded as a part of the student's education, and its main objective is to turn out physically fit graduates. Such training, helpful to the student while in college and also in after life, enables him to use to the best advantage the mental discipline gained in the classroom. These considerations have found expression at Penn State in a practical program of physical training, which had long been contemplated but has been put into practice fully only within the past two decades. This program is carried out partly by means of the College Health Service and by required courses in health and physical education, and partly by a carefully worked out plan of intercollegiate, intramural, and recreational athletics. Its more formal aspects have been considered in connection with the description of the School of Physical Education and Athletics, and it is now proposed to direct attention to the origin and development of athletics at Penn State as an extracurricular activity of long standing.

For a decade or more after the founding of the College there appear to have been no sports whatever at Penn State, and hardly any prior to 1875. The enrollment was small in those days, and conditions did not favor the development of athletics. The students were required to perform three hours of manual labor daily and had but little superfluous energy left for indulging in sports. Furthermore, no grounds were set aside for athletic activities, and the isolated location of the College was a hindrance to the promotion of intercollegiate contests. Finally, it was not until about 1875 that there was any particular development of athletics even in the older colleges and universities of the country. The first reference to athletics found in the faculty minutes is that of March 16, 1866, when the students were granted the use of a small piece of ground for an outdoor gymnasium, described by Arthur B. Gram, '70, as "composed of a horizontal bar, parallel bars, and a swing with seats and one with rings, located in the open in the near grove at the back of Old Main." The early faculty minutes contain occasional references to baseball, which was the first sport to be indulged in at the College. In June 1866, permission was given to the "Union Baseball Club" to play in a match game with Lock Haven on the Fourth of July, the first such contest of which there is any record. In March 1871, the students were allowed "the use of as much of the college grounds as may be needed for a baseball ground," and were further permitted to accept a challenge from the baseball club of the Bellefonte Academy, "the game to be played here and the club to dine at the college table."

All the early baseball games were with local clubs, such as Bellefonte, Lock Haven, Boalsburg, Philipsburg, and Williamsport. One of the most memorable of the early games with local teams was that with Milesburg in 1875, from which time may be dated the regular baseball organization at Penn State.

John M. "Monty" Ward, Frank Knoche, and Charles J. Shee were the promoters of this first organization. They secured permission to use a field northeast of Old Main, and employed their spare time putting it in order and training a team. The uniforms consisted of white with light blue trimmings, the stockings being of alternate bands of blue and white. The game was lost to Milesburg, however, by a score of 20 to 28. Ward, who was a star player, both as pitcher and shortstop, is one of the traditions of Penn State, as of baseball the country over, later becoming captain of the New York Giants. He is credited with being the first pitcher to deliver a curved ball. The story is told that Professor Buckhout doubted that a ball could be curved, and that Ward, in order to convince him, put up stakes and curved a ball around them. He was the first Penn State man to become nationally known as an athlete. The first intercollegiate game was with Bucknell at Williamsport in June 1882, and there does not seem to have been another until 1889. In the interim, however, Penn State continued to play local baseball teams, developing some very good players. Among these were C. C. "Tuffy" Chesney, '87, Marcus E. "Mike" Baldwin, '85, and J. C. "Jeffy" Mock, '90. Baldwin later became one of the renowned pitchers of the Pittsburgh National League team, and accompanied Anson's All-American team in its tour around the world.

Meanwhile, a beginning had been made in football at Penn State. As early as 1870 the students indulged in kicking a football around on the campus—a practice apparently not approved by the faculty, since that sedate body passed a resolution in May 1878 forbidding the playing of football nearer the building than "the other side of the ellipse." There is no further reference to football in the faculty minutes until November 1881, when "a committee of students from the football club asked permission to visit Lewisburg in order to

play a game of football with Lewisburg University (Bucknell)," which request was graciously granted and the game was duly played. Since this was the first excursion of Penn State into intercollegiate football, a few details of the game are in order. Strenuous practice was instituted, blue and white were adopted as the College colors, and a College yell was composed (contents unknown). The game, which was played at Lewisburg in a drizzling rain on the morning of November 11, 1881, resulted in a victory for Penn State, 9-0. I. P. McCreary, '82, acted as referee, J. G. White, '82, as umpire, and G. C. Butz, '83, as scorer, and the star performers were G. S. Chadman and R. M. Foster. The news of the victory was broadcast at State College by writing the score on a big sheet of paper and tacking it over the delivery window of the postoffice. A contemporary account in the *Bucknell Mirror* described the Penn State team as "well uniformed and disciplined, whereas our boys, although having considerable practice, were not up to all their dodges." Football at Penn State, however, did not become a regularly organized sport at this time, and there is no record of other intercollegiate football games until 1887.

Such were the beginnings of athletics at Penn State prior to the period of organization and development which got under way around 1887. Up to this time athletics at the College had been casual and intermittent. With no athletic organization, and no facilities, equipment, and schedules of consequence, everything had proceeded in haphazard fashion, depending upon the initiative of a few individuals; and there was no planned program. Furthermore, the time had not yet arrived when the teams could count on active alumni interest and backing. A marked change for the better was in the offing, however. As has been noted in another connection, the year 1887 was a sort of turning point in the history of the College from which may be dated its expansion in many directions,



THE FIRST VARSITY FOOTBALL TEAM, 1887

Back row (left to right): Cleaver, coach; Jackson, Mitchell, Mock, Lensz, Morris, manager.

Front row: Barclay, McLean, Weller, Kessler, Hildebrand, Rose, Leyden.

including athletics. With the growing interest in athletic sports taking place throughout the collegiate world about this time, Penn State caught the fever along with other colleges. Class teams and other group-teams stimulated interest by playing campus games, and fraternities helped to develop the athletic spirit. Unit contests between group teams supplemented fraternity contests and aided in developing material for the varsity teams. This situation led to the recognition of the need for an organized system of athletics to arrange for intercollegiate contests, to provide the necessary expenses of the teams, and to furnish better facilities and equipment, resulting in the organization of the athletic association.

Information regarding the first athletic association at Penn State is meagre. It seems to have been organized in 1888-89 with the usual list of officers and committees, but with no alumni committee and no graduate manager. Under these conditions it did not function efficiently, tending rather to deteriorate from year to year. One of the most serious handicaps was the lack of financial support. When a team left the campus in the 1890's to play in an intercollegiate game, its expenses were commonly met out of the pockets of its members, supplemented by subscriptions from the faculty and the townspeople. Sometimes money was borrowed from the professors or from the merchants of the village. No admission being charged at the home games, it was customary to pass around the hat, but the cash received from this source was always disappointing. On various occasions, funds were raised by the managers of the teams by giving a masque ball or other benefit performances, the proceeds of which were devoted to athletics. Presumably, if a man aspired to be manager of the football or baseball team, it helped his chances of appointment if he happened to have a well-filled pocket-book and was disposed to be generous. At any rate, his ability as a

money-getter was a prime consideration in his selection for the position.

Despite the difficulties encountered in the 'nineties, some progress was made in this period. Not only had baseball and football become regularly organized sports engaging annually in intercollegiate contests, but track and basketball had been inaugurated as sports in 1891 and 1896, respectively. The growing interest in athletics and the increasing participation in intercollegiate games led to the establishment of better athletic facilities. The original "athletic grounds" were located between the present Pond Laboratories and the New Botany Building, where a temporary grandstand was erected in 1889. In 1891 a legislative appropriation of \$15,000 was used to effect improvements on the athletic grounds, renamed Beaver Field. When completed in the fall of 1893, the improvements consisted of a quarter-mile of track, within which were placed the football and baseball fields and several of the tennis courts. At this time also a grandstand was erected with a seating capacity of 500; it had a projecting roof, was painted blue and white, and had three flagstaffs.

While these improvements were going forward, Penn State was admitted in 1891 into the Pennsylvania Intercollegiate Athletic Association, mainly through the initiative of J. Franklin Shields, '92, manager of the football team that year. Promptly thereafter track developed considerably as a sport, full advantage being taken of the improved facilities. While it was many years before golf was made an intercollegiate sport, it nevertheless appears that the game was played at Penn State in the 'nineties. Prior to 1890 and presumably in 1889, a golf club was organized and a course was laid out on the campus, becoming a nine-hole course in 1891. Inasmuch, however, as further reference to golf in this era is lacking, it would appear that the movement lapsed soon thereafter because of

the unsuitable location of the links and of the lack of funds for constructing a real course.

Meanwhile, the Trustees had authorized the employment of a Director of Physical Training, and in January 1892 George W. Hoskins was secured for this position. A trainer rather than a coach, Hoskins was a hard worker and was popular with the students. He did some coaching, however, and for several years played center on the football team, as was done by other colleges in this era. Hoskins was succeeded in 1895 by Dr. S. B. Newton, who is remembered as the man who developed the placement kick at Penn State, though he never played on the team. Newton bore the title of Director of Physical Education, and, beginning with 1897, we find for the first time, in the reports of the presidents, reference to what is regularly described thereafter as the "Department of Physical Education." In 1900 Newton was succeeded as head of this department by W. N. Golden, who served in this capacity until 1912.

The story of athletics at Penn State in and around the eighteen-nineties would not be complete without including in the narrative a few of the sidelights and incidents of that colorful period, dear to the hearts of the older alumni still surviving. In 1889 the football team made a trip east in November to play Lafayette and Lehigh, taking along twelve men, one of whom was an instructor in the Preparatory Department. Defeated by Lafayette on Saturday by a score of 26-0, several members of the team suffered injuries—notably C. C. "Pope" Hildebrand, '92, who played the game in his tennis shoes and hurt his ankle. After the game, several of the players went to Philadelphia over Sunday. When the game with Lehigh was called on Monday, only nine of the Penn State boys were present, several of them not arriving from Philadelphia in time to play the first half, during which the score was princi-

pally made—and what a score! The boys were worn out, had had no training to speak of, and were in no condition to play. To add to their troubles, they saw blocking for the first time and didn't know how to meet it. The result was a Waterloo for Penn State, Lehigh winning by an all-time high of 106-0. When the boys returned from this humiliating experience, they were so ashamed of themselves that they got off the bus at Sauertown and came into State College on foot, so they wouldn't meet anyone. This game was the worst defeat administered to Penn State in its athletic history, and as such it is recorded. It was bad at the time, but now provokes only a reminiscent smile from the alumni who recall it.

Another game, long remembered by certain of the alumni, was the one played with Bucknell in the fall of 1891. The Penn State boys, feeling confident of victory, got together all the money they could lay their hands on and bet freely on the result. The game went well the first half but not so well the second half, the final score being 12-10 in favor of Bucknell: postscript—times were hard at Penn State for quite a while thereafter. The following year, when there was no betting, the score was 18-0 in favor of Penn State; such is the irony of fate. In 1894, when we played the Navy, Captain B. F. "Big" Fisher and W. B. McCaskey had worked out a trick play which they felt sure would win the game, and, with this in mind, our boys again bet freely on the outcome. Unfortunately, however, the hard-hearted referee would not permit this play, and the boys thought they were doomed. However, as luck would have it, the score was a tie, 6-6; and no money changed hands. In 1899 the Penn Staters thought they had a very good team and scheduled a game with Yale, expecting to win. They were disappointed, however, for when the telegram came from manager Rolland "Kid" Diller, '00, this is what it said: "Yale 42, State 0. The team played well." The words

“the team played well” became a slogan long remembered at Penn State.

In the ensuing decade, 1900-1910, athletics at the College assumed a more favorable aspect, owing chiefly to the reorganization of the Athletic Association. The new constitution, framed in 1898-99, provided for an advisory committee of three members charged with a general oversight of athletics. The first members of this committee were George R. Meek, '90, J. P. Jackson, '89, and Louis E. Reber, '80. The constitution did not meet the situation, however, since there was no provision for a graduate manager; hence the management of athletics continued to be left largely in the hands of the undergraduates, with the employment of coaches by the College and the Athletic Association jointly. Despite its faulty organization, athletics made progress in this period, with a rising reputation of Penn State in the intercollegiate field. This improvement was due mainly to the work of W. N. “Pop” Golden, Director of Physical Education, who from 1900 to 1912 devoted himself to building up the physical condition of the entire student body and to the training of athletic teams; by 1903 the Department of Physical Education had come to play an important part in student life at the College. Golden was assisted by Fennell and Hollenback as coaches of football, and by W. E. “Doc” Lewis in charge of wrestling and gymnastics, while he himself coached track.

The erection of the Track House in 1903 provided additional facilities for athletes, together with comfortable dormitory accommodations. Built with funds subscribed by the alumni, it served to house many Penn State athletes until 1924, when it was replaced by Varsity Hall. Its facilities included not only living quarters, but locker rooms, shower baths, and a training table. On May 7, 1909, New Beaver Field was dedicated; and thereafter all varsity games were

played on this field, although Old Beaver Field continued to be used until 1924 for varsity practices and for freshman games. In 1909-10, facilities were improved by providing a new locker building and a new outdoor gymnasium and playground. Other significant developments calculated to improve the general athletic situation around the turn of the century were: the establishment of athletic scholarships, and the decision to charge each student an athletic fee of five dollars.

The *La Vie* of 1907 refers to the fact that in the preceding twenty years, in the four principal sports of football, baseball, basketball, and track, Penn State teams had met 36 college opponents in a total of more than 300 contests and had won almost two-thirds of these. Notwithstanding this creditable record, it was recognized that the athletic organization was defective, being still under the direction of student managers and committees. This situation led to a revision of the constitution of the Athletic Association in 1907-08, from which time may be dated a new era in athletics at Penn State. The new constitution provided for the appointment of a graduate manager of athletics and the establishment of a permanent athletic office. The graduate manager was authorized to assume control over student managers, finances, and intercollegiate schedules. George R. Meek was elected to this position and remained in office until 1910, when he resigned because of the increasing demands of his business at Bellefonte. He was succeeded by P. E. Thomas, '09, Secretary of the Alumni Association, these two offices being joined. Upon the resignation of Thomas in 1911, Raymond H. Smith, '05, was appointed to fill the two vacancies thus created, and continued to serve as Graduate Manager of Athletics and Secretary of the Alumni Association until promoted in 1918 to the responsible position of Comptroller of the College. At this juncture the joint position held by Mr. Thomas and Mr. Smith was abolished, each

organization thereafter employing full-time executive officers. Neil M. Fleming, '14, now became graduate manager and has so continued down to the present time.

There is no record of eligibility rules prior to 1911, but in May of that year the Athletic Association adopted a rule prohibiting any student from representing the College in any sport for more than four years. This action was followed later in the year by the adoption of two more rules—one providing that special students must carry a class schedule at least equal in credit hours to the minimum freshman requirements; the other prescribing that no student shall be eligible for intercollegiate athletics who has previously competed for three years in this or any other college of equal scholastic standards. In 1913 a rule was adopted providing that no student who was not fully matriculated and in good standing scholastically should be eligible for intercollegiate athletic competition. This was followed in 1914 by a rule forbidding any student to compete in such contests unless he had completed one year in residence in a regular four-year college course. In 1926 a rule was adopted rendering ineligible for intercollegiate contests any student who had received a degree from any approved college. Finally, in 1935, certain rules were adopted pertaining to the eligibility of transfers from junior colleges.

The one-year residence rule resulted in the formation in 1915 of the first official freshman team—a significant new departure at Penn State; but in line with the general policy of the College to develop athletic material within itself, and also to interest new men in sports. B. M. "Dutch" Hermann, '12, became the first coach of the freshman football team, and in 1915-16 was appointed coach of the varsity basketball team—positions which he continued to hold with marked success until 1932.

When Golden resigned as director of physical education in

1912, no one with that title was appointed to succeed him until 1919, when Hugo Bezdek became head of the Department of Physical Education and Director of Athletics. In the interim between these two, W. E. Lewis was made responsible for gymnastics and for coaching in wrestling; while Hollenback, Harlow, Scott, Whitney, and Hermann filled in the gap as varsity coaches in the various other sports. The First World War curtailed all athletic activity at the College during 1917 and 1918, but at its close Penn State entered upon an era of tremendous athletic development. The Athletic Association, ably directed by graduate manager Fleming and well advised by the Alumni Advisory Committee, rendered important services. In this era the prestige of Penn State in athletics mounted rapidly as a result of repeated victories in the principal sports in contests with some of the strongest teams to be found in the country.

Beginning with 1920, many improvements have been made in the athletic facilities provided by the College. Two practice fields were prepared to the east of New Beaver Field, new grandstands were erected, and additional bleachers were provided, bringing the seating capacity up to 13,500. Varsity Hall was completed in 1924, and floodlights were installed on the lower practice field. Recreation Building, erected at a cost of \$572,260, was dedicated on March 23, 1929. In 1924 there were four football fields, four baseball diamonds, seventeen tennis courts, special fields for soccer, lacrosse, and track, and 153 acres set aside for recreational purposes; and two years later an 18-hole golf course of championship calibre was open for play. The completion of Mary Beaver White Hall in 1938 provided a magnificent women's activity center with unexcelled facilities.

In 1927 certain changes in College policy regarding athletics began to take shape, greatly influencing the subsequent

history of these activities. In that year the Trustees adopted a resolution providing that thereafter no more athletic scholarships should be granted, the last holders of these being graduated in 1930. While this process was being completed, the management of Varsity Hall was gradually turned over to the College, although the Athletic Association maintained a training table there until 1931. In 1929 an amendment to the constitution of the Athletic Association replaced the Alumni Advisory Committee with a new Board of Athletic Control, composed of thirteen members. A further radical change in athletic control was effected by the creation in 1930 of the School of Physical Education and Athletics, whose head was given supervision over all intercollegiate activity. The office of the graduate manager of athletics now became a department in the new School, with the Board of Athletic Control serving in an advisory capacity. In 1936 the title of this Board was changed to "Athletic Advisory Board" to correspond more closely with the duties of that group. Thus it is seen that the responsibility for the conduct of athletics at Penn State has been shifted gradually from the students to the alumni and from the alumni to the College administration, although the line of demarcation has not always been clearly drawn nor is it at present too clear to the uninitiated.

It would appear that the motivating force behind these radical changes was the feeling on the part of many of the Trustees and of the alumni in the 1920's that there was too great an emphasis at Penn State on intercollegiate athletics, especially football, and too little on the expansion of the program of health and physical education and its corollary of mass athletics; hence the movement to curb the one and to expand the other. With this in mind, it may be noted that new trends have developed in the athletic program of the College since about 1930. Among these are: the effort to secure a more

general participation of the undergraduate students in some form of physical activity or recreation; the broadening of the base of the intercollegiate program to include additional sports both for varsity and freshman teams; the recognition that Health, Physical Education, and Recreation are as essential for women as for men, and the provision of better athletic facilities for women students; and, finally, the creation of the School of Physical Education and Athletics with a curriculum in Health and Physical Education leading to the degree of Bachelor of Science.

One of the most significant movements in athletics at Penn State in recent years has been the development of intramurals. This movement started in the administration of President Sparks and made some headway, but was retarded by lack of funds. Nevertheless, the ideal of "athletics for all" persisted and has long been the goal toward which the College has been working. Its advocates argued that it would serve two very useful ends—it would be an excellent device for promoting the physical education and health of the students, and would also be the means of developing latent athletic talent on the campus for the recruiting of varsity teams. When Hugo Bezdek became Director of Physical Education in 1919, it was understood that mass athletics would be one of the main objectives toward which he was expected to devote his attention. Increased facilities were provided for intramural athletics in the 1920's and some progress was made along these lines, though not to the extent some had anticipated. The brilliance of our record in intercollegiate contests tended to obscure the intramural program.

Following the change in athletic policy which culminated in the organization of the School of Physical Education and Athletics in 1930, a stronger emphasis was placed upon intramural athletics than formerly. It was recognized that it was

desirable to create a more general interest in athletics by broadening its scope, partly by increasing the number of intercollegiate sports and partly by promoting intramural athletics. In 1931 Director Bezdek reported that every opportunity was afforded the students to engage in an intramural program of individual and team activities, and that a program of recreational activities was being substituted for more formal types of exercise. By 1935 this program, organized by Director Bezdek and supervised by the Student Intramural Advisory Council, was well advanced, more than 4000 students and 400 teams participating in these activities. Arrangements were made for competitive contests for trophies between representative teams from the various fraternities, clubs, halls, and independents. As an incentive for these groups to engage in some form of athletics, the Bezdek Trophy was awarded each year to the organization which had been most active in intramural and intercollegiate sports; after 1937 the name of the trophy was changed to "Penn State College Trophy."

The program of athletics for all includes not only 17 intercollegiate varsity sports and 14 freshman sports, together with intramurals, but also others of a recreational nature, such as ice-skating, roller-skating, and hiking. A program of healthful recreation for all students was organized in 1938 with the help of an advisory committee composed of representatives from each of the Schools of the College. Under the guidance of this all-College committee, student recreation has gone forward rapidly in recent years, particular attention being paid to week-end activities. Such interest was manifested in ice hockey and skiing that in 1941 they were given the status of varsity sports.

Another significant trend in the athletic program of Penn State in the past decade has been the development of athletics for the women students. Prior to 1918, practically the only

form of physical education provided for the girls at the College consisted of calisthenics under the direction of "Doc" Lewis. In the fall of that year, however, Miss Margery Sime, of the Department of Home Economics, was appointed part-time physical director for women and conducted classes in gymnastics twice weekly for the freshmen and sophomores. With the aid of the alumnae, a full-time director of physical training was secured in 1919, and the Women's Athletic Association was organized to promote sports for girls. In 1920-21 a full athletic program was arranged, with teams competing in hockey, volleyball, basketball, and track; and opportunity was given for individual competition in tennis and golf. The Association gradually strengthened its organization and improved its facilities, recognizing hockey, basketball, and track as major sports; and tennis, golf, volleyball, baseball, and rifle marksmanship as minor sports. From this point of vantage, which had been reached by 1927, athletics for women developed rapidly and began to play an important part in student life. An intramural program for women was developed, with teams representing the sororities, dormitories, and independent units under the direction of an intramural board consisting of a head manager and a representative from each of the constituent groups.

In 1938-39 women's athletics entered upon a new era of progress, owing mainly to the completion of the Mary Beaver White Recreation Hall, with the splendid facilities it offers. The Women's Recreation Association was organized, including in its membership every undergraduate woman student and undertaking the promotion of a program of intramural and recreational activities for the entire women's student body. There are eleven organized clubs whose purpose is to develop interest and skill in a particular sport or activity for each member. These include archery, bowling, badminton,

dancing, fencing, golf, rifle, swimming, tennis, and riding clubs. Tournaments between classes, sororities, and dormitories are conducted annually. The Women's Recreation Association owns a cabin in the nearby mountains for the use of all undergraduate women students. Used entirely for recreational purposes, it is the center for hiking parties, bicycle trips, and overnight stays. It is popular for picnics and informal parties, and has sleeping accommodations for thirty persons.

Limitations of space preclude a detailed discussion of the development of the intercollegiate sports of the College, but it is proposed to describe a few of these further in view of the general interest taken in them and for the sake of rounding out the story as far as possible. It has been noted that the first football game was with Bucknell in 1881, but that there is no record of further intercollegiate football contests until 1887. In the latter year football became established on a permanent basis, with Penn State winning two games from Bucknell, 54-0 and 24-0; since that time football games have been played each year with other colleges and universities. Gradually the schedule was enlarged to include Dickinson and Lehigh in 1888, Swarthmore and Lafayette in 1889, and Penn in 1890; the first game with Pitt was in 1893. The team was rather successful from the start, winning 23 games, losing 4, and tying 1, from 1891 to 1904, inclusive. The first really outstanding football season at Penn State was that of 1894, when every game was won except with the Navy, which was a tie, 6-6. No such record was made again until 1909, in which year Penn State suffered no defeats, but tied Penn and the Carlisle Indians; this was also the first year when the home games were played on New Beaver Field. Although the team continued to win most of the games in the two succeeding years, not until 1911 was it recognized as one of the leading aggregations of the country. That year it defeated Geneva, Gettysburg, Cornell,

Villanova, Penn, St. Bonaventura, Colgate, and Pitt, and tied the Navy, 0-0, coming through with an undefeated team against some very strong competitors; only Penn and Colgate scored, and these teams were defeated by scores of 22-6 and 17-9, respectively. In 1912, however, an even better record was made, Penn State winning every game, with victories over such formidable competitors as Carnegie Tech, Cornell, Penn, Pitt, and Ohio State. From 1911 to 1913 there was a period within which the team played a 17-game streak without a defeat. By this time the Nittany Lions were nationally recognized as one of the outstanding teams in the country. Much of the credit for this remarkable record is due to the coaching of Bill Hollenback. There was a decided slump in 1913 and only moderate success in the ensuing years until 1919, when the team scored a strong comeback under the coaching of Hugo Bezdek. Some of the stars that gave lustre to the annals of Penn State football in this period were E. H. "Bull" McCleary, '10, E. R. "Cyph" Cyphers, '09, E. H. "Heff" Hirshman, '10, J. L. "Pete" Mauthe, '13, Dexter Very, '13, Larry Vorhis, '10, Dick Harlow, '12, E. E. "Shorty" Miller, '14, J. D. "Red" Bebout, '14, R. N. "Punk" Berryman, '16, Levi Lamb, '15, and W. T. "Mother" Dunn, '08. Dunn was the first Penn State player to gain national prominence, being selected on Walter Camp's All-American team in 1906.

The golden age of football at Penn State was from 1919 to 1924, inclusive. It began in 1919 with a fine season in which the team, coached by Bezdek and captained by R. A. "Bob" Higgins, '18, defeated Gettysburg, Bucknell, Ursinus, Penn, Lehigh, Cornell, and Pitt, and lost only to Dartmouth, 13-19. In the Dartmouth game Charlie Way returned the opening kickoff 90 yards to score, and also picked up a fumble and ran 85 yards to score a second touchdown. This year was further featured by the selection of Bob Higgins, '18, on Walter

Camp's All-American team. In the 1920 and 1921 seasons the team was undefeated, winning 7 games and tying 2 in the former year, and winning 9 and tying 1 in 1921. In 1920 Charlie Way, '20, continued his brilliant record and was named All-American halfback by Walter Camp; and in the game with Penn, H. L. "Hinky" Haines, '21, returned the second half kickoff 90 yards to score. In the 1921 season occurred the famous tie game with Harvard, 21-21, in which Joe Lightner, '22, scored all of Penn State's touchdowns and kicked all the goals, for the entire score of 21; and Glenn Killinger, '21, distinguished himself in the Georgia Tech game by returning a kickoff 85 yards to score, and by being selected as quarterback on Walter Camp's All-American team. In the season of 1922 the team was less successful than for several years, but was still a powerful aggregation, winning 6 games, losing 4, and tying 1; the loss to Navy this year was the first defeat in 32 games. Penn State played the University of California in the colorful Rose Bowl game this year. The team had a good season in 1923, winning 6 games, losing 2, and tying 1; in the game with Navy, 21-3, Harry Wilson, '24, scored all three touchdowns on long runs, and in the game with Penn, 21-0, he again, for the third time in his career, scored three touchdowns. This year was further featured by the fine playing of Captain Joe Bedenk, '24, who was chosen guard on the All-American team of Walter Camp. In the 1924 season the team won 6 games, lost 3, and tied 1; Jules Prevost, '26, distinguished himself by kicking two field goals in the game with Syracuse, and by repeating the performance to win from Navy, 6-0. Other outstanding players in this era were Harry Robb, '19, and Larry Conover, '19.

The Penn State football team continued to give a good account of itself down to and including 1927, but for some years thereafter its fortunes waned. In 1930 Bezdek was made Di-

rector of the newly created School of Physical Education and Athletics; and Robert A. "Bob" Higgins, '18, was appointed head coach of football, but was handicapped by the abolishment at this time of athletic scholarships—an innovation which took several years of adjustment. Finally, however, coach Higgins succeeded admirably in meeting a difficult situation, and for the past five years Penn State's football team has again taken high rank in the athletic world. Higgins returned to the campus in 1928 as assistant coach, and has retained the position of head coach creditably since 1930.

A large measure of the success of Penn State in football is due to the expert coaching the team has enjoyed in the past thirty years. A retrospective glance reminds us that, although Hoskins and Newton did some coaching of football, they were not particularly qualified by experience for such work; and that the real beginning of the coaching at Penn State dates from 1902, when E. K. Wood assumed control of the team for the season. The first outstanding coach was "Tommy" Fennell, who was in charge of the team during part of the season of 1904, and returned for longer periods each year until 1909. Admired and beloved not only for his expert knowledge of football but also for his high ideals and manly character, "good old Tommy" is one of the finest athletic traditions of Penn State. H. C. McIlveen, '07, succeeded Fennell as head coach in 1909, with W. H. "Bill" Hollenback serving as advisory coach in actual charge of the team, and later as advisory coach under head coach E. H. "Bull" McCleary, '10. In 1912, however, Hollenback assumed the title as well as the duties of head coach and continued to serve in that capacity until 1915, when he was succeeded by R. C. "Dick" Harlow, '12, who was assisted by L. C. "Bud" Whitney as advisory coach and by B. M. "Dutch" Hermann, '12, as freshman coach. When Harlow left to enter the army in 1918, Hugo

Bezdek succeeded him as head coach, to be followed by Bob Higgins, the present incumbent, as noted above.

Attention has been called to the chronic difficulty experienced in the early days in securing funds for equipping the teams and for meeting the expenses of intercollegiate contests. In 1899, however, it was decided to put athletics on a more permanent basis by charging each student an athletic fee of \$5, which entitled him to membership in the Athletic Association and to free admission to all the games. Finally, in 1910, the policy of charging the public admission to home games was inaugurated, and the organization of the Athletic Association under a graduate manager, together with better attendance at home games and larger guarantees in contests away from home, enabled the football team to show a steadily increasing profit. In fact, football profits afforded the chief means by which many of the minor sports were added to the athletic program; it also provided the funds for effecting substantial improvements in the athletic facilities of the College. The guarantee of \$38,000 received in 1924 from the University of Pennsylvania for a game at Franklin Field contrasts quite favorably with a guarantee of \$350 by the same university in 1902. A further sidelight on the change in the financial situation is seen in the salaries paid to coaches in the earlier and later periods. In 1902 E. K. Wood received \$45.83 for coaching football a part of the season, and in 1908 Fennell received only \$1500 for his services as coach. Contrast this with the salary of \$14,500 paid Hugo Bezdek for several years, and also with the fact that at one time the combined salaries of the football coaches at Penn State amounted to \$28,500 in a single year. The most prosperous years were from 1921 to 1929, inclusive, when the receipts from football ranged from \$95,000 to \$136,000 annually, averaging well over \$100,000 a year throughout this entire period. After 1929, as a result of

the abolition of athletic scholarships and the accompanying deflation of football for some years, the receipts declined sharply; but they have improved in recent years as the teams began to regain something of their former prestige, with larger attendance and better guarantees than in the depression years.

While football was developing into a great sport at Penn State, baseball was also coming to the front in the athletic world. Following the initial intercollegiate contest with Bucknell in 1882, there were no more intercollegiate games until 1889, when a defeat was administered to Dickinson. Although baseball was recognized by the Athletic Association as a varsity sport in 1889, the game did not develop for several years because of inadequate financial support and the lack of a suitable playground; hence there were no further intercollegiate contests until 1893, when two games were won from Bucknell and one from Dickinson. In 1894 the team played the University of Pennsylvania for the first time, winning by a score of 21-6; and in this year occurred its first southern trip, resulting in defeats at the hands of the University of Virginia, Washington and Lee, and Virginia Military Institute. The first eastern trip was in 1896, in which games were played with Princeton, Penn, and Fordham—the first two defeats, but the last a victory. One of the most sensational games was in 1907, when Penn State defeated Cornell in a 17-inning game, 3-2. The completion of New Beaver Field in 1909 gave baseball a first class playing field, enabling the management to schedule some of the better teams to play here. One of the best seasons was that of 1915, when the team won 16 of the 20 games played that year.

Under the coaching of Hugo Bezdek, Penn State had a great baseball season in 1920, winning 18 games, losing 3, and tying 1; among the teams defeated were Yale, Princeton,

Pitt, Carnegie Tech, and the University of California. The 1921 season was even more successful, resulting in our winning 22 games and losing 3. The team lost the game with Penn and two out of three with Pitt, but defeated the U. S. Military Academy, the University of Virginia, V. M. I., Washington and Lee, Navy, Georgetown University, Carnegie Tech, Princeton, New York University, and the University of Detroit, coming through with the best season in Penn State baseball history. The 1922 and 1923 seasons were not so successful, although the team continued to win a majority of the games; there then followed a slump for several years until a winning team was turned out in 1927. When Bezdek ceased to coach baseball in 1930, he was succeeded by F. J. "Joe" Bedenk, '24, who has continued as baseball coach down to the present time. The southern trip was discontinued in 1932, and in 1934 it was decided to schedule fewer games than formerly. In 1935 Penn State lost 7 out of the 13 games played, but came back strongly the following year to win 13 out of 17 games; since that time the team has continued to make a good record. In late years, however, baseball at Penn State has lost to boxing, wrestling, and track something of its former popularity as a sport; while football retains its place as the most popular sport among the students and the public. The tendency is for interest to center in football in the fall; in boxing, basketball, and wrestling in the winter; and in track in the spring—all at the expense of baseball, which no longer dominates the situation as the second sport in student and popular interest.

The third intercollegiate sport to be inaugurated at Penn State was track, which started in a small way in 1887. The first pole vault record was established by W. L. Barclay, '88, in 1887, and the first hurdle record by P. M. Brown, '90, in 1888. Following the admission of Penn State into the Pennsyl-

vania Intercollegiate Association in 1891, this sport was taken more seriously, the team securing second or third place in the Association's annual track meet until 1898, when Captain Frank Kaiser, '98, and his men took first place. The first dual meet was with Bucknell in 1899, and in 1900 the team won first place in the Pennsylvania relays. Although Penn State was admitted into the IC-4A in 1897, it did not become active in the organization until 1910. The first entry into the I. C. A. A. A. was in 1911, and the first into the intercollegiate cross country run was in 1913. Between 1920 and 1925 twelve first places were won in the I. C. A. A. A. A. meets, and four world records were broken. One of the most famous Penn State track stars was M. L. "Larry" Shields, '19, who established the one-mile record in the I. C. A. A. A. A. meet of 1920, with the time 4:22 $\frac{3}{4}$. The circumstance which gave him his greatest fame, however, was his sportsmanship displayed in the distance medley race at Franklin Field in the Penn relays of 1921, when he stopped and helped a Georgetown man on his feet, than which the athletic records of the College contain no finer example of the true Penn State spirit. Another renowned Penn State track star was Alan Helfrich, '25, who in 1925 established a world indoor record at Madison Square Garden in the Finnish A. C. games, winning the 500-metre race, time 1:05 $\frac{1}{4}$; and established another world record in the 800-metre race at Georgetown University indoor games at Madison Square Garden. Under N. J. "Nate" Cartmell, who served as varsity track and cross country coach from 1923 to 1933, Penn State came into national prominence in both sports, placing first in the IC-4A cross country meet in 1926, 1927, 1928, and 1930. Under coach C. D. "Chick" Werner, who succeeded Cartmell, Penn State won both the indoor and outdoor IC-4A titles in 1942, thereby becoming the first college in the history of the organization to gain both titles in the same year.

Certain other intercollegiate sports have also reached a

high state of development at Penn State. Among these are basketball, wrestling, soccer, and boxing. From 1896 to the present time there have been regular intercollegiate contests in basketball. The team was coached by undergraduates until 1916, when B. M. "Dutch" Hermann was appointed varsity coach and, except for two years in the army in the First World War, coached the team continuously until 1932, winning the major share of the games; Penn State has made a notable record in basketball in contests with some of the strongest teams in the East. Excellent records have also been made in wrestling, soccer, and boxing. Wrestling originated here as a substitute for the annual class rush, which tended to become a hazardous affair. In 1908 a wrestling club was organized with a view to developing a team to represent the College, and bouts were held in the Armory. The first intercollegiate wrestling match was with Cornell at Ithaca in 1909. Since 1914, when wrestling was recognized by the Athletic Association as a varsity sport, Penn State has engaged regularly in about five meets a year. The most successful era of this sport was between 1918 and 1927, when "undefeated teams and championships came with enjoyable monotony." With the improved facilities of Recreation Building, it was not unusual to have 6500 spectators witness the more important meets held at the College. Charles M. Speidel, '38, has been the outstanding wrestling coach at Penn State, serving in this capacity since 1927. His teams won eastern championships in 1936, 1937, and 1942. In no sport, however, has the College had a more consistent record of success than in soccer, which was established as a varsity sport in 1911; the first intercollegiate game was with Haverford in that year. The present coach, W. "Bill" Jeffrey, who has long been famous throughout the country as a coach of soccer, took charge of the team in 1926 and has so continued down to the present time. To him may be attributed the chief credit for the phenomenal success of Penn

State in this sport, the team winning an overwhelming majority of the games, including "an amazing streak of 65 games without defeat." In boxing, also, Penn State has maintained a high rank. It was made a varsity sport in 1919, when the team participated in the first regular scheduled meet held in collegiate circles in the spring of that year in Philadelphia. The College has had a boxing team each year since that time, first under coach Harlow, but under coach Leo Houck since 1922. The first tournament of the Intercollegiate Boxing Association was held in the Armory at Penn State, which won the contest. In the past twenty years the College has produced seven eastern championship teams, forty-two individual eastern champions, and four national championship boxers. Tennis became a varsity sport in 1911, lacrosse in 1913, and golf in 1922. Other intercollegiate varsity sports recognized by the Athletic Association are gymnastics, cross country, rifle, fencing, swimming, ice hockey, and skiing. Since 1930, intercollegiate sports have been administered as a department in the School of Physical Education and Athletics, first under Director Hugo Bezdek until 1937, and under Dean Carl P. Schott since that time.

From the foregoing description of physical training and athletics at The Pennsylvania State College, it may be observed that throughout the years the institution has not only developed a program of physical education and health in harmony with the most advanced standards of the time, but has also won many notable victories in all the principal intercollegiate sports. The ideals and traditions of clean sportsmanship prevailing at Penn State, together with the prestige enjoyed by the College in intercollegiate athletics, are not only a cause of gratification and pardonable pride to its hosts of alumni and friends, but may well be regarded as a source of strength to the institution itself, and even one of its titles to fame.



*THE COLLEGE AND
THE COMMONWEALTH*

FOR MANY YEARS there existed considerable confusion in the public mind as to the relation of The Pennsylvania State College to the Commonwealth, and even today there appears to be a certain amount of foggy thinking on the subject on the part of the uninformed. Hence it is conceived that a clarification of the matter is in order, not only because of the desirability of removing such lingering uncertainty as may still exist in the minds of a few, but also in the interest of a more complete understanding of the history of the College, which at various times in the past has been the victim of erroneous views as to its status. Such misconceptions were especially disturbing throughout the early history of the institution, whose relation to the State was then less clearly defined than it is now.

The College has never been a purely private institution, since from the beginning certain State officials were ex officio members of its Board of Trustees, and it was required to make an annual report to the Pennsylvania State Agricultural Society, which in its turn was required by law to incorporate this in its own annual report to the Legislature. Although recognized as being in a class by itself, it is not claimed that, by virtue of its original charter, it was founded as a State institution. Within a few years of its establishment, however, it was transformed into a State college upon the acceptance by the Pennsylvania Legislature of the provisions of the Morrill Act

and the designation of The Agricultural College of Pennsylvania as the recipient of the funds accruing to the State under that act. On April 1, 1863, the Legislature accepted the Morrill Act "with all its provisions and conditions," and pledged the faith of the State to carry the same into effect. By this and subsequent legislation the College was brought into entirely new relations with the State, so that it became in law and in fact a State institution which the Commonwealth is honor bound to maintain. In a very real sense, The Pennsylvania State College represents a covenant entered into between the Commonwealth of Pennsylvania and the United States Government, in which the former undertook to fulfill a specific obligation to the latter to maintain a college of the character described in the Morrill Act. Penn State was selected by the Legislature to fulfill the terms of this contract because it was the only college in the State adapted to give the kind of instruction required by the act.

Since 1863 the Pennsylvania Legislature, by subsequent acts, has confirmed the pledge originally made and has strengthened the ties that bind together the College and the Commonwealth. By Act of April 11, 1866, the Legislature authorized the Trustees of the College to borrow \$80,000 to pay off a debt contracted in the erection and equipment of the original building; and, by Act of June 12, 1878, made an appropriation to pay off the mortgage. The Act of February 19, 1867, authorized the sale of all the remaining land scrip and directed that the entire income from the proceeds be paid to The Agricultural College of Pennsylvania on condition that this institution should maintain three experimental farms. By formal resolution adopted on March 13, 1867, the College accepted the terms of this act. It will be observed that we have here all the elements of a public contract—a grant by the United States Government under specified conditions; an ac-

ceptance of the grant by Pennsylvania with a pledge to fulfill the conditions of the same, and the designation of The Agricultural College of Pennsylvania as the medium through which the pledge shall be carried out; and the acceptance and performance of that trust by the College.

From time to time Congress has made further donations, each of which, like the original grant of 1862, has been accepted by the Pennsylvania Legislature. Being the recipient of funds appropriated by both the Federal and State Governments, the Trustees of the College are required to make a report annually of their operations, and this report is printed at the expense of the State in the same manner as other public documents. Inasmuch as the Federal and State Governments are both concerned in the maintenance of The Pennsylvania State College, this corporation, through its Board of Trustees, becomes the agent to administer the trust committed to it by these governments and is subject to their general direction in so doing.

Every appropriation bill passed by the Legislature for the benefit of The Pennsylvania State College sets forth in the preamble as follows:

“In order to carry into effect the Act of Congress approved July 2, 1862, granting public land to the several states for educational purposes, and the Act of the Legislature of Pennsylvania approved April 1, 1863, accepting the provisions and conditions of said Act of Congress and pledging the faith of the State to carry the same into effect.”

By many legislative acts, headed always by this preamble, the Commonwealth of Pennsylvania has kept faith with the nation by preserving in Penn State a public institution of higher learning as defined in the Morrill Act, and has also confirmed its pledge to The Pennsylvania State College. On their part, the Trustees of the College, mindful always of the fact

that Penn State is the recognized agent of the Commonwealth in the field of higher education, have consistently had, as their first principle, so to administer the affairs of the institution as to render the greatest public service. The appropriations granted to the College over a period of more than eighty years have not been made as to a private institution, but solely as a means of carrying into effect the broad scheme of public policy, agreed upon between the Commonwealth and the United States Government, through its chosen agency—The Pennsylvania State College.

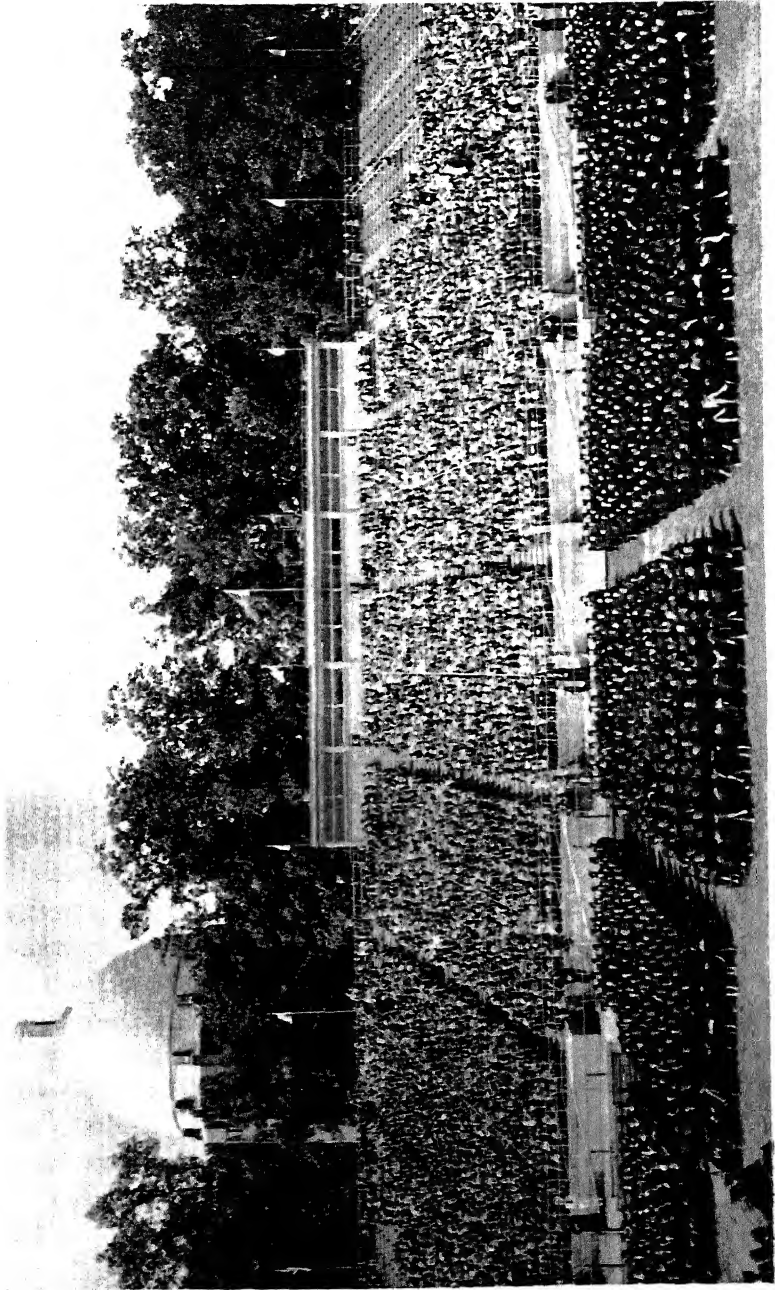
As a State institution, the control of the College is vested in the representatives of the people, subject always to the direction of the Legislature. The Board of Trustees is composed partly of public officials and the appointees of the governor, partly of members elected by the organized agricultural and industrial societies of the Commonwealth, and partly of those chosen by the alumni. Ex officio members include the Governor of the State, the President of the College, the State Superintendent of Public Instruction, the State Secretary of Agriculture, and the State Secretary of Mines; six members are appointed by the Governor, twelve are elected by delegates from the agricultural and industrial societies, and nine are chosen by the alumni. A Board of Trustees so constituted is of a public nature, and all trustees, however elected, are duty bound to recognize their obligation as trustees acting in behalf of the State; and, although the Commonwealth's control of the corporation falls short of being absolute, the College is nevertheless an essentially public corporation. While the legal title to its property is vested in the corporation, the equitable title is vested in the Commonwealth.

As a State institution, The Pennsylvania State College has certain distinctive features which set it apart from all other institutions of higher learning in the Commonwealth. It is the

only college in Pennsylvania which was established and has since been maintained by the cooperative action of the Federal and State Governments; and the only one to which the faith of the State has been pledged to carry into effect the purposes for which it was established, and which has been recognized by the Legislature as the ward of the Commonwealth. None other has received from the Senate, the House, and the Governor an official certification that it is a State institution, as was done in the case of Penn State in connection with the later application to the Carnegie Foundation under the new rules. The Carnegie Foundation refused to pension members of the faculty of Penn State because it is the only college in the State which was classified as a State institution. The Rockefeller Foundation from time to time has refused any financial aid on the ground that the College is a State institution; and it is the only college in the State which the Foundation has so classified. The report of the Commission for the Reorganization of the State Government included Penn State in its list of State institutions, and it was the only institution of higher learning so included. This is the only college in the Commonwealth which has been designated by the United States Government and has been recognized by every other State as the "land grant" or State College of Pennsylvania, and the only one which is required by law to give military training; it is also the only one that is maintained primarily by national and State appropriations.

The status of the College as a State institution was further clarified in 1921 and 1922 by rulings rendered by the Attorney General of Pennsylvania. In 1921, the question having arisen as to whether a tax should be paid upon gasoline purchased and used by the College, the Attorney General held that no such tax should be paid by the institution on the ground that it "is in fact, as its name indicates, a State institution." Again,

the College having received a legacy of \$10,000, the question arose as to whether the College was liable for the payment of the Transfer Inheritance Tax. In an opinion rendered December 23, 1921, the Attorney General held that The Pennsylvania State College, as a public institution, was "never within the contemplation of tax laws" and was therefore not liable for the inheritance tax. Upon inquiry by the College administration as to whether The Pennsylvania State College was eligible for insurance coverage under the provisions of the State Insurance Fund, the Attorney General ruled that, as a State institution, it would be eligible. He ruled also that all designs for new structures erected at the College must be submitted for approval to the State Art Commission, as in the case of all State institutions. These opinions of the Attorney General were reinforced in November 1937, when the Court of Common Pleas of Centre County, Pennsylvania, in which the College is located, was called upon to decide whether The Pennsylvania State College is subject to local taxation. The court ruled that the College, as an agency of the State government, performs a function of government educationally, its existence being "solely for the purpose of performing educational and experimental functions of the State." The opinion goes on to say: "The institution is the one of its kind in the State, and the history of its relations with the State government indicates throughout the recognition of its peculiar character as a State agency. In view of these circumstances as to the institution, it seems clear that The Pennsylvania State College is an institution of such public nature that its property and activities are not subject to local taxation." In view of these legal opinions and of the acts of Legislature relating to the institution, the status of The Pennsylvania State College as a State institution can no longer be called in question. In law and in fact its status has been fixed unequivocally for all



COMMENCEMENT, JUNE 1941

time as that of a State institution entitled to all the privileges and immunities, and charged with all the responsibilities, which grow out of this relationship—unique in its position among the institutions of higher learning in the Commonwealth.

Having considered the status of the College as a State institution, it is now proposed to discuss briefly other aspects of the relation of Penn State to the Commonwealth and to the public. It may be noted that this institution has long been regarded as the capstone of the public school system of Pennsylvania. As early as 1889 President Atherton declared that Penn State “had in recent years come to be regarded as one of the important educational agencies in the state system of public instruction,” because of its being supported by public funds as an agency of public education. It was not, however, until the 1890’s that this relationship began to be emphasized either by the College or by the State Department of Public Instruction. In 1892 an editorial in the *Pennsylvania School Journal* envisaged The Pennsylvania State College as a great university, “the top and crown of the Pennsylvania school system of public instruction.” In the following year this relationship was distinctly recognized by Dr. Nathan B. Schaeffer, State Superintendent of Public Instruction, who said in his report for 1893: “Although not organically connected with the common schools, the State College is nevertheless an essential part of our system of public instruction.” Furthermore, in recognition of the close connection between these two educational agencies, the State Superintendent of Public Instruction has always been an ex officio member of the Board of Trustees of the College. For half a century the relation of the College to the public school system of Pennsylvania has grown constantly closer, to their mutual advantage.

Let us now direct our attention to another aspect of the

subject from the point of view of the service rendered by The Pennsylvania State College as a public institution to the people of the Commonwealth. In the preceding narrative we have noted from time to time the character and extent of these services, but it is here proposed to give a summary view of them to the end that this phase of the subject may receive the emphasis it merits. The primary obligation, aim, and endeavor of the College has always been to serve the people of Pennsylvania in every way at its command. This service is rendered in three principal fields of activity—resident instruction, extension, and research.

Through resident instruction in technical and non-technical courses, an immeasurable service has been rendered to the many thousand students who have been privileged to attend The Pennsylvania State College. These courses are not merely of the character of those found in other institutions, although there is a great similarity in many of them; but a goodly proportion of them are designed especially to meet the needs of the people and the industries of the State in a very practical way consistent with the genius of a land-grant college. Apart from the distinctive features of Penn State in relation to the Federal and State Governments, however, this college has performed a great service to the Commonwealth by offering its numerous and diversified courses of instruction free of tuition. This instruction, offered in 47 four-year curricula in the seven undergraduate Schools, covers a wide variety of technical and non-technical subjects. The College is not content to teach only those resident on the campus, but reaches out through its extension work to students all over the State. Since its extension services have already been described at length, it is not necessary to discuss the subject further in this connection other than to remind ourselves that, as a tax-supported institution, Penn State has measured up fully to its ob-

ligation to carry the blessings of education to hundreds of thousands of people who have been denied the privilege of attending college.

The service rendered the Commonwealth by resident instruction and extension is reinforced strongly by the research program of the College. This program, made possible mainly by appropriations received from the Federal and State Governments, consists of more than 500 active projects. The Hatch Act of 1887, the Adams Act of 1906, and other congressional acts, accepted and supplemented by the Pennsylvania Legislature, constituted The Pennsylvania State College as a special agency of scientific inquiry and investigation for the State and Nation. Hence Penn State, as the recipient of these benefits and responsibilities, became in a very real sense "the Commonwealth's institute of research on any subject in which scientific investigation under public auspices can be beneficial to the people." Of the 500 research projects now under way at the College, about 200 are being conducted by the School of Agriculture, and the remainder are distributed throughout the other Schools and departments of the institution. The organized research of the College, much of which is undertaken with a view to meeting existing problems of those engaged in farming, manufacturing, mining, and trade, is carried on by means of the Agricultural Experiment Station, the Mineral Industries Experiment Station, and the Engineering Experiment Station, and by other Departments.

While some of the investigations pursued by the Agricultural Experiment Station are quite technical, being designed to advance the boundaries of agricultural science, most of these are entered upon in response to immediate practical needs of Pennsylvania agriculture. Among the problems investigated are those dealing with the control of various pests and plant and animal diseases, the nutrition of crops and of

farm animals, the development of improved varieties of crops, the breeding of superior types of farm animals, and the costs of producing and marketing farm crops. It is estimated that, as a result of these investigations, millions of dollars have been saved by Pennsylvania farmers. The Mineral Industries Experiment Station conducts investigations in the various branches of the mineral producing and processing industries, about 70 such projects being under way at the present time. By means of a cooperative endeavor between the State and industry, these investigations are financed partly by legislative appropriations and partly by funds supplied by industry. Especially noteworthy is the research program entered into between the Experiment Station and the anthracite and bituminous coal industries of Pennsylvania under the general supervision of the Secretary of Mines of the Commonwealth. The Engineering Experiment Station pursues research along scientific and technical lines with a view to serving industry and the public. Some research projects are supported by funds derived from industry or supplied by a cooperating agency for a specific purpose, the facilities of the Station being available to the people of the State for investigations whose results may promote the public welfare.


Thus it is seen that the College administration has been at pains to make the research program of the institution not only extend the bounds of scientific knowledge but also serve the people in the solution of everyday problems. This program has expanded constantly, especially in recent years, to include the problems of business and industry equally with those of agriculture; and also those arising from social and economic maladjustments. A fairly recent development is the growing tendency upon the part of the State Government and of the municipalities of the Commonwealth to look to the College for aid and counsel in working out a solution of governmental

problems, and there has been a notable advance along these lines within the past decade. From the foregoing account it may be observed that the whole educational program of The Pennsylvania State College, whether by resident instruction, extension, or research, is permeated with the purpose of serving, and has indeed served, the people and the industries of the Commonwealth with all the resources of the institution. That the College has performed faithfully and efficiently the trust committed to its charge cannot be doubted.

A further service of a less formal character is rendered by the College to the people of Pennsylvania through the facilities offered by it for scientific, educational, commercial, and industrial conventions and conferences held on the campus. By reason of its central location, the natural beauty of its surroundings, and the excellent accommodations furnished by the Nittany Lion Inn, Penn State has become a favorite place for the holding of conventions and conferences representing a wide variety of cultural, scientific, and economic interests, and has rendered a public service by acting as host to a constantly increasing number of these gatherings.

The recognition of the service rendered by the College to the Commonwealth has increased steadily for many years, and with it has come a corresponding growth in public favor, which in turn has led to more generous legislative appropriations. A retrospective glance reminds us that it was not ever thus, and that there was a long, hard struggle for recognition; but we are also reminded that, beginning with the Atherton administration, there developed a growing appreciation of the worth of the College to the people of Pennsylvania. This was due in large part to a recognition of the greater service that the institution was rendering, and this in turn was the result of the broadening of the curriculum to include numerous additional courses in the several Schools and departments of the

College, thereby serving a wider constituency. Upon the foundation laid by President Atherton the succeeding presidents were able to build up a body of public opinion and a legislative support more favorable to the institution than had hitherto obtained. From year to year the scope of Penn State has broadened, accompanied by a corresponding increase in the service it was thereby enabled to render to the public as the people's college, and by a consistent growth in enrollment, usefulness, and prestige. In proportion as its public character and services have become more generally recognized, it has grown in the regard, good will, and affections of the people. It now not only enjoys a large measure of public favor, but has become the object of State pride because of the place it has reached as one of the great educational institutions of the country.



CONCLUSION

HAVING TRACED the history of The Pennsylvania State College from the beginning down to the present time, it would seem to be fitting to give a summary view of some of the more significant features of its development. From the higher ground to which we have climbed in the completion of our story, we can now survey its bolder outlines, passing by the rest with a light heart.

Our attention centers first on The Farmers' High School, founded under the auspices of the Pennsylvania State Agricultural Society. As part of a general movement in the eighteen-fifties looking to the democratization of education and its development along vocational lines, this school was established in the interest of the farmers of Pennsylvania and reflected the views of their leaders, whose primary purpose was to train students in the science and practice of agriculture. Behind the movement was the conscious intent and endeavor to get away from the type of higher education then in vogue in the old-time classical colleges, and to provide a more practical sort of education designed chiefly for farmers' sons. Although called a "High School," the institution was of college grade from the beginning, with a four-year course leading to the degree of Bachelor of Scientific Agriculture. After passing through many vicissitudes, which it survived with difficulty, its name was changed in 1862 to "The Agricultural College of Pennsylvania" as being more in harmony with its character

and in anticipation of its becoming the beneficiary in Pennsylvania of the benefits provided by the Morrill Act.

The Morrill Act of 1862, establishing the land-grant colleges, was a turning point in the history of The Pennsylvania State College. Pennsylvania's acceptance of this Act and the designation of The Agricultural College of Pennsylvania as its beneficiary in this Commonwealth changed the status of the institution by making it the State college of Pennsylvania—a status which was confirmed by subsequent legislative acts and by decisions rendered by the Attorney General and the courts of the Commonwealth. The Morrill Act not only supplanted the original charter of the College and changed it into a State institution which the State pledged itself to maintain, but broadened its scope to include the mechanic arts, the liberal arts, and military science and tactics. The whole subsequent history of The Pennsylvania State College revolves around the central fact that it is the land-grant college of Pennsylvania, and, as such, the ward of the Commonwealth and the chosen agent to carry out the covenant entered into between Pennsylvania and the Federal Government. By virtue of this relationship, it is the recipient of appropriations from both the Legislature and Congress and is enabled thereby to perform an important public service to the State and to the Nation.

Following the death of President Pugh in 1864, the College underwent a period of drifting and experiment for the next eighteen years. This era, known as the "dark ages" in the history of Penn State, was a period of arrested development in which the institution had five presidents, none of whom possessed the rare gifts of leadership demanded by the situation. In 1872 the name of the institution was changed to "The Pennsylvania State College," and it looked for a time as if better days were in prospect. Although some progress was made, nevertheless the College failed in this era to gain popu-

lar favor or to secure regular legislative support, with the result that its enrollment was small and it was heavily in debt. Furthermore, it was being transformed gradually into a classical college, thereby losing its natural constituency and becoming a target for criticism. The experimental farms, from which much had been expected, failed to accomplish the desired results, and for this and other reasons public confidence was impaired. Troubles multiplied on every hand, culminating in the legislative investigation of 1879, which resulted in an adverse report.

Under fire from all sides, the College authorities decided to attempt reform from within and thereby to confound their critics. The courses of study were overhauled and remodeled throughout to bring them into closer conformity to the ideals of an industrial college and to the requirements of the Morrill Act. Another legislative investigation, for which the Trustees themselves asked, exonerated the institution and strengthened its position before the world. Up to this time it had pursued a checkered course, with its policies undetermined, its physical plant inadequate, its patronage small, its finances precarious, and its general reputation leaving much to be desired. The period of drifting and experiment, with its attendant woes, came definitely to an end, however, with the election of President George W. Atherton; henceforth the history of The Pennsylvania State College becomes a story of continuing progress.

The election of Dr. Atherton was a second turning point in the history of the College, from which may be dated the beginning of a forward movement which has gathered momentum with each succeeding decade. Coming to the institution at a time when its fortunes were at a low ebb, he succeeded in making it a strong and flourishing college. Under his wise and capable administration, everything underwent a marked

change for the better. The foundations of the institution were strengthened, the scope of its work was broadened, its physical plant was enlarged, and its public relations were improved, while its student body multiplied and its finances were stabilized by regular legislative appropriations. This advance was not accomplished all at once, however, but was a gradual process. In the twenty-four years comprising the Atherton Era the year 1887 represents a mile-stone in the forward movement, which had begun five years before but had progressed slowly and had been attended by only slight changes up to this time. In this year the movement received a strong impulse and gained headway at an accelerated pace thereafter. It was at this time that the Legislature, after a long period of neglect, appropriated \$100,000 for buildings and also began the practice of making regular appropriations for the maintenance of the institution; and Congress passed the Hatch Act establishing Agricultural Experiment Stations. Thenceforward the College took a new lease on life and began to expand in many directions. Substantial new buildings were erected, the curriculum was broadened, student enrollment increased rapidly, with a corresponding increase in the faculty, and the College began to take on a university organization. Furthermore, the policies of the institution, based on a liberal interpretation of the Morrill Act, became so clearly defined and so well established that they have since undergone but little change. The struggle for public recognition and for legislative support had been largely won, and the subsequent history of Penn State becomes that of a vigorous and growthful college moving rapidly to its position of one of the leading institutions of higher learning in the land.

Despite the notable work accomplished in the Atherton Era, the College was still in a state of comparative immaturity and much remained to be done to enlighten the public as to

its mission and services as the land-grant institution of Pennsylvania. The great task in hand was to inform the public and thereby to win popular favor and increased legislative support. Since the institution was now established on firm foundations and its general lines of policy were definitely determined, the existing problem was to extend its sphere of usefulness and to hasten its development. If it were popularized before the people, it could be confidently expected that an era of expansion would follow. With this in view, the Board of Trustees selected as president Dr. Edwin Erle Sparks in the belief that he had not only the administrative ability but also the personality and general qualifications to accomplish the desired result; and in this they were not disappointed. The highly successful administration of Dr. Sparks, lasting for twelve years (1908-1920), was especially noted for the popularization of the College and its rapid expansion along all lines. Hitherto the public had not realized the stature of the institution nor its significance in the educational system of Pennsylvania, but within the next decade they were to learn more about it than they had ever known before. The keynote of the Sparks administration was "Let us carry the College to the people," and this was done by every legitimate means, the results surpassing all expectations. The College grew rapidly in popular favor, legislative appropriations increased far beyond what they had ever been, and there was an unprecedented development in every direction. The institution now attained a complete university organization and was in reality a university in all but name. To meet the needs of a growing institution, many administrative changes were effected; its affairs could no longer be administered after the manner of a small college, or even of a large college, but required a university organization. There was a considerable enlargement of the physical plant, made necessary by the

rapid growth of the student body; and much attention was paid to promoting the extension work of the institution. Evidences of progress appeared on every hand.

Following the administration of President Sparks there was a period of about seven years when the rate of progress slackened somewhat. This was due largely to a reduction of legislative appropriations during the four years of President Thomas' administration. These were lean years for the College at a time when increased funds were needed for its further expansion. Nevertheless, this period registered progress despite the obstacles encountered: it witnessed the creation of the School of Education and of the Graduate School, the establishment of the College Senate, the adoption of a permanent campus development plan, the more complete recognition of the College as a State institution, and a substantial increase in the faculty and the student body.

The forward movement, which has been continuous since 1882, received a strong impetus with the election of President Hetzel in 1926, when it renewed its accelerated pace with great sweep and power. The keynote of this administration, covering the past nineteen years and still in progress, is expansion and adjustment essential to meet the educational needs of the Commonwealth. Although the College had been advancing for more than forty years, it now entered upon a period of growth far beyond the limits reached at any previous time in its history. The scope of resident instruction has broadened, and its quality has improved; while there has been a tremendous development in the extension work of the institution and a corresponding enlargement of its research program. The faculty and the student enrollment have each increased more than 80 per cent; and the annual budget from \$3,000,000 to \$6,000,000. The physical plant has undergone a complete transformation, involving the expenditure of more

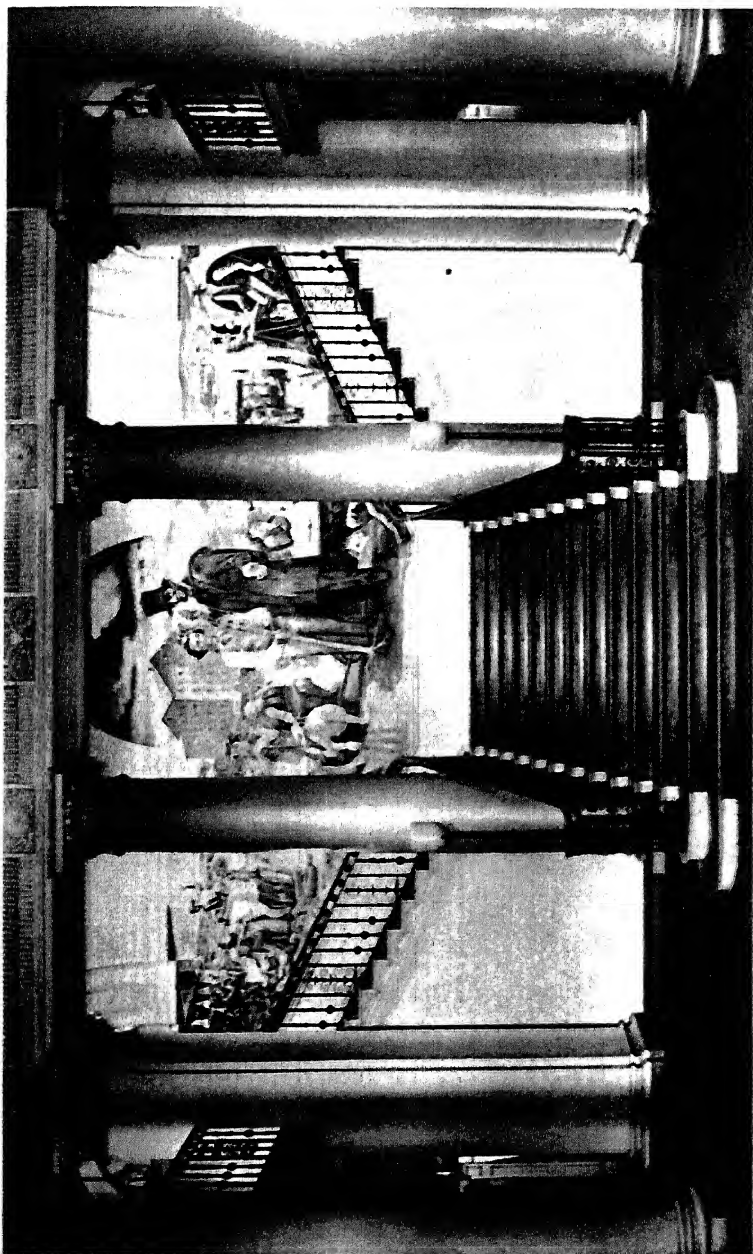
than \$16,000,000 for new buildings, the renovation of old buildings, equipment and furnishings, service facilities, and campus beautification; and the value of the plant has increased from about \$5,500,000 to more than \$22,000,000. Many administrative changes, designed to promote efficiency in instruction and in business management, have been effected. Every School and department of the institution has felt the impulse of this vigorous forward movement.

As we survey further the march of events in the history of the College from the vantage ground to which our study has brought us, certain other outstanding features claim our attention. Of these there is none more clear than the conscious aim and endeavor of the College authorities to serve the people of the Commonwealth in every way at their command. This is the ideal above all others which has molded the policies of the institution and has found concrete expression in its program. Receiving its support chiefly from public funds, it has always recognized its obligation, as the State college of Pennsylvania, to make adequate return for the financial support received from the State and Federal Governments. That it has remained true to its trust and has rendered immeasurable service to the citizens of the Commonwealth, the record clearly shows.

Throughout the earlier history of the institution, its work was hampered and its growth retarded by the lack of public recognition, accompanied by legislative neglect and inadequate financial aid. Despite these drawbacks, the College managed to survive and to broaden the scope of its work; and at length became firmly established. Gradually the people and the Legislature awoke to the value of the service rendered by the institution, and, in proportion as this service was understood, public recognition followed and legislative appropriations increased. As the College grew in favor with the people

and increased funds were placed at its disposal by the Legislature, it entered upon a career of expansion that gained for it a place among the leading educational institutions in the country.

The foregoing retrospective glance at some of the salient features in the history of The Pennsylvania State College has served to indicate the varying fortunes of the institution as it traversed the uneven road from its crude beginnings to its present impressive proportions. Let us now, forgetful for the moment of the past, center our attention on the College as it is today. Every visitor to Penn State is impressed with the natural beauty of its surroundings, located as it is in the picturesque Nittany Valley with the mountains rising in the distance on every side. This favorable impression is enhanced when one surveys the campus from the tower of Old Main; and then descends to note its features in detail as he traverses its miles of walks and roadways, and views the sixty buildings in which its work is carried on. He observes that most of these buildings, having been erected in the past twenty years, are new and commodious structures, designed by eminent architects and presenting a harmonious whole—the result of a carefully worked out development plan. He may marvel at the beauty of the campus itself, with its eighty species of trees and its four hundred varieties of shrubs, whose tasteful groupings and pleasing effects delight the eye, until he is informed that this is the work of distinguished landscape artists, who also followed a development plan of long standing. By common consent of persons who have visited all the leading educational institutions in the land and have inspected their grounds and buildings, the campus of The Pennsylvania State College has a beauty and charm, both in itself and in its natural surroundings, which is unsurpassed; and its loveliness increases with each passing year.



MURAL IN OLD MAIN, painted by Henry Varnum Poor

If the visitor is technically inclined, he might inspect the group of buildings housing the School of Engineering, beginning with Main Engineering and winding up with the Electrical Engineering Building; or he might linger in the neighboring Mineral Industries Building, or find his footsteps leading to the group of buildings housing the School of Chemistry and Physics, noting wherever he went the excellence of the equipment and laboratories, unexcelled for research. If by chance he is interested in agriculture, he will wend his way to "Ag Hill," where he will find a great array of fine structures housing the School of Agriculture, with the most improved facilities for carrying on the practical, experimental, and scientific study of agriculture; or he may be tempted to ramble around the College farms, aggregating about 2500 acres. If his mind turns to the humanities, he will want to visit the Mall to view the group of buildings devoted to the School of the Liberal Arts, the School of Education, the Library, and the Music Department. He will no doubt wish to see the mural in Old Main, the Museum and Art Gallery in the Mineral Industries Building, the Polyolith near the Armory, and the sculptured Nittany Lion adjacent to the Water Tower. If, by any chance, he is interested in sports, he will visit New Beaver Athletic Field and the imposing Recreation Building near by, or the Mary Beaver White Recreation Hall for women, on the opposite side of the campus. If he is a golf enthusiast, he might be tempted to play a game on the fine 18-hole golf course. Being now, perhaps, somewhat fatigued by his rambles, he will return to his quarters at the Nittany Lion Inn, sit at ease on the verandah, view the mountains in the mellow glow of sunset, and reflect upon the rapidity and the extent of the growth of The Pennsylvania State College. Perhaps he had not realized before what a great institution this is; but seeing

is believing, and, even though the half has not been told, its significance will not be lost on him in future.

Inasmuch as Penn State has developed so rapidly in the past thirty years, especially in the past two decades, it may well be that the outside world has hardly had time to comprehend its present proportions; perhaps its reputation has lagged behind the institution itself. It would not be surprising, therefore, if some of the older institutions, whose reputations have long since caught up with them (and possibly passed them), should have failed to realize that other institutions, younger but more vigorous and growthful, have arisen in their midst and taken a rank of which they are hardly aware. On the basis of total student enrollment for the academic year 1941-42, The Pennsylvania State College, with 7236 students, ranks nineteenth among the institutions of higher learning in the United States; and on the basis of degrees conferred (1570), it ranks fourteenth.¹ On the basis of total undergraduate enrollment (6459), it ranks seventh among the 52 land-grant colleges and universities.² It would rank still higher but for the fact that for many years it has been compelled by lack of facilities to turn away numerous applicants for admission. Unlike most state schools, Penn State does not admit all high school graduates who apply, but selects from those applying the ones with the highest scholarship rating, with the result that the standards of the College are maintained at a high level.

With its record of growth in the past and with its present commanding position in the educational world, The Pennsylvania State College will not be content to stand still in future, but will rise to meet the challenge that the years will bring.

¹ *Journal of the American Association of Collegiate Registrars*, Thirteenth Annual Report on Enrollment, November 1942.

² *Land-Grant Colleges and Universities*, Year Ended June 30, 1942, Circular No. 220, Federal Security Agency, U. S. Office of Education, Washington, D. C.

With their enlarged views and customary foresight, the Board of Trustees and the College administration are by no means disposed to set limits to the growth of the College, but are already envisaging an institution of some twelve or fifteen thousand resident students in the not distant future, and are planning to provide facilities to accommodate them. When one considers the large population and the vast wealth of the Commonwealth of Pennsylvania, the goal thus set would seem to be well within the range of accomplishment. There is nothing static about The Pennsylvania State College, which may be expected in the future, as in the past, to keep on growing in every direction, fulfilling its great mission of service to the Commonwealth and to the Nation.

BIBLIOGRAPHICAL NOTE

The source materials relating to the history of The Pennsylvania State College are abundant. These include the minutes of the Board of Trustees, of the Executive Committee of the Board, of the College Senate, of the Council of Administration, and of the Faculty, together with the annual reports of The Farmers' High School, of The Agricultural College of Pennsylvania, and of The Pennsylvania State College. The annual reports are in printed form from 1855 to 1917 inclusive; but were published at intervals thereafter, the gaps being filled in by the reports of the Presidents of the College to the Board of Trustees. The reports of the deans and, in numerous instances, those of other administrative heads are also available. Not so readily accessible is a mass of materials in the form of letters and miscellany deposited in the archives of the institution, but as yet uncatalogued.

From the beginning the College has issued an ever increasing number of catalogues, bulletins, pamphlets, booklets, and circulars dealing with every phase of its work; and in recent years such publications number about 300 annually. In the aggregate, they comprise an enormous mass of material indispensable to the investigator.

Another class of source materials, especially valuable for the study of student life and customs, is found in the various student publications of the institution. Complete files of these

are readily accessible and are essential to an understanding of student activities and opinion. The most serviceable is *The Daily Collegian*, with its predecessors—*The Free Lance*, *The State Collegian*, and *The Penn State Collegian*. Other student publications, useful though less informative, are: *La Vie*, *The Penn State Farmer*, *The Penn State Engineer*, *Old Main Bell*, *Penn State Froth*, *Student Handbook*, and *Co-Edition*. The faculty minutes, especially prior to 1900, give interesting sidelights on student escapades.

One of the best periodicals published by the College is *Penn State Alumni News*, formerly known as *Penn State Alumni Quarterly*. This publication is a mine of information about various phases of College life. Available also are some accounts of student life furnished by the alumni, but not yet published; these supply information not easily obtained from other sources, and their value, already considerable, increases with the years.

There is no full-fledged history of The Pennsylvania State College in print. In 1862 the Trustees authorized the publication of Dr. Pugh's *A Succinct History of Agricultural Education in Europe and America, together with the Circumstances of the Origin, Rise and Progress of The Agricultural College of Pennsylvania*. This was a sort of preface to the catalogue of the institution for 1862, which fills the remainder of the 62-page publication. Written when the College had been in operation about four years, it is a trustworthy source of information for the period it covers.

The next historical sketch of the institution was published in 1877; and this was incorporated in D. S. Maynard's *Industries and Institutions of Centre County*. Consisting of 41 pages under the title "The Pennsylvania State College," it was prepared by members of the faculty under the supervision of

President Calder; and its publication in this manner was authorized and paid for by the Trustees of the College. This account is helpful for the period between 1862 and 1877.

The only other historical sketch of the College that has appeared in print is Dean A. R. Warnock's *A Brief History of The Pennsylvania State College for Freshman*, published in pamphlet form in 1941 and numbering 35 pages. This booklet was published at the request of the Freshman Week Committee to aid them in their work. Intended to inform freshmen as to some of the main facts about the history of the institution, it serves admirably the purpose for which it was written.

A manuscript history of the College, covering 450 type-written pages and bringing the story down to about 1930, was prepared by Dr. E. W. Runkle. This very substantial work is the result of much painstaking research, and several copies of it have been bound to render it accessible. It is by far the most comprehensive, most scholarly, and most informing history of The Pennsylvania State College that has hitherto appeared.

APPENDICES

APPENDIX A

PRESIDENTS OF THE BOARD OF TRUSTEES AND OF THE COLLEGE; LIST OF TRUSTEES

PRESIDENTS OF THE BOARD OF TRUSTEES

<i>Frederick Watts</i>	1855-1874
<i>James Addams Beaver</i>	1874-1882
<i>Francis Jordan</i>	1882-1898
<i>James Addams Beaver</i>	1898-1914
<i>Howard Walton Mitchell</i>	1914-1929
<i>John Franklin Shields</i>	1929-

PRESIDENTS OF THE COLLEGE

<i>Evan Pugh</i>	1859-1864
<i>William Henry Allen</i>	1864-1866
<i>John Fraser</i>	1866-1868
<i>Thomas Henry Burrowes</i>	1868-1871
<i>James Calder</i>	1871-1880
<i>Joseph Shortlidge</i>	1880-1881
<i>George Washington Atherton</i>	1882-1906
<i>Edwin Erle Sparks</i>	1908-1920
<i>John Martin Thomas</i>	1921-1925
<i>Ralph Dorn Hetzel</i>	1926-

TRUSTEES OF THE PENNSYLVANIA STATE
COLLEGE (1855-1944)¹

<i>Ackley, Clarence E., Acting Superintendent of Public Instruction</i>	1939-
<i>Adams, Harvey S., '12, Elected</i>	1928-1931
<i>Ade, Lester K., Superintendent of Public Instruction</i>	1935-1939
<i>Affelder, William L., '99, Elected</i>	1927-1939
<i>Africa, J. Simpson, Secretary of Internal Affairs</i>	1882-1886
<i>Ailman, J. F., Elected</i>	1911-1913
<i>Allen, William H., President of the College</i>	1864-1866
<i>Allison, T. H., Elected</i>	1879-1881
<i>Andrews, J. H. M., '98, Elected</i>	1915-
<i>Atherton, George W., President of the College</i>	1882-1906
<i>Bagshaw, K. S., Appointed</i>	1938-
<i>Balderston, R. W., Appointed</i>	1924-1935
<i>Banes, C. H., President of Franklin Institute</i>	1885-1887
<i>Banks, John N., Elected</i>	1881-1885
<i>Barlow, Thomas W., '77, Elected and Appointed</i>	1907-1920
<i>Bayard, E. S., Elected and Appointed</i>	1906-1943
<i>Beaver, James A., Governor of the Commonwealth; Elected</i>	1873-1914
<i>Becht, J. George, Superintendent of Public Instruction</i>	1923-1925
<i>Benedict, John G., Elected</i>	1930-1942
<i>Bergner, Charles H., President of State Agricultural Society</i>	1905-1910

¹ Control of the institution is vested in a Board of Trustees consisting of 32 members. The ex-officio members include the Governor of the Commonwealth, the State Superintendent of Public Instruction, the President of the College, the State Secretary of Agriculture, and the State Secretary of Mines. Six are appointed by the Governor, and the remainder are elected by the alumni or by delegates from county agricultural and industrial societies. Formerly, ex-officio members also included the Secretary of Internal Affairs, the Adjutant General, the President of the State Agricultural Society, and the President of Franklin Institute.

<i>Biddle, Craig, Elected</i>	1859-1867
<i>Birkinbine, John, President of Franklin Institute</i>	1897-1905
<i>Bissell, W. S., President State Agricultural Society</i>	1880-1882
<i>Blight, George, Elected</i>	1867-1869
<i>Boak, J. A., Elected</i>	1942-
<i>Brown, Henry D., Appointed and Elected</i>	1915-1937
<i>Brown, Isaac B., Secretary of Internal Affairs</i>	1903-1905
<i>Browne, George B., Elected</i>	1858-1859
<i>Brumbaugh, Martin G., Governor of the Commonwealth</i>	1915-1919
<i>Burrowes, Thomas H., President of the College</i>	1868-1871
<i>Calder, James, President of the College</i>	1871-1880
<i>Calder, William, Elected</i>	1877-1881
<i>Callery, J. D., Appointed</i>	1911-1914
<i>Campbell, C. G., Elected</i>	1885-1888
<i>Campbell, J. M., Elected</i>	1877-1886
<i>Capp, Amos E., President State Agricultural Society</i>	1870-1871
<i>Carnegie, Andrew, Elected</i>	1886-1916
<i>Chadwick, Samuel, Elected</i>	1864-1866
<i>Chalfant, E. S., Appointed</i>	1931-1932
<i>Chess, Moses, Elected</i>	1860-1864
<i>Clarke, Hugh M., '13, Elected</i>	1936-1938
<i>Colfelt, L. M., Elected</i>	1898-1906
<i>Conard, M. E., Elected</i>	1902-1908
<i>Cosgrove, J. C., '05, Elected</i>	1922-1943
<i>Coulter, Richard, Jr., Elected</i>	1906-1909
<i>Craig, Robert Hall, '14, Elected</i>	1939-1944
<i>Creasy, William T., Elected</i>	1910-1920
<i>Critchfield, N. B., Secretary of Agriculture</i>	1903-1915
<i>Crow, William E., Elected</i>	1918-1922
<i>Curtin, Andrew G., Secretary of the Commonwealth; Governor</i>	1855-1858, 1861-1867

<i>Darlington, Henry T., Elected</i>	1876-1878
<i>Darlington, J. Lacy, Elected</i>	1875-1878
<i>Deike, George H., '03, Elected</i>	1925-1943
<i>Denman, P. J., Appointed</i>	1935-1939
<i>Dewey, P. H., Appointed</i>	1925-1927
<i>Dibert, Florence M., Appointed</i>	1931-1935
<i>Diehl, A. N., '98, Elected</i>	1916-1934
<i>Dorsett, E. B., Appointed</i>	1929-1935
<i>Downing, George M., '88, Elected</i>	1906-1927
<i>Downing, Samuel R., Elected</i>	1884-1902
<i>Doyle, James B., Elected</i>	1888-1891
<i>Dubois, John, Elected</i>	1876-1877
<i>Dunkel, A. K., Secretary of Internal Affairs</i>	1879-1883
<i>Earle, George H., Governor of the Commonwealth</i>	1935-1939
<i>Eby, Jacob R., President of State Agricultural Society</i>	1872-1874
<i>Edge, Thomas J., Elected; also Secretary of Agriculture</i>	1880-1884, 1893-1899
<i>Ellis, B. M., Elected</i>	1865-1871
<i>Elwyn, A. L., Named in Charter of 1855</i>	1855-1858
<i>Endlich, John, Elected</i>	1878-1879
<i>Eyre, Joshua P., Elected</i>	1857-1860
<i>Finegan, Thomas E., Superintendent of Public Instruction</i>	1919-1923
<i>Fisher, John S., Governor of the Commonwealth; Elected</i>	1923-1927, 1927-1931
<i>Forker, John N., '07, Appointed</i>	1943-
<i>Fox, Cyrus T., Elected</i>	1891-1903
<i>Frantz, Samuel O., Appointed</i>	1908-1911
<i>Fraser, John, President of the College</i>	1866-1868
<i>French, J. H., Secretary of Agriculture</i>	1935-1939
<i>Fuller, Frank M., Secretary of the Commonwealth</i>	1903-1905
<i>Gearhart, Peter, Elected</i>	1919-1922

<i>Geary, John W., Governor of the Commonwealth. . . .</i>	1867-1873
<i>Gillan, R. J., Elected.</i>	1941-
<i>Gordon, Cyrus, '66, Elected.</i>	1876-1901
<i>Gowen, James, President of State Agricultural Society.</i>	1855-1857
<i>Greenland, W. W., Adjutant General of the Commonwealth.</i>	1892-1895
<i>Greer, John M., Elected.</i>	1898-1904
<i>Griest, W. W., Secretary of the Commonwealth. . . .</i>	1899-1903
<i>Grimes, M. J., Elected.</i>	1942-
<i>Guthrie, P. N., Adjutant General of the Commonwealth.</i>	1883-1887
<i>Gyger, Furman H., Elected.</i>	1926-
<i>Haas, Francis B., Superintendent of Public Instruction.</i>	1925-1926, 1939-
<i>Haldeman, J. S., President of State Agricultural Society.</i>	1860-1861
<i>Hale, James T., Elected.</i>	1858-1865
<i>Hamill, James L., '80, Elected.</i>	1905-1936
<i>Hamilton, A. Boyd, President State Agricultural Society; Elected.</i>	1865-1869, 1869-1872
<i>Hamilton, Hayes, Elected.</i>	1867-1869
<i>Hamilton, John, '71, Secretary State Board of Agriculture; Elected.</i>	1884-1890, 1899-1903
<i>Hammond, J. W., President of State Agricultural Society.</i>	1877-1878
<i>Harris, John T., '97, Appointed, also Elected. . . .</i>	1934-1943
<i>Harrity, W. F., Secretary of the Commonwealth. . . .</i>	1891-1895
<i>Hartman, J. H., Elected.</i>	1881-1884
<i>Hartranft, John F., Governor of the Commonwealth.</i>	1873-1879
<i>Harvey, H. T., Elected.</i>	1876-1879

<i>Hastings, D. H., Adjutant General;</i>	
<i>Governor</i>	1887-1891, 1895-1899
<i>Heim, F. A., Appointed</i>	1935-1943
<i>Hellick, G. F., Elected</i>	1938-1941, 1943-
<i>Herr, Joel A., Elected</i>	1886-1901, 1903-1906
<i>Hetzel, Ralph D., President of the College</i>	1926-
<i>Hiester, A. O., Named in Charter of 1855</i>	1855-1874
<i>Hiester, Charles E., Elected</i>	1860-1863
<i>Hiester, Gabriel, Elected</i>	1879-1912
<i>Hiester, William M., Secretary of the Commonwealth</i>	1858-1861
<i>Higbee, E. E., Superintendent of Public Instruction</i>	1881-1889
<i>Hildrup, W. T., Elected</i>	1874-1880
<i>Hill, William F., Elected</i>	1901-1913
<i>Holstein, W. H., Elected</i>	1874-1876
<i>Hood, George W., Elected</i>	1886-1898
<i>Horst, Miles, '14, Secretary of Agriculture</i>	1943-
<i>Hoyt, Henry M., Governor of the Commonwealth</i> ...	1879-1883
<i>Huff, Lloyd B., Appointed</i>	1906-1911
<i>Hutchinson, G. G., Elected</i>	1906-1927
<i>Jackson, J. P., '89, Appointed</i>	1915-1916
<i>James, Arthur H., Governor of the Commonwealth</i> ...	1939-1943
<i>Jessup, William, Named in the Charter of 1855</i> ...	1855-1858
<i>Johnson, Alba B., Elected</i>	1922-1927
<i>Jones, E. E., Elected</i>	1921-1924
<i>Jordan, Charles G., Secretary of Agriculture</i>	1927-1931
<i>Jordan, Francis, Secretary of the Commonwealth;</i> <i>also Elected</i>	1867-1898
<i>Kaine, Daniel, Elected</i>	1863-1879
<i>Keith, J. A. H., Superintendent of Public Instruction</i>	1927-1931
<i>Kelly, James, Elected</i>	1866-1880

<i>Kendall, J. L., Appointed</i>	1915-1923
<i>Kiess, Edgar R., Appointed</i>	1913-1930
<i>Knoche, Frank, Elected</i>	1888-1891
<i>Knox, Thomas P., President of State Agricultural Society</i>	1862-1864
<i>Lamade, H. J., '12, Appointed</i>	1939-
<i>Latta, James W., Adjutant General; Secretary of Internal Affairs</i>	1875-1883, 1895-1903
<i>Lewis, Robert R., Elected</i>	1927-1943
<i>Light, John H., Secretary of Agriculture; also Elected</i>	1939-
<i>Linde, Eric, Elected</i>	1943-
<i>Long, James B., '07, Elected</i>	1943-
<i>Lowry, Milton W., '84, Appointed</i>	1907-1924
<i>Lyons, Hannah McK., Appointed</i>	1931-1939
<i>McAllister, Archibald, Elected</i>	1858-1867
<i>McAllister, H. N., Named in Charter of 1855; also Elected</i>	1855-1873
<i>McCandless, William, Secretary of Internal Affairs</i>	1875-1879
<i>McClelland, William, Adjutant General</i>	1891-1892
<i>McCormick, C. S., Elected</i>	1881-1886
<i>McCormick, John H., Appointed</i>	1930-1931
<i>McCormick, Vance C., Elected</i>	1908-
<i>McDowell, John, President of State Agricultural Society</i>	1888-1899
<i>McFadden, L. T., Elected</i>	1914-1924
<i>McFarland, Irvin, Elected</i>	1878-1881
<i>McKee, James Y., Acting President of the College</i>	1881-1882
<i>McSparran, John A., Secretary of Agriculture; also Elected</i>	1924-1935
<i>Maize, Richard, Secretary of Mines</i>	1941-
<i>Martin, David, Secretary of the Commonwealth</i>	1897-1899
<i>Martin, Edward, Governor of the Commonwealth</i> ...	1943-

<i>Mauthe, J. L., '13, Elected</i>	1938-
<i>Mellon, W. L., Elected</i>	1927-1932
<i>Menges, Franklin, Elected</i>	1910-1913
<i>Miles, James, Sr., Named in Charter of 1855</i>	1855-1868
<i>Miles, James, Jr., President of State Agricultural Society; also Elected</i>	1876-1884
<i>Milholland, James, '11, Elected</i>	1930-
<i>Miller, Charles, Elected</i>	1903-1910
<i>Mitchell, A. W., '99, Elected</i>	1917-1928
<i>Mitchell, H. Walton, '90, Elected</i>	1902-1929
<i>Montz, H. W., '07, Appointed</i>	1942-
<i>Moore, D. G., Appointed</i>	1934-1937
<i>Moore, W. G., Elected</i>	1879-1881
<i>Morris, John C., President of State Agricultural Society</i>	1871; also 1879
<i>Moses, Harry M., Appointed</i>	1939-
<i>Munce, R. L., Elected</i>	1913-1925
<i>Musser, Boyd A., '94, Elected</i>	1927-1942
<i>Mylin, Amos H., Elected</i>	1883-1902
<i>Nick, E. W., '07, Elected</i>	1931-1943
<i>Norman, G. M., '99, Elected</i>	1942-
<i>Olmstead, Marlin E., Appointed</i>	1906-1913
<i>Orvis, Ellis L., '76, Elected</i>	1901-1925
<i>Orvis, John H., Elected</i>	1875-1893
<i>Packer, William F., Governor of the Commonwealth</i>	1858-1861
<i>Parrisch, Charles, Elected</i>	1876-1877
<i>Patterson, William H., Elected</i>	1908-1917
<i>Pattison, Robert E., Governor of the Commonwealth</i>	1883-1887, 1891-1895
<i>Patton, Charles E., Secretary of Agriculture</i>	1915-1919
<i>Paxson, J. A., President of State Agricultural So- ciety</i>	1887-1888

<i>Pennypacker, S. W., Governor of the Commonwealth</i>	1903-1907
<i>Pettebone, E. R., Elected</i>	1914-1925
<i>Phillips, Clara C., Appointed</i>	1926-
<i>Pinchot, Gifford, Governor of the Commonwealth</i>	1923-1927, 1931-1935
<i>Piolett, Victor E., Elected</i>	1878-1884
<i>Pollock, James, Governor of the Commonwealth</i>	1855-1858
<i>Poole, Ernest J., Elected</i>	1930-1937
<i>Prentis, H. W., Jr., Elected</i>	1938-1942
<i>Price, Charles S., Appointed</i>	1912-1914
<i>Pugh, Evan, President of the College</i>	1859-1864
<i>Quay, M. S., Secretary of the Commonwealth</i>	1873-1882
<i>Quigley, J. E., '94, Elected</i>	1907-1915
<i>Rasmussen, Fred, Secretary of Agriculture; also Appointed</i>	1919-1925
<i>Read, Augustus C., Elected</i>	1906-1916
<i>Reeder, Eastburn, Elected</i>	1885-1888
<i>Reeder, Frank, Secretary of the Commonwealth</i>	1895-1897
<i>Rhone, Leonard, Elected</i>	1880-1886
<i>Robb, James F., Elected</i>	1890-1896
<i>Roberts, A. S., Named in Charter of 1855</i>	1855-1857
<i>Roberts, Charles W., Elected</i>	1887-1895
<i>Roberts, William B., Elected</i>	1871-1874
<i>Rogers, R. E., President of Franklin Institute</i>	1876-1879
<i>Rothrock, W. P., '93, Elected</i>	1924-1930
<i>Rowland, R. W., '17, Appointed</i>	1939-
<i>Rule, James N., Superintendent of Public Instruction</i>	1931-1935
<i>Schaeffer, Nathan C., Superintendent of Public Instruction</i>	1893-1919
<i>Schwab, Charles M., Elected</i>	1902-1932

<i>Scott, George, President of State Agricultural Society</i>	1874-1876
<i>Scott, T. A., Elected</i>	1876-1877
<i>Shields, J. Franklin, '92, Elected</i>	1905-
<i>Shortlidge, Joseph, President of the College</i>	1880-1881
<i>Sickles, T. E., Elected</i>	1881-1882
<i>Slifer, Eli, Secretary of the Commonwealth</i>	1861-1867
<i>Slocum, George W., Elected</i>	1932-
<i>Smith, A., Elected</i>	1876-1879
<i>Smith, C. Alfred, '61, Elected</i>	1882-1885
<i>Snodgrass, James McK., Elected</i>	1856-1862
<i>Sparks, Edwin Erle, President of the College</i>	1908-1920
<i>Sproul, William C., Governor of the Commonwealth</i>	1919-1923
<i>Starkweather, S. W., Elected</i>	1877-1886
<i>Steinman, J. Hale, Appointed</i>	1935-1939
<i>Stenger, William, Secretary of the Commonwealth</i> ..	1883-1887
<i>Stewart, T. J., Secretary of Internal Affairs; Adjutant General</i>	1887-1905
<i>Stone, Charles W., Secretary of the Commonwealth; Elected</i>	1887-1890, 1894-1908
<i>Stone, William A., Governor of the Commonwealth</i> ..	1899-1903
<i>Strohm, John, Named in the Charter of 1855</i>	1855-1858
<i>Stuart, Edwin S., Governor of the Commonwealth</i> ..	1907-1911
<i>Taggart, David, President of State Agricultural Society</i>	1857-1859
<i>Tatham, W. P., President of Franklin Institute</i> ...	1880-1885
<i>Taylor, A. W., Elected</i>	1872-1878
<i>Taylor, W. Stewart, '23, Appointed</i>	1943-
<i>Teas, William H., '97, Elected</i>	1929-1930
<i>Tener, John K., Governor of the Commonwealth</i> ...	1911-1915
<i>Thomas, John Ira, Secretary of Mines</i>	1939-1940
<i>Thomas, John M., President of the College</i>	1921-1925
<i>Thomas, R. H., Elected</i>	1896-1903

<i>Tiffany, William S., Elected</i>	1943-
<i>Turner, Joseph C., Elected</i>	1869-1875
<i>Tyson, Chester J., Elected</i>	1912-1938
<i>Walker, R. C., Named in Charter of 1855</i>	1855-1856
<i>Walker, William H., '90, Elected</i>	1907-1927
<i>Waller, D. J., Superintendent of Public Instruction</i>	1890-1893
<i>Wallis, J. T., Elected</i>	1913-1922
<i>Warriner, Jesse B., '05, Elected; also Appointed</i> ...	1926-1931
<i>Watts, Frederick, Named in Charter of 1855</i>	1855-1875
<i>Weichel, Edgar C., Appointed</i>	1939-
<i>Weller, John S., '89, Elected</i>	1896-1902
<i>White, H. V., Elected; also Appointed</i>	1886-1923
<i>White, Harry, Elected</i>	1868-1872
<i>White, James G., Elected</i>	1903-1942
<i>Wickersham, James P., Superintendent of Public Instruction</i>	1875-1881
<i>Wilhelm, A., President of State Agricultural Society</i>	1885-1887
<i>Willits, Frank P., Secretary of Agriculture; also Elected</i>	1923-1943
<i>Wilson, Joseph M., President of Franklin Institute</i>	1887-1896
<i>Wise, W. S., Appointed</i>	1924-1927
<i>Woodward, John A., Elected</i>	1884-1911
<i>Young, Hiram, President of State Agricultural Society</i>	1899-1905
<i>Zook, Ralph T., Appointed</i>	1932-1934

APPENDIX B

AN ACT TO INCORPORATE THE FARMERS' HIGH SCHOOL
OF PENNSYLVANIA

SECTION 1. *Be it enacted by the Senate and House of Representatives of the Commonwealth of Pennsylvania in General Assembly met, and it is hereby enacted by the authority of the same,* That there be and is hereby erected and established, at the place which shall be designated by the authority, and as hereinafter provided, an institution for the education of youth in the various branches of science, learning, and practical agriculture, as they are connected with each other, by the name, style, and title of the Farmers' High School of Pennsylvania.

SECTION 2. That the institution shall be under the management and government of a board of trustees, of whom there shall be thirteen, and seven of whom shall be a quorum, competent to perform the duties hereinafter authorized and required.

SECTION 3. That the Governor, Secretary of the Commonwealth, the president of the Pennsylvania State Agricultural Society, and the principal of the institution, shall each be *ex-officio* a member of the board of trustees, and they, with Dr. Alfred L. Elwyn and Algernon S. Roberts, of the city of Philadelphia; H. N. McAllister, of the county of Centre; R. C. Walker, of the county of Allegheny; James Miles, of the county of Erie; John Strohm, of the county of Lancaster; A. O. Hiester, of the county of Dauphin; William Jessup, of the county of Susquehanna, and Frederick Watts, of the county of Cumberland, shall constitute the first board of trustees; which said trustees and their successors in office, are hereby erected and declared to be a body politic and corpo-

rate in law, with perpetual succession, by the name, style, and title of the Farmers' High School of Pennsylvania, by which name and title the said trustees, and their successors, shall be able and capable in law to take by gift, grant, sale, or conveyance, by bequest, devise, or otherwise, any estate in any lands, tenements, and hereditaments, goods, chattels, or effects, and at pleasure to alien or otherwise dispose of the same to and for the use and purpose of the said institution: *Provided, however,* That the annual income of the said estate so held, shall at no time exceed twenty-five thousand dollars; and the said corporation shall, by the same name, have power to sue and be sued, and generally to do and transact all and every business touching or concerning the premises, or which shall be necessarily incidental thereto, and to hold, enjoy, and exercise all such powers, authorities, and jurisdiction as are customary within the colleges within this Commonwealth.

SECTION 4. That the same trustees shall cause to be made a seal, with such device as they may think proper, and by and with which all the deeds, diplomas, certificates and acts of the institution shall be authenticated, and they may at their pleasure alter the same.

SECTION 5. That at the first meeting of the board of trustees, the nine named, who are not *ex-officio* members, shall, by themselves and by lot, be divided into three classes of three each, numbered one, two, and three; the appointment hereby made of class number one, shall terminate on the first Monday of October, one thousand eight hundred and fifty-six; number two on the first Monday of October, one thousand eight hundred and fifty-seven, and number three on the first Monday of October, one thousand eight hundred and fifty-eight; and upon the termination of such office of such directors, to wit: On the first Monday of October in every

year an election shall be held at the institution to supply their place, and such election shall be determined by the votes of the members of the executive committee of the Pennsylvania State Agricultural Society, and the votes of three representatives duly chosen by each county agricultural society in this Commonwealth which shall have been organized at least three months preceding the time of election, and it shall be the duty of said board of trustees to appoint two of their number as judges to hold such election, to receive and count the votes, and return the same to the board of trustees with their certificate of the number of votes cast, and for whom, whereupon the said board shall determine who have received the highest number of votes, and who are thereby elected.

SECTION 6. That on the second Thursday of June after the passage of this act, the board of trustees, who are hereby appointed, shall meet at Harrisburg, and proceed to the organization of an institution and selection of the most eligible site within the Commonwealth of Pennsylvania for its location, where they shall purchase or obtain by gift, grant, or otherwise, a tract of land containing at least two hundred acres, and not exceeding two thousand acres, upon which they shall procure such improvements and alterations to be made, as will make it an institution properly adapted to the instruction of youth in the art of farming according to the meaning and design of this act. They shall select and choose a principal for said institution, who, with such scientific attainments and capacity to teach as the board shall deem necessary, shall be a good practical farmer; he, with such other persons as shall, from time to time, be employed as teachers, shall comprise the faculty, under whose control the immediate management of the institution, and the instruction of all the youth committed to its care shall be, subject, however, to the revision

and all the orders of the board of trustees; there shall be a quarterly meeting of the board of trustees at the institution, and as much oftener as shall be necessary, and they shall determine; the board shall have power to pass all such by-laws, ordinances, and rules as the good government of the institution shall require, and therein to prescribe what shall be taught to and what labor performed by the pupils, and generally to do and perform all such administrative acts as are usually performed by and within the appropriate duty of a board of trustees, and shall, by a secretary of their appointment, keep a minute of the proceedings and action of the board.

SECTION 7. That it shall be the duty of the board of trustees as soon and as often as the exigencies of the case may require, in addition to the principal, to employ such other professors, teachers, or tutors as shall be qualified to impart to pupils under their charge a knowledge of the English language, grammar, geography, history, mathematics, chemistry, and such other branches of natural and exact science as will conduce to the proper education of a farmer; the pupils shall, themselves, at such proper times and seasons as shall be prescribed by the board of trustees, perform all the labor necessary in the cultivation of the farm, and shall thus be instructed and taught all things necessary to be known by a farmer.

SECTION 8. That the board of trustees shall annually elect a treasurer, who shall receive and disburse the funds of the institution, and perform such other duties as shall be required of him, and from whom they shall take such security for the faithful performance of his duty as necessity shall require; and it shall be the duty of said board of trustees, annually, on or before the first of December, to make out a full and detailed account of the operations of the institution

for the preceding year, and an account of all its receipts and disbursements, and report the same to the Pennsylvania State Agricultural Society, who shall embody said report in the annual report which, by existing laws, the said society is bound to make and transmit to the Legislature on or before the first Monday of January each and every year.

SECTION 9. That it shall be lawful for the Pennsylvania State Agricultural Society to appropriate, out of their funds to the object of this act, a sum not exceeding ten thousand dollars, whenever the same shall be required, and to make such further appropriations, annually, out of their funds, as will aid in the prosecution of this object, and it shall be the duty and privilege of said society, at such time as they shall deem expedient by their committee, officers, or otherwise, to visit the said institution and examine into the details of its management.

SECTION 10. That the act to incorporate the "Farmers' High School of Pennsylvania," approved the thirteenth day of April, Anno Domini, one thousand eight hundred and fifty-four, be and the same is hereby repealed.

APPROVED—The 22d day of February, A.D., 1855
Jas. Pollock

APPENDIX C

AN ACT DONATING PUBLIC LANDS TO THE SEVERAL STATES AND TERRITORIES WHICH MAY PROVIDE COLLEGES FOR THE BENEFIT OF AGRICULTURE AND THE MECHANIC ARTS.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That there be granted to the several States, for the purposes hereinafter mentioned, an amount of public land, to be appropriated to

each State a quantity equal to thirty thousand acres for each senator and representative in Congress to which the States are respectively entitled by the apportionment under the census of eighteen hundred and sixty: *Provided*, That no mineral lands shall be selected or purchased under the provisions of this act.

SECTION 2. *And be it further enacted*, That the land aforesaid, after being surveyed, shall be apportioned to the several States in sections or subdivisions of sections, not less than one quarter of a section; and whenever there are public lands in a State subject to sale at private entry at one dollar and twenty-five cents per acre, the quantity to which said State shall be entitled shall be selected from such lands within the limits of such State, and the Secretary of the Interior is hereby directed to issue to each of the States in which there is not the quantity of public lands subject to sale at private entry at one dollar and twenty-five cents per acre, to which said State may be entitled under the provisions of this act, land scrip to the amount in acres for the deficiency of its distributive share: said scrip to be sold by said States and the proceeds thereof applied to the uses and purposes prescribed in this act, and for no other use or purpose whatsoever: *Provided*, That in no case shall any State to which land scrip may thus be issued be allowed to locate the same within the limits of any other State, or of any Territory of the United States, but their assignees may thus locate said land scrip upon any of the unappropriated lands of the United States subject to sale at private entry at one dollar and twenty-five cents, or less, per acre: *And provided, further*, That not more than one million acres shall be located by such assignees in any one of the States: *And provided further*, That no such location shall be made before one year from the passage of this act.

SECTION 3. *And be it further enacted,* That all the expenses of management, superintendence, and taxes from date of selection of said lands, previous to their sales, and all expenses incurred in the management and disbursement of the moneys which may be received therefrom, shall be paid by the States to which they belong, out of the treasury of said States, so that the entire proceeds of the sale of said lands shall be applied without any diminution whatever to the purposes hereinafter mentioned.

SECTION 4. *And be it further enacted,* That all the moneys derived from the sale of the lands aforesaid by the States to which the lands are apportioned, and from the sales of the land scrip hereinbefore provided for, shall be invested in stocks of the United States, or of the States, or some other safe stocks, yielding not less than five per centum upon the par value of said stocks; and that the moneys so invested shall constitute a perpetual fund, the capital of which shall remain forever undiminished, (except so far as may be provided in section fifth of this act,) and the interest of which shall be inviolably appropriated, by each State which may take and claim the benefit of this act, to the endowment, support, and maintenance of at least one college where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such manner as the legislatures of the States may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life.

SECTION 5. *And be it further enacted,* That the grant of land and land scrip hereby authorized shall be made on the following conditions, to which, as well as to the pro-

visions hereinbefore contained, the previous assent of the several States shall be signified by legislative acts:

First. If any portion of the fund invested, as provided by the foregoing section, or any portion of the interest thereon, shall, by any action or contingency, be diminished or lost, it shall be replaced by the State to which it belongs, so that the capital of the fund shall remain forever undiminished; and the annual interest shall be regularly applied without diminution to the purposes mentioned in the fourth section of this act, except that a sum, not exceeding ten per centum upon the amount received by any State under the provisions of this act, may be expended for the purchase of lands for sites or experimental farms, whenever authorized by the respective legislatures of said States.

Second. No portion of said fund, nor the interest thereon, shall be applied, directly or indirectly, under any pretence whatever, to the purchase, erection, preservation, or repair of any building or buildings.

Third. Any State which may take and claim the benefit of the provisions of this act shall provide, within five years, at least not less than one college, as described in the fourth section of this act, or the grant to such State shall cease; and said State shall be bound to pay the United States the amount received of any lands previously sold, and that the title to purchasers under the State shall be valid.

Fourth. An annual report shall be made regarding the progress of each college, recording any improvements and experiments made, with their cost and results, and such other matters, including State industrial and economical statistics, as may be supposed useful; one copy of which shall be transmitted by mail free, by each, to all the other colleges which may be endowed under the provisions of this act, and also one copy to the Secretary of the Interior.

Fifth. When lands shall be selected from those which have been raised to double the minimum price, in consequence of railroad grants, they shall be computed to the States at the maximum price, and the number of acres proportionally diminished.

Sixth. No State while in a condition of rebellion or insurrection against the government of the United States shall be entitled to the benefit of this act.

Seventh. No State shall be entitled to the benefits of this act unless it shall express its acceptance thereof by its legislature within two years from the date of its approval by the President.

SECTION 6. *And be it further enacted,* That land scrip issued under the provisions of this act shall not be subject to location until after the first day of January, one thousand eight hundred and sixty-three.

SECTION 7. *And be it further enacted,* That the land officers shall receive the same fees for locating land scrip issued under the provisions of this act as is now allowed for the location of military bounty land warrants under existing laws; *Provided,* their maximum compensation shall not be thereby increased.

SECTION 8. *And be it further enacted,* That the Governors of the several States to which scrip shall be issued under this act shall be required to report annually to Congress all sales made of such scrip until the whole shall be disposed of, the amount received for the same, and what appropriation has been made of the proceeds.

APPROVED, July 2, 1862 .

A. Lincoln

APPENDIX D

AN ACT TO ACCEPT THE GRANT OF PUBLIC LANDS BY THE UNITED STATES TO THE SEVERAL STATES, FOR THE ENDOWMENT OF AGRICULTURAL COLLEGES.

WHEREAS, By an act of Congress, passed the second day of July, one thousand eight hundred and sixty-two, a grant of land was made to the several States and Territories, which may provide colleges for the benefit of agriculture and the mechanic arts equal to thirty thousand acres for each senator and representative in Congress to which the States are respectively entitled by the apportionment under the census of one thousand eight hundred and sixty, which act of Congress requires that the several States, in order to entitle them to the benefit of said grant, should, within two years from the date of this act, express their acceptance of the same:

And whereas, The Legislature of Pennsylvania has already shown its high regard for the agricultural interests of the State by the establishment of the Agricultural College of Pennsylvania, and by making liberal appropriations thereto; therefore,

SECTION 1. *Be it enacted by the Senate and House of Representatives of the Commonwealth of Pennsylvania in General Assembly met, and it is hereby enacted by the authority of the same*, That the act of Congress of the United States, passed the second day of July, one thousand eight hundred and sixty-two, entitled "An act donating lands to the several States and Territories which may provide colleges for the benefit of agriculture and the mechanic arts," be and the same is hereby accepted by the State of Pennsylvania, with all its provisions and conditions, and the faith of the State is hereby pledged to carry the same into effect.

SECTION 2. That the Surveyor General of the State of Pennsylvania is hereby authorized and required to do every act and thing necessary to entitle this State to its distributive share of land scrip under the provisions of the said act of Congress, and when the said scrip is received by him to dispose of the same under such regulations as the board of commissioners hereafter appointed by this act shall prescribe.

SECTION 3. That the Governor, the Auditor General, and the Surveyor General are hereby constituted a board of commissioners, with full power and authority to make all needful rules and regulations respecting the manner in which the Surveyor General aforesaid shall dispose of the said land scrip, the investment of the proceeds thereof in the State stocks of this State, and apply interest arising therefrom as herein directed; and in general to do all and every act or acts necessary to carry into full effect the said act of Congress: *Provided*, That no investment shall be made in any other stocks than those of the United States or of this Commonwealth.

SECTION 4. That until otherwise ordered by the Legislature of Pennsylvania, the annual interest accruing from any investment of the funds acquired under the said act of Congress is hereby appropriated, and the said commissioners are directed to pay the same to the Agricultural College of Pennsylvania for the endowment, support, and maintenance of said institution, which college is now in full and successful operation, and where the leading object is, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts.

SECTION 5. That the said Agricultural College of Pennsylvania shall, on or before the first day of February of each year, make a report to the Legislature of the receipts and expenditures of the said institution for the preceding year.

APPROVED—The 1st day of April, A.D., 1863

Andrew Gregg Curtin

INDEX

- Ackerly, A. J., 97
 Adams Act, 115, 270, 278, 279
 Adelphi Club, 181
 Agee, Alva, 271, 277, 395, 398
 Agricultural and Biological Chemistry,
 Department of, 272, 275, 280
 Agricultural College of Pennsylvania,
 The, 38, 42, 43-44, 49, 50, 51, 62, 66,
 68, 73, 76, 472, 478, 483, 484. *See also*
 Farmers' High School, Pennsylvania
 State College
 Agricultural Economics, Department of,
 275, 280
 Agricultural Education, Department of,
 272, 275
 Agricultural Engineering, Department
 of, 211, 276
 Agricultural Experiment Station, 128,
 130, 131, 133, 142, 149, 150, 270, 271,
 279-280, 479
 Agricultural Extension, Department of,
 143-144, 168, 271, 277, 398-402
 Agricultural Library, 361
 Agricultural Prize, 194
 Agricultural Societies, 3-4
 Agriculture, School of, created, 144, 269;
 sketch of, 266-282; correspondence
 courses in, 143, 272, 277, 394-395, 396;
 extension in, 143-144, 168, 271, 277,
 398-402; buildings and facilities of,
 149-153, 253, 281-282; research in, 168,
 204, 277-280, 479-480; enrollment in,
 267-268, 272; resident instruction in,
 272-276; budget of, 282; mentioned,
 229, 258, 261, 270, 337, 338, 360, 395,
 414, 491
 Agronomy, Department of, 273
 Ahrends, Capt. Arthur E., 363
 Aikens, Claude, 361
 Albany, 115
 Alderfer, Harold F., 260, 332
 Alexander, C. T., 63, 107
 All-College Cabinet, 426
 All-College President, 426
 Allegheny College, 62
 Allegheny County, 12
 Allen, Maurice C, 363
 Allen, President William Henry, elected
 60; characterized, 61, 65; administra-
 tion of, 61-65; resignation of, 65;
 mentioned, 51, 61, 497, 498
 Allentown, 404
 Allison, R. C., 23, 24, 38
 "Alma Mater," College song, 183, 439
 Altoona, 258, 396, 413
 Alumni, as Trustees, 83, 84, 148, 263*n*,
 378; conduct "Booster Campaign,"
 380; in First World War, 380; number
 of 381
 Alumni Advisory Committee, 456, 457
 Alumni Association, organized, 84, 378;
 sketch of, 377-381; influence of, 378-
 379; reorganization of, 379-380; pub-
 lications of, 379, 380, 381; Home Com-
 ing Day of, 380; office and staff of, 381
 Alumni Clubs, 381
Alumni Directory, 381
Alumni News, 380, 381

- Alumni Quarterly*, 380
 Alumni Trustees, 83, 84, 148, 263*n*, 378
 American Association of Chemical Engineers, 305, 307
 American Association of University Professors, 246
 American Chemical Association, 308
 American Philosophical Society, 33
 Amherst College, 24, 297
 Anderson, D. A., 337, 338
 Andrew Carnegie Beneficiary Loan Fund, 157
 Andrews, J. H. M., v, 182, 212, 255, 264, 498
 Animal Husbandry, Department of, 273, 280
 Anti-Masonic Party, 72
 Appropriations, granted by the General Assembly of Pennsylvania, 17, 35-36, 79-80, 112, 128, 129, 130, 132, 133, 152-153, 200, 201, 209, 226-227, 250, 251-252, 278, 288, 311, 312, 313, 314, 316, 320, 341, 357, 397, 450; granted by Congress, Morrill Act, 44-45; Hatch Act, 128, 133; Second Morrill Act, 134, 270; Adams Act, 270; Purnell Act, 278, 279; Nelson Amendment, 270; Bankhead-Jones Act, 278; Smith-Hughes Act, 275; Smith-Lever Act, 277
 Architecture, Department of, 290-291
 Ardery, Col. E. D., 364
 Armory, 130, 188, 189, 312, 363, 441, 469
 Armsby, H. P., 133, 135, 149, 158, 168, 175, 212, 258, 269, 270, 278, 279
 Artists' Course, 433
 Arts and Science Extension, 259, 329, 333, 409-410
 Assistant to the President in Charge of Business and Finance, 260
 Assistant to the President in Charge of Extension, 260, 411
 Assistant to the President in Charge of Resident Instruction, 259
 Association of Collegiate Registrars, 372, 374
 Atherton, President George Washington, election of, 113; characterized, 115-116, 138; administration of, 114-164; views and policies of, 116-120, 125-126, 139-141; strengthens foundations and broadens scope of the College, 125, 128, 139-144; building program of, 129-132, 149-154; faculty under, 135, 136, 148, 158-160, 165; student enrollment under, 135-136, 148, 164; attitude of toward humanistic studies, 138-141, 324-325, 326; administrative changes under, 144-146; curricula under, 143; death of, 163; summary of administration of, 164-166; student life and customs in the time of, 172-194; mentioned, 69, 104, 183, 189, 192, 230, 269, 283, 285, 359, 482, 485, 486, 497, 498
 Atherton Library of Economics and Political History, 359
 Athletic Advisory Board, 457
 Athletic Advisory Committee, 379
 Athletic Association, 187, 449, 453, 454, 455, 456, 457, 469
 Athletics, 173, 186-187; sketch of, 445-470. *See also* Baseball, Basketball, Boxing, Football, Golf, Soccer, Tennis, Track, Wrestling
 Bacteriology, Department of, 261, 276
 Bailey, James, 12
 Baird, Samuel, 23, 24, 38
 Baker, Elias, 12, 13, 14
 Baker, H. P., 271, 273
 Baker, Thomas R., 38, 40
 Baker University, 24
 Baldwin, Marcus E., 447
 Bankhead-Jones Act, 278
 Banks, J. N., 39, 498
 Banner, F. C., 330
 Barclay, W. L., 467
 Barnard, L. H., 90, 135, 284
 Baseball, 446-447, 466-467
 Basketball, 450, 469
 Bayard, E. S., 212, 264, 498
 Bayard, George A., 12

- Baylies, Major James, 215, 364
 Beaver, Governor James A., 55, 82, 86,
 99-100, 103, 107, 115, 124, 128, 134,
 158, 183, 212, 359, 497, 498
 Beaver, Thomas, 182
 Beaver Alcove (Library), 359
 Beaver Field (Old), 187, 450, 454
 Beaver Field (New), 349-350, 366, 453,
 456, 466
 Bebout, J. D., 462
 Bedenk, F. J., 463, 467
 Beede, Victor A., 273
 Beese, C. W., 290
 Baehr, Lt. C. A., 363
 Bell, Charles J., 297
 Bell, Louis H., 370
 Bell, Major, O. W., 363
 Bellefonte, 11, 12, 36, 41, 52, 56, 93,
 108, 121, 163, 182, 446, 454
 Bellefonte Academy, 446
 Bellefonte Central Railroad, 162-163,
 442
 Benedict, Martin G., 337
 Beneficiary loan funds, 157
 Bentley, F. L., 273
 Bermuda Islands, 65
 Bernhard, R. K., 291
 Bernreuter, R. G., 339
 Berryman, R. N., 462
 Beta Theta Pi fraternity, 181
 Bezdek, Hugo, 257, 344, 347, 458, 459,
 462, 463, 464, 465, 466, 467, 470
 Bezdek Trophy, 459
 Biddle, Craig, 55, 499
 Bigler, Governor William, 5
 Biology, 142
 Bischoff, Eugene C., 349
 Blair, David, 13
 Blair County, 13
 Blaisdell, Thomas C., 213, 220, 327, 333
 Blakeslee, Howard W., 369
 Blasingame, R. U., 276
 Blight, George W., 99, 358, 499
 Bloomsburg State Normal School, 166
 Blue Band, 331
 Blue Key, 419
 Boal, Capt. John, 40
 Boalsburg, 23, 40, 162, 446
 Board of Athletic Control, 381, 457
 Boarding clubs, 91, 174-175
 Bogart, Madge T., 400
 Bond Issue Campaign, 248-249
 Bonine, C. A., 317
 Borland, Andrew A., 274, 383
 Botany, Department of, 228, 274-275,
 280, 303
 Botany Building, 130, 131, 142, 149, 250,
 351
 Boucke, O. F., 229, 330, 335
 Bowdoin College, 61
 Boxford, 114
 Boxing, 470
 Bracken, John R., 274
 Bradley, Helen M., 148, 358, 359
 Branch libraries, 358, 360
 Breneman, A. A., 84, 93, 267, 297, 300,
 378
 Breneman, P. B., 291
 Bressler, P. G., 271
 "Bright Angel" (dormitory), 153, 366
 Brown, Henry D., 224, 264
 Brown, Margaret, 400
 Brown, P. M., 467
 Brumbaugh, Agnes, 400
 Buchanan, President James, 43, 55
 Buchman, F. N. D., 383
 Buckhout, William A., 93, 105, 133, 135,
 142, 158, 161, 163, 168, 212, 269, 273,
 274, 276, 278, 280, 297, 311, 357, 441,
 447
Bucknell Mirror, 448
 Bucknell University, 235, 447, 452, 461,
 462, 466
 Bucks County, 99
 Buildings, constructed under President
 Pugh, 21-23; under President Atherton,
 129-132, 149-154; under President
 Sparks, 209-211; under President
 Thomas, 231; under President Hetzel,
 247-254; mention or description of,
 130, 132, 152, 168, 169, 173, 175, 226,
 268-269, 274, 281-282, 284, 286, 288-

- 289, 294-295, 301, 305, 309-310, 313, 314, 321, 327, 335, 336, 343-344, 358, 361, 383
- Bullinger, C. E., 290
- Bureau of Business Research, 334
- Burrowes, President Thomas Henry, elected, 71; characterized, 72-73; administration of, 73-76; death of, 75; mentioned, 77, 267, 324, 343, 497, 499
- Business office of the College, 167, 204-205, 260
- Business Survey, in the Department of Economics and Sociology, 330-331
- Butz, George C., 133, 159, 161, 271, 273, 278, 448
- Cacophonous Quartet, 183
- Cadet Band, 183-184, 422
- Cadet Corps, 365
- Calder, President James, elected, 76; characterized, 76-77; administration of, 76-87; policy of, 76-77; "classical era" of College history, 76; admission of women students, 78-79; name of institution changed to The Pennsylvania State College, 81-82; charter amended 83; alumni organize, 84; resigns, 87; mentioned, 95, 96, 101, 496, 497, 499
- Calder, William, 382, 499
- Caldwell, George C., 38, 60, 64, 67, 69, 93, 267, 297
- Calorimeter, 149-150
- Cameron, Simon, 13
- Camp, Walter, 462, 463
- Campbell, C. G., 499
- Campbell, J. M., 102, 105, 499
- "Camp Suspension," 191
- Campus, 16, 85-86, 169, 210, 230-231, 253-255, 490
- Campus Development Plan, 169, 210, 230-231
- Canton Christian College, 439
- Carlisle, 11
- Carlisle Indians, 461
- Carnegie, Andrew, 151, 152, 157, 183, 313, 358, 499
- Carnegie, Mrs. Andrew, 152, 157
- Carnegie Foundation, 475
- Carnegie Hall, 249, 336
- Carnegie Institute of Technology, 462, 467
- Carnegie Library, 249, 358
- Carrigan, Johnny, 86
- Cartmell, N. J., 468
- Centre County, 9, 11, 12, 13, 14, 17, 20, 35, 63, 82, 83
- Centre Furnace, 161-162
- Ceramics, Department of, 317, 318
- Chace, Edith Pitt, 338, 342
- Chadman, G. S., 448
- Chambers, Will Grant, 228, 229, 338, 340, 377, 408
- Chandlee, Grover C., 304
- Chapel Services, 148, 176, 184-185, 423
- Chaplains of the College, 148-149, 423
- Charter of 1854, 4-6
- Charter of 1855, 7-9; amendments to, 83, 148; superseded by Morrill Act, 119, 266; text of, 508-512
- Chautauqua Course of Home Reading in Agriculture, 143, 277, 394
- Chedsey, William R., 317
- Chemistry, Department of, 142, 268, 296-299, 303, 304
- Chemistry and Physics, School of, created 229, 303-304; sketch of background and development of 296-310; growth of, 305, 308; curricula of, 304; progress of, 305-308; laboratories of, 306-307; faculty of, 308; research in, 308-309; buildings of, 309-310; budget of, 310; mentioned, 261, 276, 333, 360, 414
- Chesney, C. C., 447
- Chester County, 69, 97, 99
- China, 76
- Choral Club, 183
- Church, A. C., 39
- Churches of State College, 423-424
- Civil Engineering, Department of, 90, 134, 284-285; camp at Stone Valley, 295

- Civil War, the, 36, 39-40, 52, 61, 84, 90, 114, 362
- Clark, Della, 371
- Clark, Henry J., 66
- Clark, Russell E., 260
- Class Day, inaugurated, 84
- Class debates, 180
- Class memorials, 440
- Class scraps, 187-189, 438
- Classical colleges, 2-3
- "Classical Era" of The Pennsylvania State College, 76-77
- Cloetingh, A. C., 330
- Clough, Nellie E., 388
- Clover Club, 174-175
- Co-Edition*, 421
- Colfelt, Reverend Lawrence M., 148, 185, 499
- Colgate University, 462
- College Choir, 331, 422, 433
- College examiner, 206, 373
- College farms, 14, 15, 16, 68, 69, 74-75, 79, 128, 130, 211, 255-256, 280, 491
- College Health Service, 208, 348, 365-368, 445
- College Library, *See* Library
- College Orchestra, 183, 331, 422
- College roads, 255
- College Senate, 227-228, 231, 350, 374, 488
- College songs, 440
- College Y.M.C.A., 91, 173, 184, 185-186, 382-384, 423. *See also* Penn State Christian Association
- Collier, Hiram, 297, 300
- Colorado, 142
- Commencement exercises (Atherton Era), 193-194
- Conger, Ray M., 349
- Conover, Larry, 463
- Co-op Corner, 429, 431, 434
- Cooper, Anna M., 341, 388
- Cornell University, 461, 462, 466, 469
- Correspondence courses, 143, 272, 394-395, 396, 403-404, 407
- Cosgrove, John C., 264, 499
- Council of Administration, 167, 221
- Council on Research, 241, 334
- County Agricultural Extension Association, 398
- County Agricultural Societies, 3
- Court of Common Pleas of Centre County, 43, 82, 83, 476
- Cowell, A. W., 230, 274
- Craig, Robert Hall, v, 499
- Crane, Walter R., 213, 313, 317, 396, 406
- Cranmer, Gladys R., 360
- Cresson, Elliott, 17, 55
- Cresson Literary Society, 55, 179, 180, 358
- Creswell, D. M., 208, 369
- Cret, Paul, 254
- Crockett, W. D., 329
- Cross, Ellen, 78
- Crow, William E., 200, 499
- Cryder, Donald S., 304
- Cumberland Valley Railroad, 11
- Curricula and courses of study, 25-26, 40-41, 66-67, 73-74, 76, 77, 104-105, 125-128, 143-144, 211, 269-273, 276, 304, 307, 318, 326, 328-329, 339, 340, 347-348, 407
- Curtin, Andrew G., 9, 13, 14, 51, 499
- Customs (freshman), of Atherton Era, 192-193, 433; under President Sparks, 433-434; under President Thomas, 434; under President Hetzel, 434-435
- Cwens, 419
- Cyphers, E. R., 462
- Dad's Day, 435
- Daily Collegian*, 420, 421, 437
- Dairy Husbandry, Department of, 142, 150, 152, 210, 261, 272, 274, 276
- Dancing, 173, 189-190
- Dantzsch, Walter F., 370
- "Dark Ages" of College history, 42-81, 58, 93
- Dartmouth College, 235, 462
- Dauphin County, 13
- Davey, Wheeler P., 306

- Davis, Arthur F., 349
 Davis, Edgar F., 176, 177, 324
 Davis, Kingsley, 331
 Day and Klauder, College architects, 210,
 230, 254
 Dean of Men, 207, 385-388
 Dean of the General Faculty, 207
 Dean of Women, 207, 388-390
 Deanships, established, 144-146
 Debating Club, 180
 Debating teams, 422
 Dedrick, B. W., 287
 Degrees, 339, 348, 354-355
 Delaware County, 87, 99
 Delmonico Club, 174, 175
 Delta Sigma Phi fraternity, 181
 Delta Tau Delta fraternity, 180
Democratic Watchman, 361
 Dengler, R. E., 329
 Dent, Louisa H., 388
 Depression years of the 1930's, 262-263
 "Devil's Den" (dormitory), 153
 Dickinson College, 10, 11, 61, 461, 466
 Diehl, A. N., 182, 224, 264, 500
 Diemer, Hugo, 286, 289, 290
 Diller, Rolland, 452
 Discipline, 86-87, 88, 91, 178
Discobolus, 421
 Dispensary, 367
 District of Columbia, 407
 Doner, S. L., 384
 Dormitories, 153, 203, 226, 250, 251, 428,
 429-430, 457
 Dotterer, R. H., 331
 Downey, John F., 85, 93
 Downing, Samuel R., 135, 158, 500
 Drake University, 386
 Dramatics, Division of, 330
 Drifting and Experiment, period of, 58-94
 Druids, 419
 Drummond, Laura W., 339-340, 342
 Dubois, 258, 413
 Dubois, Tom, 175
 du Mont, F. M., 329
 Duncan, W. G., 406
 Duncan, William C., 35
 Dunlap, W. W., 370
 Dunn, W. T., 462
 Duquesne Club, 175
 Dusham, E. H., 276
 Dutcher, R. M., 275
 Dye, William S., Jr., 330
 Earle, Governor George H., 247, 252, 500
 Earth Sciences, Department of, 318
 Eastern Experimental Farm, 106, 108,
 128
 Eastern Experimental Farm Club, 97-98,
 99
 Easton, William H., 12, 13
 Ebensburg, 162
 Ebert, George W., 206
 Eckman, J. W., 39
 Economics and Sociology, Department
 of, 229, 330-331
 Eddy, M. W., 276
 Edmonds Act, 228
 Education, School of, created, 229, 338;
 sketch of, 336-344; faculty of, 338;
 curriculum in, 339, 340; departments
 of, 339-340; reorganization of, 340;
 enrollment in, 338; recent trends in,
 342-343; extension work of, 343, 408-
 409; facilities of, 343; mentioned, 261,
 275, 328, 332, 402, 414, 488, 491
 Education and Psychology, Department
 of, 211, 229, 327, 331, 338, 339
 Education Extension, Department of,
 343, 408-409
 Eldridge, Louis, 382
 Election of 1882, 124-125
 Election of 1928, 248
 Electrical Engineering, Department of,
 141, 287-288
 Ellen H. Richards Institute, 261, 304,
 309
 Elwyn, A. L., 4, 6, 10, 11, 13, 15, 17, 500
 Emergency Building Fund Campaign,
 224-226, 250, 373, 380
 Emery, Col. A. R., 364
 Engineering, School of, created, 144;
 sketch of, 283-295; enrollment in, 142,

- 289, 292; buildings of, 130, 132, 168, 210, 294-295; growth of, 210-211, 292; departments of, 284-291; faculty of, 292; extension program of, 292-293, 402-405; reaserch in, 293-294, 480; facilities of, 294-295; mentioned, 256, 337, 360, 395, 396, 402, 403, 491
- Engineering Experiment Station, 293, 480
- Engineering Mechanics, Department of, 291
- Engineering Society, 182
- English, Department of, 176, 261, 330, 371
- English Composition, Department of, 261, 330
- English Composition and Journalism, Department of, 373
- English Literature, Department of, 261, 330
- Erie, 404
- Erie County, 10, 12
- Expensshade, A. Howry, 206, 213, 225, 328, 330, 371, 372
- Everett, Edward, 55
- Everett, Harold A., 287
- Ewing, A. L., 90, 276, 311
- Ewing, Rebecca, 78
- Executive Committee, Board of Trustees, 82-83, 86, 105, 113, 114, 144, 146, 148, 168, 169, 205, 230, 244, 245, 246, 257, 264, 284, 311, 358, 378
- Experimental farms, 68, 69, 74-75, 77, 79, 128, 130
- Extension services of the College, sketch of, 391-415; aims of, 391-392; methods of, 392-394, 398, 400, 402-404; correspondence instruction in, 394-395; staff of, 400-401; in the several Schools of the College, 397-411; reorganization of, 411-414; Central Extension Office of, 411; enrollment of, 414; budget of, 414
- Faculty of the College, 23-25, 38, 66-67, 70-71, 86, 93, 114, 135, 136, 149, 157, 159-160, 212-214, 219-220, 231, 234, 243-247, 264-265, 326, 327, 335, 338, 348-349, 488
- Farm Machinery, Department of, 220, 276
- Farm School, Pennsylvania, name of the first College post office, 23
- Farmers' Friend, The*, 87
- Farmers' High School, The, detailed story of, 1-81; origin of, 4; chartered, 5-6, 7-8; Trustees of, 9-11, organization of, 12; site of, 12-15; finances of, 15-21, 16, 17, 18, 35-36; buildings of, 15-21, 22, 23, 37; campus of, 16; accommodations of, 21-23; faculty of, 23-25, 38; tuition charges of, 25, 55; curriculum of, 25-26, 40-41; labor rule of, 25, 41, 42; crudity of, 33-34; student life at, 52-56; enrollment of, 25, 38-40; renamed The Agricultural College of Pennsylvania, 82; mentioned, 310, 377, 483, 493
- Farmers' Week, 168, 199, 270, 396
- Farms. *See* College Farms, Experimental Farms
- Fehr, Carl D., 159, 160, 329
- Fellows, 353, 354
- Fellowships, 157
- Fennell, Thomas, 453, 464
- Fenske, Merrill R., 304
- Ferguson, John A., 273, 281
- Fernald, H. T., 276
- Fernow, B. E., 273
- Fessenden, E. A., 286-287
- First National Bank of State College, 161
- First World War, 272, 292, 305, 315, 318, 380, 383, 403, 456, 469
- Fishburn, Hummel, 331, 340
- Fisher, B. F., 452
- Fisher, Governor John S., 234-235, 237, 247, 249, 250, 500
- Fleming, Neil M., 349, 455
- Fletcher, S. W., 271, 273, 281
- Football, 447-448, 461-463
- Football Letter*, 381
- Forbes, E. B., 279
- Fordham University, 466

- Forestry, Department of, 142, 168, 256, 271, 272, 273, 281, 338
- Forsythe, Dr. W. S., 208, 366, 367
- Fort Sumter, 39
- Foss, Fred E., 159, 285
- Foster, I. L., 160, 328
- Foster, Robert M., Sr., 161
- Foster, Robert M., Jr., 448
- Founding fathers, the, 9-12; views and objectives of, 27-30
- Fowler, Francis, 67
- Frances Atherton Hall, 251, 389, 430
- Franklin County, 11, 12, 13
- Franklin Field, 465, 468
- Franklin Institute, 83, 148
- Fraser, President John, elected, 65; characterized, 65-66, 69-70; administration of, 65-69; his plan of reorganization, 64, 69; resignation of, 69; mentioned, 73, 84, 93, 283, 300, 310, 323-342, 362, 378, 497, 500
- Fraternities, 180-181, 417
- Frear, William, 133, 135, 158, 160, 212, 267, 271, 275
- Frear Laboratories, 271, 275
- Fred Lewis Pattee Collection, 361
- Free Lance*, 128, 180, 186, 358, 420
- Freshman Adviser System, 206-207
- "Freshman Bible," 383
- Freshman class, enrollment of restricted, 242-243
- Freshman Week, 233, 332
- Friars, 419
- Frizzell, John Henry, 330, 423
- Fry, J. M., 271, 277, 401
- Fuel Technology, Department of, 318
- Gardner, Frank D., 273
- Garrett, Nathan, 99
- Garver, M. M., 301
- Gates, T. J., 330
- Ganger, A. W., 318, 320
- General State Authority, The, 248, 251, 252, 253
- Geneva College, 461
- Geology, Department of, 303, 315
- Geology and Zoology, Department of, 90
- Georgetown University, 467, 468
- Georgia Institute of Technology, 463
- German, Department of, 329
- Gettysburg College, 62, 461, 462
- "Ghost Walk," 443
- Gibbons, W. F., 330
- Gill, Benjamin, 145, 149, 160, 325, 328, 329, 423
- Gilmore, John, 271, 273
- Girard College, 61
- Glazier, H. M., 290
- Glee Club, 183, 422
- Godard, E. E., 184
- Golden, Colorado, 142
- Golden, W. N., 344, 451, 453, 455
- Golf, 450, 456, 470, 491
- Gordon, Cyrus, 84, 93, 102, 135, 158, 378, 501
- Gowen, James, 6, 9, 501
- Grabowski, Arthur, 85, 357, 362
- Graduate Assistants, 228, 353
- Graduate Scholars, 228, 353-354
- Graduate School, created, 228, 350-351; sketch of, 350-355; beneficial effects of, 352-353; enrollment in, 242, 355; student ranks in, 353-354; degrees conferred by, 354-355; mentioned, 339, 488
- Graduate Stipend Scholars, 354
- Graham, George T., 432
- Grange, the, 101-102, 225
- Grange Memorial Dormitory, 226, 430
- Grant, R. W., 331, 340
- Grant, President U. S., 115
- Green, George Rex, 338
- Gregg, Andrew, 17, 35
- Gregg, J. W., 274
- Groff, George Weidman ("Daddy Groff"), 439
- Grounds and Buildings, Department of, 205, 230-231
- Gullo, Frank, 422
- Gymnasium, 53

- Haidt, Marie, 349
 Haines, H. L., 463
 Hale, James T., 11, 14, 17, 19, 47, 501
 Hall, George W., 107
 Ham, W. R., 302, 304
 Hamill, James L., 169, 212, 224, 233, 501
 Hamilton, A. Boyd, 71, 79, 92, 501
 Hamilton, John, 67, 77, 85, 93, 130, 135, 161, 267, 359, 362, 501
 Hamilton Fund, 359
 Hammond, H. P., 289
 Harding, Louis A., 286
 Harlow, Richard C., 456, 462, 470
 Harris, C. L., 291
 Harrisburg, 12, 87, 96, 108, 121, 220, 310
 Hartranft, Governor John F., 51, 362, 501
 Harvard University, 9, 10, 372, 463
 Harvest Home, 75, 78, 84
 Harvey, H. T., 84, 378, 501
 Hasek, Carl W., 330, 334
 Hastings, Governor D. H., 363, 502
 Hatch Act, 115, 128, 133, 134, 479, 486
 Haverford College, 469
 Hay, Capt. William, 363
 Hazleton, 258, 413
Headlight, The, 361
 Health Service. *See* College Health Service
 Hechler, F. G., 293
 Heim, Frederick A., 264, 502
 Helfrich, Alan, 468
 "Hello spirit," 439
 Hemlock Hall, 152
 Hermann, B. M., 455, 456, 464, 469
 Herrick, William H., 297
 Heston, J. W., 337
 Hetzel, President Ralph Dorn, elected, 235; administration of, 234-265; characterized, 235, 236; inaugurated, 237; views and policies of 237-238; resident instruction under, 238-240; extension services under, 240; research under, 240-241; building programs of, 247-254; faculty under, 243-246, 264-265; student enrollment under, 242, 264; finances under, 247-248, 250, 251-252, 488; bond issue campaign, 248-249; development of physical plant under, 249-256, 488, 489; administrative changes under, 256-261; land additions under, 255-256; summary of administration of, 264-265, 488-489; mentioned, 281, 282, 333, 424, 426, 429, 434, 488, 497, 502
 Hibshman, E. K., 225, 248, 380
 Hiester, A. O., 7, 10, 16, 17, 47, 93, 502
 Hiester, Gabriel, 135, 158, 502
 Higbee, E. E., 121, 502
 Higgins, Robert A., 462, 464, 465
 Hildebrand, C. C., 451
 Hillsdale College, 76
 Hirshman, E. H., 462
 History, Department of, 261, 331
 History and Political Science, Department of, 229, 261, 330, 331
 History, Mathematics and Philosophy, School of, 204
 History, Political Science and Economics, School of, 145, 303, 325, 330
 Hoffman, Edward, 67
 Hoffman, William S., 374
 Holbrook, Elmer A., 314, 315, 406
 Hollenback, William H., 453, 456, 464
 Holliday, Samuel, 39
 Hollobaugh, C. L., 205
 Holmes, Arthur, 207, 327, 386
 Home Economics, Department of, created 168; sketch of, 341-343; enrollment in, 341; instructors in, 341-342, 343; facilities of, 342; extension in, 400-401; mentioned, 204, 250, 388
 Honess, A. P., 319
 Honor Point System, 231-232
 Honor System, 207, 425
 Honorary Societies, 419
 Hood, George W., 158, 502
 Hopkins, Thomas C., 311, 319
 Horner, John N., 384
 Horst, Miles, 384, 502

- Horticulture, Department of, 142, 210, 273
 Hoskins, George W., 344, 451, 464
 Hostetter, S. K., 260
 Hotel Administration, Curriculum in, 261
 Houck, Leo, 470
 Howe, Lt. Walter, 84, 363
 Hoyt, Governor Henry M., 107, 502
 Hoyt, Jane W., 388
 Humes, Edward C., 11, 12, 16
 "Hundred Days Men," 378
 Hunt, Thomas F., 134, 168, 213, 269, 270, 271, 281
 Huntingdon County, 13
 Huntingdon Reformatory, 383
 Hurrell, Arthur S., 338, 340, 343, 408
 Hutchinson, G. G., 210, 212, 502
 Hy-Los, 422
- Ihlseng, Magnus C., 142, 145, 159, 311, 312, 317
 Independent Men's Association, 387, 418
 Indiana County, 69, 108
 Industrial Art and Design, Department of, 134
 Industrial Education, Department of, 338, 339, 340
 Industrial Engineering, Department of, 211, 289-290
 Industrial Research, Division of, 230
 Infirmary, 225, 250, 366
 Institute of Animal Nutrition, 168, 204, 258, 269, 278-279
 Institute of English Education, 376
 Institute of French Education, 376
 Institute of Local Government, 260, 332-333, 334
 Institute of Music Education, 376
 Intercollegiate Varsity Sports, 459, 461-470
 Interfraternity Council, 417
 Interregnum, between Shortlidge and Atherton, 88-90; between Atherton and Sparks, 166-169; between Sparks and Thomas, 219-220; between Thomas and Hetzel, 233
- Inter-Session, 257-258, 376
 Intramural Council, 417
 Irvin, James, 11, 12, 13, 14
 Isett, J. D., 39
- Jackson, John Price, 141, 158, 168, 212, 286, 288, 289, 453, 502
 Jackson, Josiah, 88, 93, 105, 135, 184, 285
 Jacksonian Epoch, 2
 James, Governor Arthur, 243, 250, 502
 Jefferson College, 11, 63, 65
 Jeffrey, William, 469
 Jessup, William, 8, 10, 13, 502
 John Beaver White Committee, 345, 346
 Johnson, Tellico, 53
 Johnstone, B. K., 291
 Johnstown Flood, 191
 Jones, Lloyd, M., 349
 Jordan Fertility Plots, 268, 278
 Jordan, Francis, 71, 79, 92, 134, 158, 497, 502
 Jordan, Whitman H., 88, 93, 105, 267, 278, 281, 297
 Jordan Hall, 428
 Journalism, Department of, 261, 330, 336
 Judge, J. M., 291
 Junior Oratorical Contest, 177-178
- Kaiser, Frank, 468
 Kansas, 24
 Kappa Sigma fraternity, 181
 Keller, Edward L., 293, 405, 412
 Keller, J. Orvis, 260, 290, 293, 405, 411
 Kern, Frank D., 228, 275, 351
 Keystone Club, 175
 Keystone Oats, 280
 Killinger, Glenn, 463
 Kinsloe, Charles L., 288
 Kitchen, Wilmer J., 384, 423
 Klauder, Charles Z., 254
 Knandel, H. C., 276
 Knight, Margaret A., 207, 388
 Knoche, Frank, 447, 503
 Koch, Charles D., 375, 377
 Kocher, A. L., 291

- Koos, Frank H., 340
 Kunze, E. J., 290
- Labor rule, 6, 28, 73, 74, 77, 78
 Ladies' Cottage, 130, 132, 169, 175, 190, 203
 Lafayette College, 236, 451
 Lamb, Levi, 462
 Lancaster, 75
 Lancaster County, 72, 99, 256
 Land, owned and leased by the College, 14, 15, 16, 68, 69, 74-75, 79, 128, 130, 211, 255-256, 280, 281, 491
 Landscape Architecture, Department of, 229, 274
 Landscape development of College property, 85-86, 169, 210, 230-231, 253-255, 490
 Landscape Gardening, Department of, 274
 Land scrip, 44, 51, 79
 Language and Literature, School of, 145, 204, 325
 Larson, C. E., 274
La Vie, 184, 186, 298, 421, 454
 Leaves of absence, 232
 Lee, General Robert E., 39
 Leetch, George N. P., 260
 Leete, John H., 182, 371
 Legislative Acts, 5-6, 7-8, 17, 35-36, 43-44, 47, 63, 67-68, 77, 79-80, 83, 95, 107, 112, 128, 129, 130, 132, 133, 134, 148, 152-153, 300, 201, 209, 226-227, 250, 251-252, 270, 275, 277, 278, 279, 288, 311, 312, 313, 314, 316, 320, 341, 357, 397, 450, 471, 472. *See also* Appendix B, Appendix C, Appendix D
 Legislative investigations of the College, 87, 96-97, 106-110
 Lehigh University, 451, 452, 462
 Lemont, 162
 Lewis, W. E., 344, 453, 456, 460
 Lewis, Willard P., 360
 Lewisburg, 448
 Leyden, James A., 440
- Liberal Arts, School of the, background of, 139-141, 145, 323-326; creation of, 204, 326; sketch of, 323-336; initial drawbacks of, 323; courses and curricula in, 326, 328-329; faculty of, 326, 327, 335; enrollment in, 327, 335; buildings of, 327, 335-336; departments of, 328-331; growth of, 327, 335; reorganization of, 331-332; extension in, 259, 333-334, 408-410; research in, 334-335.
- Library, the, sketch of, 356-362; beginnings of, 26, 356-357; volumes in, 358, 359, 360; branch libraries of, 358, 360-361; Summer School of, 359, 376; special collections of, 359, 361; buildings of, 358, 361; cultural exhibits of, 361-362; staff of, 360
- Lightner, Joseph, 463
 Lincoln, President Abraham, 39, 44, 55
 Lingnan University, 439
 Lininger, Fred F., 271, 275
 Linville, C. P., 317
 Lion Shrine, 441
 Lion's Paw, 419
 Literary Club, 160
 Literary societies, 54-55, 173, 179-180, 182
 Loan funds, 157
 Lock Haven, 90, 182, 446
 Loomis, W. P., 338
 Louise Carnegie Scholarship Fund, 157
 Louise Homer Club, 419
 Lovejoy, Sara Cutts, 341, 388
 Lovewell, Joseph T., 297, 300
 Lower Division, 259, 331-332, 340
 Lowrie, Charles N., 169, 210
 Lowrie Plan, 210, 254
 Lowry, Milton W., 212, 503
 Lytle, M. S., 39
- McAllister, Hugh N., 5, 9, 10, 11, 13, 15, 16, 20, 27, 29, 31, 34, 36, 63, 64, 65, 92, 503
 McAllister Hall, 203, 341, 428, 429, 430, 435

- McAllister Prize, 193
 McCaskey, Col. W. B., 364, 452
 McCleary, E. H., 462, 464
 McConnell, W. R., 276
 McCormick, E. P., 39
 McCormick, John H., 284, 285, 503
 McCormick, Vance C., 212, 220, 264, 503
 McCreary, I. P., 448
 Macdonald, Anna A., 148, 358
 MacDonald, Pearl, 400
 McDowell, M. S., 271, 277, 398, 401
 McElwain, Harriet, 175, 371, 388
 McFarland, D. F., 315, 317
 McIlveen, H. C., 464
 Mack, Pauline Berry, 304, 309
 Mack, W. B., 273
 McKee, James Y., 67, 82, 88, 89-90, 96, 105, 113, 135, 173, 503
 McLaughlin, Col. C., 364
 McQuigg, Charles E., 317
 Madison Square Garden, 468
 Mairs, Thomas I., 272, 277, 394
 Mandolin Club, 182
 Manning, Warren H., 230, 254
 Manual Labor Academy, 32
 Maplewood Institute, 87
 Marquardt, C. E., 206, 373
 Martin, A. E., v, 229, 330, 331
 Matchum tomatoes, 280
 Mary Beaver White Recreation Hall, 251, 349, 456, 460, 491
 Maryland, 115
 Massachusetts Institute of Technology, 298
 Mathematics, Department of, 329
 Mathematics and Physics, School of, 144, 301
 Mauthe, J. L., 462, 504
 Mavis, F. T., 285, 291
 May Day, 435
 Maynard, D. S., 495
 Mechanic Arts, Department of, 130
 Mechanical Engineering, Department of, 285-287, 294
 Medary, Milton B., 254
 Medical Technology, 261, 276
 Meek, George R., v, 361, 453, 454
 Metallurgy, Department of, 317
 Methodists, 162
 Metzger, Reverend Fraser, 423
 Meyer, J. F., 302
 Middlebury College, 220
 Miles, H. E., 286
 Miles, James, Sr., 7, 10, 11, 12, 15, 16, 93, 504
 Miles, James, Jr., 39, 504
 Miles, James B., 84, 378
 Milesburg, 446, 447
 Milholland, James, v, 264, 504
 Military Band, 422
 Military Inspection, 176
 Military Science and Tactics, Department of, inaugurated, 63-64; sketch of, 362-365; staff of, 362, 363-364; courses in, 364-365; mentioned, 84, 85, 249
 Miller, E. E., 462
 Miller, N. C., 292, 403
 Milling Engineering, Department of, 211
 Mineral Industries, School of, sketched, 310-322; buildings of, 150, 153-154, 250, 252, 313, 314, 321, 491; departments of, 315, 317-319; extension in, 319, 405-407; research in, 319-321; experiment station of, 320, 480; faculty of, 321; student enrollment of, 321; rank of, 322; museum of, 321, 322, 491; art gallery of, 321-322, 491; camp of, in Big Stone Valley, 256, 322. *See also* School of Mines, School of Mines and Mining, School Mines and Metallurgy; mentioned, 256, 360, 402, 406, 491
 Mines, School of, 142, 145, 211, 289, 312, 337, 395, 396
 Mines and Metallurgy, School of, 211, 313-314, 405
 Mines and Mining, School of, 168
 Mining, Department of, 168, 303
 Mining Engineering, Department of, 134, 142, 312
 Mining Engineering and Geology, Department of, 317

- Minnesota, 223
 Mitchell, David, R., 317
 Mitchell, H. Walton, v, 158, 210, 212, 219, 220, 224, 233, 303, 378, 497, 504
 Mock, J. C., 447
 Mont Alto Forestry School, 250, 255, 256, 257
 Montgomery County, 99
 Moore, B. V., 339
 Moore, Elwood S., 213, 314, 317, 319
 Moral Rearmament Movement, 383
 Morrill, Justin S., 43, 44, 45
 Morrill Act, origin, provisions, and significance of, 43-46; acceptance of by Pennsylvania, 46-47; controversy over distribution of funds of, 47-51; interpretation of, 45-46, 48-50; text of, 512-516; mentioned, 1, 3, 55, 56, 62, 68, 69, 83, 97, 100, 107, 108, 117, 122, 125, 129, 134, 139, 155, 165, 325, 362, 471, 472, 473, 484, 485, 486
 Morrow, J., 13
 Morse, Adrian O., 259
 Mortar Board, 419
 Moschzisker, Robert Von, 222
 Mott, John R., 383
 Move-up Day, 435, 437
 Moyer, J. A., 286, 292, 403
 Munroe, H. K., 160
 Mural (Old Main), 491
 Music, Department of, 249, 327, 331, 336, 491
 Music Education, Department of, 339, 340
 Musical Club, 183
 Musical organizations, 182-183
 Musser, C. H., 191
 Mylin, Amos H., 107, 135, 158, 504
- 303, 304. *See also* School of Chemistry and Physics
 Nature Education, Department of, 338, 339
 Nelson Amendment, 270
 Neubert, John, 182
 New Beaver Field, 349, 453, 456, 466
 New Jersey, 115
 New Old Main, 250, 443
 Newmeyer, John C., 107
 Newton, S. B., 344, 451, 464
 New York City, 169
 New York State, 65
 New York University, 467
 Nita-Nee club, 418
 Nittany Lion emblem, 440-441
 Nittany Lion Inn, 250, 429, 491
 Nittany Lion Shrine, 491
 Nittany wheat ("Pa. 44"), 280
 Noll, Charles F., 273
 Northrup, H. B., 319, 406
- Ohio State Journal*, 197
 Ohio State University, 462
 "Old Garden," 443
 Old Main, contracted for, 18, 20, 36; west wing occupied, 21; described, 23; completion of building, 36; description of, 36-37; improvements on, 85, 131; electric lights installed, 301; rich in traditions, 442-443; displaced by New Old Main, 250, 442-443; mentioned, 128, 173, 174, 188, 194, 211, 268, 298, 301, 341, 370, 382, 429, 432, 434, 436, 440, 441, 442, 443, 446, 490
Old Main Bell, 421
 "Old Willow," 443
 Olds, F. L., 130
 Olmstead, Frank I., 384
 Oregon State College, 235
 Orvis, Ellis L., 212, 382, 504
 Orvis, John H., 93, 134, 158, 504
 Osmond, I. Thornton, 93, 135, 144, 161, 297, 300, 302
 Owens, F. W., 329
 Oxford Group, 383
- National Defense Act, 364
 National Independent Student Organization, 418
 Natural History Club, 181
 Natural Science, School of, created, 144; reorganized and renamed, 229; mentioned, 220, 221, 296, 297, 298, 302,

- Panhellenic Council, 418
 "Parker's Boat," 442
 Parmi Nous, 419
 Pattee, Fred L., 159, 160, 182, 212, 328, 330, 335
 Patten, G. W., 13
 Patterson, H. J., 133
 Patterson, William C., 77, 133, 159, 161, 205, 278
 Patterson Oats, 280
 Pattison, Governor, Robert E., 121, 123, 124, 125, 132
 Paul, Charles E., 291
 Peet, D. K., 205
Penn State Alumni News, 380, 381
 Penn State Ballhead cabbage, 280
 Penn State Christian Association, sketch of, 382-385; activities of, 383, 384, 385; membership of, 385. *See also* Y.M.C.A., Y.W.C.A.
 Penn State Club, 387, 418
 Penn State College Trophy, 459
Penn State Collegian, 421
Penn State Engineer, 421
Penn State Farmer, 421
Penn State Froth, 421
 Penn State Glee Club, 422
 Penn State Players, 420, 433
Penn State in the World War, 380
Penn Stater, 381
 Pennsylvania, 39, 223, 225, 313
 Pennsylvania College (Gettysburg), 62
 Pennsylvania Day, 435
 Pennsylvania Department of Forest and Waters, 256
 Pennsylvania Intercollegiate Athletic Association, 450
 Pennsylvania Museum of Industrial Art, 134
 Pennsylvania Railroad Company, 403
 Pennsylvania Research Corporation, 241-242
Pennsylvania School Journal, 72, 477
 Pennsylvania State Agricultural Society, 4, 6, 7, 8, 9, 10, 12, 15, 16, 17, 100-101, 148
 Pennsylvania State College, The, founding of, 1-30; progress under difficulties, 31-57; era of drifting and experiment, 58-93; falls on evil days, 94-110; begins a forward movement, 111-137; the forward movement gathers momentum, 138-170; student life and customs, 52-56, 90-92, 171-194, 416-444; popularization of, 195-218; growth tempered by obstacles, 219-233; at flood tide, 234-265; technical Schools of, 266-295, 296-322; non-technical Schools of, 323-355; independent departments and administrative units of, 356-390; extension services of, 391-415; physical training and athletics at, 445-470; relations of to the Commonwealth, 471-482; summary view of, 483-493; faculty of, 243-247, 264-265; student enrollment of, 242, 264, 488; physical plant of, 488-492; budget of, 488; distinctive features of, 474-475; traditions of, 438-443; rank of, 492; outlook for, 492-493. *See also* Farmers' High School, Agricultural College of Pennsylvania
 Pennypacker, Governor Samuel W., 152, 505
 Penrose, Boies, 153, 200, 366
 Perry County, 12
 "Pest House," 366
 Peters, C. C., 339, 343
 Petroleum and Gas Engineering, Department of, 317, 318
 Phi Beta Kappa society, 419
 Phi Delta Theta fraternity, 181
 Phi Gamma Delta fraternity, 181
 Phi Kappa Phi society, 115, 419
 Phi Kappa Sigma fraternity, 180, 181
 Philadelphia, 17, 62, 230, 254, 441
 Philharmonic Trio, 183
 Philipsburg, 446, 450
 Phillips, Clara Calhoun, 233, 505
 Philosophy, Department of, 230, 359
 Phi Sigma Kappa fraternity, 181
 Phin, John, 66, 69, 267

- Physical Education, Department of, 257, 344, 346, 451, 453
- Physical Education and Athletics, School of, origin of 257, 344-347; sketch of, 344-350; program of, 347-348; faculty of, 348, 349; student enrollment in, 349; facilities of, 349-350; mentioned, 445, 457, 458, 464, 470
- Physical training, new trends in, 457-459, 461
- Physics, Department of, 141, 144, 287, 288, 300-303
- Physics and Electrotechnics, Department of, 287, 288, 301
- Pierce, F. W., 329
- Pilcher, L. F., 291
- Pinchot, Governor Gifford, 227, 247, 250, 505
- Piolett, Victor, 102, 505
- Pirson, S. J., 318
- Pittsburgh, 62, 96
- Placement Bureau, 260-261
- Political Science, Department of, 261, 331
- Pollock, Governor James, 7, 9, 11, 55, 505
- Polyolith, 312, 491
- Polytechnic College of Philadelphia, 47, 62
- Pond, G. G., 135, 142, 144, 158, 160, 212, 217, 297, 299, 303, 309
- Pond Laboratories, 210, 250, 450
- Pope, Alexander, 334
- Portfolio*, 421, 437
- Post-Session, 257-258, 376
- Potato Growers Association, 225
- Pottsville, 258, 413
- Poultry Husbandry, Department of, 276
- Power Plant, 211, 250
- Preparatory Department, 74, 102, 106, 120, 146, 147, 162, 176, 181, 203-204, 337, 451
- Presbyterians, 162
- Pre-Veterinary Curriculum, 276
- Prevost, Jules, 463
- Princeton University, 9, 441, 466, 467
- Professional Forestry Course, 229
- Professors' houses, 132
- Psycho-Educational Clinic, 339
- Public Information, Department of, 208, 368-370
- Public Speaking, 177
- Publicity, Department of, 199, 208, 368
- Public Works Administration, 248, 252, 253
- Pugh, David B., 259, 329, 333, 409
- Pugh, President Evan, administration of, 31-57; characterized, 32-34, 53, 59; problems of, 53; organizes curriculum, 40-41; fights to retain funds under the Morrill Act, 48-51; views of, 29-30, 47-49; multiplicity of duties of, 51-52; marriage of, 52; death of, 52; administration of evaluated, 56-57; mentioned 10, 20, 23, 24, 27, 59, 60, 69, 104, 267, 275, 283, 296, 297, 300, 310, 319, 323, 484, 497, 505
- Pugh, Mrs. Rebecca Valentine, 52
- Purnell Act, 278, 279
- Quigley, James E., 212, 505
- Rapeer, L. W., 337
- Rasmussen, Frederick, 274, 505
- Ray, Charlotte E., 207, 388, 389
- Ray, P. O., 328, 330
- Reading, 404
- Reber, Louis E., 144, 159, 160, 168, 285, 288, 453
- Recreation Building, 226, 456, 469, 491
- Red Cloud Indian Agency, 115
- Redifer, Anna E., 134, 388
- Reed, John C., 182
- Reed, Reverend Robert, 423
- Reeves, Charles F., 93, 135, 159, 357, 358
- Regional Research Laboratory, 249
- Registrar, Office of the, created, 167; reorganized, 206; sketch of, 371-374; admission procedure of, 371-372; records of, 372; staff of, 373; prestige of, 374
- Research, 240-242, 269, 278, 280, 293-294, 308-309, 310, 319-321, 334-335, 479-481

- Reserve Officers' Training Corps, 215, 364
- Rhone, Leonard, 101, 505
- Richards, John R., 409
- Ries, E. D., 306
- Ritenour, Dr. Joseph, 367
- Ritner, Governor Joseph, 72
- Robb, Harry, 463
- Roberts, Algernon S., 7, 10, 505
- Roberts, Charles W., 130, 135, 158, 505
- Roberts, William B., 107, 505
- Robinson, C. C., 331
- Robinson, C. W., 321
- Rockefeller Foundation, The, 475
- Rodgers, J. F., 225
- Rothamstead, 33
- Rothrock, J. T., 74, 93
- R.O.T.C., 364, 422
- Royal Philosophical Society of Great Britain, 33
- Runkle, Erwin W., 148, 159, 212, 230, 328, 331, 358, 359, 496
- Rural Education, Department of, 338
- Rural Life, Department of, 275
- Rutgers, University, 113, 115, 232
- Sabbatical leave, 232
- Sackett, R. L., 213, 219, 289, 303, 403
- St. Bonaventura College, 462
- St. James Churchyard (Lancaster), 75
- St. John's College, 115
- Sandwich Shop, 429
- Sanitary Engineering, Curriculum in, 285
- Sauertown, 452
- Sayre, 413
- Scabard and Blade, honorary society, 419
- Scarab, honorary society, 419
- Schaeffer, Nathan C., 156, 477, 505
- Scholarships, 89-90, 157
- Schools of the College, established, 144-146.
- Schott, Carl P., 347, 349, 470
- Schwab, Charles M., 150, 158, 505
- Schwab, Mrs. Charles M., 150
- Schwab Auditorium, 150-151, 194
- Scotland, 65
- Scott, Xenophon, 456
- Scranton, 404
- Seamans, Harry W., 384
- Sears, Thomas W., 254
- Second Morrill Act, 115, 134, 270
- Second World War, 321, 441
- Sewage Plant, 211
- Sharpless, Alfred, 97
- Shaw, J. B., 315, 318, 319
- Shee, Charles J., 447
- Shelley, Philip A., 329
- Shields, J. Franklin, 158, 212, 220, 263-264, 303, 378, 450, 497, 506
- Shields, M. L., 468
- Shigley, James F., 276
- Shortlidge, President Joseph, elected, 87; characterized, 87, 88; administration of, 87-88; resignation of, 88; 497, 506
- Shunk, Governor Francis R., 11
- Sigma Alpha Epsilon fraternity, 181
- Sigma Chi fraternity, 181
- Sigma Phi fraternity, 181
- Sigma Xi honorary society, 417
- Sime, Margaret, 460
- Simmons, Lucretia V. T., 225, 329, 388
- Skull and Bones society, 419
- Smith, C. Alfred, 85, 86, 93, 105, 297, 300, 506
- Smith, E. R., 377
- Smith, James T., 384
- Smith, Raymond H., 205, 219, 225, 233, 345, 379, 380, 454
- Smith-Hughes Act, 275, 406
- Smith-Hughes funds, 319, 406, 407
- Smith-Lever Act, 277, 397-398, 399
- Soccer, 469
- Sociology, Division of, 331
- Soliders' Orphan Schools, 72
- Sororities, 233, 417
- Sparks, President Edwin Erle, principal of Preparatory Department, 181; elected President of the College, 196-197; administration of, 195-218; characterized, 197-198, 201, 218; views and policies of, 198-200; develops ex-

- tension work, 200; student enrollment under, 201-203; administrative changes under, 203-206; institutes summer session, 204; establishes student government, 206-207; building program of, 208-211; faculty under, 212-214; retires, 217; administration of evaluated, 218, 487-488; mentioned, 219, 290, 326, 336, 345, 359, 366, 386, 395, 487, 488, 497, 506
- Sparks Building (Liberal Arts), 336
- Speech, Department of, 261, 330
- Speer, Robert E., 383
- Speidel, Charles M., 469
- Sproul, Governor William C., 222, 506
- Spruce Creek, 56
- Starkweather, S. W., 102, 135, 506
- State Art Commission, 231, 476
- State College, borough of, 33, 56, 108, 160-162, 163, 174, 443-444
- State College Hotel, 161, 175
- State College Times*, 162
- State Collegian*, 186, 421
- State Department of Commerce, 320
- State Department of Highways, 320
- State Department of Internal Affairs, 320
- State Department of Labor and Industry, 319, 320, 406
- State Department of Mines, 319, 406
- State Department of Public Instruction, 319, 339, 406, 408, 477
- State Department of Welfare, 320
- State Employees' Retirement Act, 245
- State Employees' Retirement Association, 245
- State Federation of Women's Clubs, 341
- State Mineralogical and Geological Collection, 310
- Stecker, H. F., 212, 328
- Steidle, Edward, 315
- Stevens, Thaddeus, 55
- Stoecker, H. H., 183
- Stoddart, Charles W., 220, 229, 303, 327, 329, 333
- Stone Valley, 256
- Strohm, John, 5, 6, 10, 13, 17, 506
- Strohm, Rufus T., 182
- Struble, Jacob, 286
- Struble's Station, 162
- Struck, F. T., 340
- Stuart, A. P., 297
- Stuart, Governor Edwin S., 153, 506
- Student Aid, 353-354
- Student barber shop, 175
- Student customs. *See* Customs
- Student debating teams, 422
- Student eating clubs (Atherton Era), 174
- Student eating places (later period), 428-429
- Student enrollment, 67, 78, 89, 135-136, 149, 165, 201-202, 231, 235, 242, 338, 492
- Student expenses, 55, 61, 66, 81, 174-175, 428
- Student government, 206-207, 387-388, 389-390, 424-427
- Student Handbook*, 186, 382, 385, 421, 434, 435
- Student life, 52-56, 90-92, 171-194, 416-444
- Student loafing places, 431-432
- Student organizations, 417-419, 422
- Student politics, 427-428
- Student pranks, 174, 185, 188-189, 190-191
- Student publications, 186, 420-421
- Student self-help, 430-431
- Student social activities, 432-433
- Student traditions, 439-443
- Students' Army Training Corps, 215, 216
- Students in First World War, 215-217
- Students' Press Club, 181
- Sub-freshman class, 147
- Sullivan, E. N., 225, 380
- Summer School, 147, 223
- Summer Sessions, sketch of, 375-377; Institutes of, 376; graduate work of, 377; trends of, 377; directors of, 377; mentioned, 231, 233, 257, 326, 337, 338, 407, 408
- Supreme Court of Pennsylvania, 226
- Surface, H. A., 276
- Swartz, F. C., 319

- Taggart, S. A., 382
 Tanger, Jacob, 331
 Tate, George W., 36
 Tau Beta Pi society, 419
 Taylor, N. W., 318
 Teacher Training Extension, Department of, 223, 229, 333, 343, 408
 Technical Schools of the College, 266-295, 296-322
 Tener, Governor John K., 201, 209, 366, 506
 Tennis, 470
 Thespians, 182, 183, 420, 433
 Theta Nu Epsilon fraternity, 181
 Thiel, Glenn N., 349
 Thomas, E. P., 379
 Thomas, J. M., 74
 Thomas, President John Martin, elected, 220; administration of, 220-233; inaugurated, 222; views and policies of, 222-223; promotes Emergency Building Fund Campaign, 224-226; has hard financial sledding, 226-227; administrative changes under, 227-230; student enrollment under, 231; faculty under, 232; resignation of, 232; mentioned, 248, 303, 488, 496, 506
 Thomas, P. E., 454
 Thompson, John I., 205, 378
 Thompson, Moses, 11, 12, 14, 93
 Thompson, W. O., 364
 Thucydides, 111
 Tomhave, W. H., 273
 Torrey, Elizabeth, 358
 Towanda, 413
 Trabue, M. R., 340, 377
 Track, 450, 467-468
 Track House, 150, 187, 453
 Transfer students, 243
 Trego, Charles B., 15
 Troutman, C. E., 39
 Troutman, L. C., 39
 Trustees of the College, first Board of, 7-8, 9-11; first annual election of, 17; second annual election of, 18; change in number and personnel of, 83, 148; alumni Trustees, 83, 84, 148, 263*n*, 378; in the period of the "dark ages," 92-93; investigate conditions at the College, 102-103; in the Atherton Era, 134-135, 157; maintain unbroken continuity of College policy, 169; lift ban on fraternities, 181; approve building program, 209-210; personnel, policy, and services of, 201, 212, 263-264; how constituted in recent years, 263*n*; standing committees of, 263; mentioned 217, 219, 221, 227, 228, 230, 232, 271, 284, 288, 303, 304, 306, 311, 315, 325, 333, 338, 346, 356, 258, 366, 368, 378, 388, 395, 410, 411, 418, 457. Listed, Appendix A, 498-507
 Tudor, J. H., 328
 Tuition, early cost of, 55, 61, 66, 81
 Turner and Natcher, contractors for Old Main, 17
 Turtle, A. H., 362
 Tuttle, Franklin E., 298
 Tyson, Chester J., 212, 224, 264, 507
 Undergraduate Centers, 258-259, 334, 413
 Union Baseball Club, 446
 Union College, 61
 Union Theological Seminary, 24
 Uniontown, 258, 413
 United States Agricultural Society, 3
 United States Department of Agriculture, 280
 United States Military Academy, 115, 467
 United States Naval Academy, 462, 463, 467
 University Club, 161, 211
 University Inn, 161, 175, 191
 University of Aberdeen, 65
 University of California, 463, 467
 University of Chicago, 195, 197
 University of Detroit, 467
 University of Goettingen, 32, 297
 University of Heidelberg, 32

- University of Illinois, 115, 134
University of Kansas, 70
University of Leipzig, 32
University of Lewisburg, 62, 90
University of Maine, 235
University of Michigan, 208
University of New Hampshire, 235
University of Pennsylvania, 9, 235, 461,
462, 465, 466
University of Pittsburgh, 235, 273, 462
University of Virginia, 466, 467
University of Wisconsin, 168, 235
Upper Division, 331-332
Ursinus College, 462
- Valentine, Rebecca, 52
Van Norman, H. E., 274
Varsity Hall, 224, 226, 453, 457
Varsity Male Quartet, 422
Venable, Col. R. E., 364
Very, Dexter, 462
Vesta Club, 174
Villanova College, 462
Virginia Military Institute, 466, 467
Vorhis, Larry, 462
Vorse, Albert O., 368
Vought, Sabra W., 230, 359
- Wadsworth, Marshman E., 142, 168, 213,
313, 317
Wagner, C. C., 329
Walker, Elton D., 285, 289
Walker, R. C., 7, 10, 16, 17, 507
Walker, William H., 159, 298, 303, 507
Ward, John M., 447
Waring, William G., 11, 14, 16, 23, 38,
267, 273, 443
Warneke, Heinz, 441
Warnock, A. R., 207, 386, 496
Warriner, J. B., 346, 507
Warriner Committee, 346
Washington and Lee University, 466, 467
Washington Literary Society, 55, 179,
180, 358, 382
Water Tower, 249, 366, 441, 491
- Watts, Frederick, 4, 5, 9, 10, 11, 13, 14,
15, 16, 19, 20, 23, 27, 29, 34, 36, 47, 63,
64, 65, 66, 69, 92, 497, 507
Watts, R. L., 213, 271, 273, 281
Waugh, Louise, 341
Way, Charlie, 462
Weaver, F. P., 275
Weaver, P. C., 338, 340
Webber, R. I., 206, 291
Weber, Samuel E., 204, 213, 326, 327,
337, 377
Welsh, J. P., 166, 371
Welty, Col. M. D., 364
Wendt, Gerald L., 229, 304, 305, 306
Werner, C. D., 468
West Chester *Local News*, 97
West Grove, 97, 108
Western Experimental Farm, 106, 108,
278
Western State Penitentiary, 383
Western University of Pennsylvania, 62,
70
Whig Party, 11
White, H. V., 158, 205, 210, 212, 507
White, J. B., 225
White, James G., 157, 158, 212, 224, 264,
448, 507
White, John W., 157, 158
White, W. R., 277, 394
Whitestown, 32
Whitman, J. S., 23, 24, 37, 38, 60, 64, 274,
276
Whitmore, Frank C., 304, 306, 308
Whitmore, J. B., 290
Whitney, L. C., 456
Wickersham, J. B., 102
Wilber, Francis E., 383
Wilkes-Barre, 404
Willard, Joseph M., 159, 212, 328, 329
Williams, C. O., 340
Williamsport, 292, 396, 446, 447
Wilson, David, 24, 38, 40
Wilson, Harry, 463
Wisconsin, 223
Woman's Building, 210, 341, 429

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