

CHAPTER FOUR

THE COLLEGE ON THE OPEN PRAIRIE

A New Departure in Higher Education



EARLY FARM MANAGEMENT

In asserting its collegiate status against unfriendly or rival interests in the preliminary years, the institution was handicapped by the lack of an instructional plant. In the early years the "State Agricultural College and Farm" was all farm, and that in itself was a major undertaking. In the years before the College opened, the prairie was transformed into a going farmstead which in spite of captious or jealous neighbors was undoubtedly better equipped and managed than the average of that time. With the limitations of resources and the primitive conditions, the degree of progress made indicated the reliability and resourcefulness of the various superintendents. The improvements of the first years were supervised by the executive committee, of which M. W. Robinson was chairman. For 1860 a trustee, Richard Gaines, was appointed farm agent. By that time the completion of a house and barns, the acquisition of essential stock and equipment, and the breaking and fencing of an appreciable area of land made possible a more systematic cultivation.

W. H. Fitzpatrick of New Philadelphia became the first occupant of the Farm House and was in charge of the farming work from 1861 to 1865. For the first two years he rented the farm for \$200 payable in part in labor, fencing, and breaking. Peter Melendy, of Cedar Falls, secretary of the Board, was persuaded to act as non-resident superintendent in 1865, after which his fellow townsman, A. J. Graves, took over the work

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for a year. The service of the Hon. Hugh M. Thomson as farm superintendent, beginning in January, 1867, was to extend into the college period and afford him, along with the perplexities of adjusting his farming operations to the requirements of student labor, the demands of the steward, and the varied theories of the professors, the dignity of inclusion with the faculty. But without instructional complications the early superintendents were sufficiently distracted in their farm operations by the building activities.

BUILDING PLANS AND TRIALS

The first report in 1859 presented a well-considered plan for a college building, but it was long in realization. It was reported that the chairman of the executive committee, M. W. Robinson, had given much time and thought to the planning of this structure. He had corresponded with the Michigan and New York agricultural colleges regarding their building experiences and visited the Farmers' College and the Female College at Cincinnati (which Horace Mann had recommended as the best-arranged college building he had seen), and the Farmers' High School of Pennsylvania. The Board had employed as expert adviser Mr. Milens Burt of Muscatine, "architect and builder, a prudent, judicious, and excellent mechanic, and a man of much care and prudence in all things." Simplicity and economy with the maximum of utility were emphasized by the committee with an obvious fling at the ornateness of the University's inherited state house: "We have studied every way to economize the funds of the State, having all the time in view a good school rather than a display of architectural beauty—no costly dome or curious winding stairs—but a solid stone foundation, a plain brick superstructure of four stories, with pilasters, dental brick cornice, projecting roof with brackets, with portico over the doors at each end: all of good respectable appearance,

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about good enough for the farmers of our state, *and good enough for any body else.*"

But there was still much that they were uncertain about, and no doubt the conscientious committee leaned heavily upon the suggestions of their "man of much care and prudence." They were undecided for a time whether to construct a single building or three separate buildings "far enough apart to be safe from each other"—an ominous reflection on fire hazards. After much deliberation they had tentatively decided on four rather than three stories as much more convenient. The estimated cost of a building which would house 100 students, the president and family, and two or three professors, provide classrooms and library, as well as commissary, dining hall, and kitchen in the basement to accommodate 120 boarders, was \$30,000. One can readily agree that it had "required much time and effort and skill to arrange all this in one convenient building." It was suggested that if the legislature felt disposed to proceed with the large policy this session, which was not anticipated, \$40,000 would be sufficient to construct and equip the building "without an appropriation of another cent to complete it throughout"—an over-optimistic estimate, as later experience was to show.

Funds on hand from the balance of the original appropriation and subscriptions in money, materials, and labor were felt to be adequate for the necessary farm equipment—house, barns, and shops estimated to cost \$8,500. Two years later the completed exhibit was a basement barn forty-two by sixty and a substantial brick farm house, the main portions with inside work unfinished. The cost of these improvements had been met wholly from subscriptions. At the legislative session of this year, 1862, Governor Kirkwood could offer nothing but his blessing: "I would gladly recommend liberal appropriations for the erection of the necessary college and other buildings, if the condition of our finances would allow, but

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I cannot now do so. The farm and buildings are in such condition that a failure to make appropriations will not necessarily work any injury to them. The only unfavorable result will be delay and to that we must submit until our national difficulties are removed. I heartily approve of the policy adopted by the Trustees of reserving the lands donated by the State and by individuals, and the bonds of Story County to endow the institution, trusting to the liberality of the State and of individuals in more prosperous times for the erection of the necessary buildings."

With the failure of the plan of Kirkwood and others to trade the use of the university plant for a considerable part of the national grant it was necessary to provide a "college" as well as a farm at the Story County site. Accordingly, after assigning the lands to the College the legislature appropriated \$20,000 as an installment on a building the total cost of which could not exceed \$50,000. The structure was to be enclosed by October 1, 1865.

The legislature proposed, but building troubles—natural and human—imposed repeated delays. In April, 1864, the building committee—J. A. Bronson, Suel Foster, and Peter Melendy—offered a prize of \$350 for a suitable building plan, and in June the award was made to a Des Moines architect who was engaged to supervise the construction. Then the troubles began. The first bricks made on the farm were well burned but contained pebbles which caused them to split and made them unsuitable for facing; the next lot were of good material but not as well burned. A new kiln had to be made. The architect proved negligent and inefficient. He was discharged in September, and another was secured in December to report on the work and supervise future activities.

The new architect's roughly phrased report was a combination of technical recommendation and sarcastic comment on his predecessor. The original plans, he stated, provided for a building that would be deficient in appearance, utility, and

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construction. The lecture room as designed provided "no place to put the speaker's stand, so that what he was talking about could be heard understandingly half way across the room, and it could not be seated so as to accommodate one-fourth of the number of scholars, with a full attendance." The laboratory designs were revised by substituting two large for four small ones. With true foresight the new architect made more ample provision for chemistry, which as "one of the most important subjects to be taught in the institution . . . should have as large a room as could be made for it. . . ." With equal vision the library room was enlarged. The towers planned by his predecessor were architecturally unsound and wholly lacking in utility or beauty. All other features of the planning from chimney-pot to groundsel met his professional condemnation. Methods of construction called forth even more disgusted denunciation. The foundation upon examination was found to be unmathematically proportioned and of poor material, and hence its replacement was the first step in the revised construction.

As a result of such delays the best accounting that could be made to the legislature in 1866 of its appropriation was a sound foundation and the bulk materials for the structure. Governor Stone in his message to that session warned of the necessity of immediate provision for completing the building and opening the College, for the loss of "this magnificent donation by our own neglect or parsimony, after having accepted it, would not only reflect lasting disgrace upon the State, but would be an irretrievable injury to the advancement of our agricultural interests." The estimates secured had convinced the Board and the Governor himself that the building could be completed within the limits set by the act of 1864, and the work was entered upon in good faith, "but the estimates of expenses being based upon prices prevailing at the time of our calculations were, to a great extent frustrated in consequence of the unexpected and exorbitant advance in the prices of

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materials and mechanical labor." In any case the building "must be completed at all hazards" and he trusted to the legislature to provide the funds to fulfill the conditions of the grant on time. As a consolation for the added cost the Governor gave the assurance that "next to the Insane Asylum at Mt. Pleasant" the College would be housed in "the finest edifice in the State," and it would be "erected for a much smaller sum than the other States have expended upon their colleges under the same Grant." The joint legislative visiting committee subsequently estimated that \$91,000 would be required to complete the building and meet all outstanding obligations, and that sum was appropriated.

The building troubles, however, were by no means ended. The new architect with all his critical assurance proved to have his own limitations. The new wall had to be repaired at considerable expense before construction of the building got under way. When the contract was completed in the fall of 1868 the building proved far from usable, for in the very restrained statement of the first report of President Welch, "with a singular lack of foresight the architect had completed the structure without making any provision for lighting, heating, supplying with water, or for adequate drainage." Consequently these necessary facilities had to be added with great inconvenience and at increased cost. The Ruttan system of hot air heating, recommended as simpler and more economical than steam, proved unsatisfactory even after overhauls, and in less than a decade it was abandoned for steam. Lighting was provided inadequately by gas generated in a small plant. Water was successfully supplied from a well by a windmill. The sewerage system remained a continuing problem until fully modernized.

THE INITIAL COLLEGE PLANT

In 1870 the original building was completed. The addition of wings and various alterations and repairs brought the total

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expenditure to the time of its destruction at the beginning of the new century to about \$230,000—an astounding multiplication of the legislative estimate of 1864. In the history of the Iowa State College “Old Main” has a unique place. In the early years it provided most of the instructional and housing needs, and throughout the first three decades “the College” was identified largely with this all-purpose structure. The building was not only relatively commodious and adaptable; in appearance it conformed to prevailing standards of collegiate architecture. As late as 1896 a writer in the *Midland Monthly* termed the much used and abused old hall “one of the few examples of the Mansard period of modern architecture which pleases the eye at any point from which it may be viewed.”

The location of the College necessitated housing of a part of the faculty, at least, as well as the students. An appropriation was made in 1868 for three houses for professors. One was built with an experimental concrete block which was more nearly a grout in which the mixture was too parsimoniously thin; the walls collapsed. The first manual labor assignment of the preparatory group in the fall of 1868 was to haul away the wreck for building a walk, for which the materials proved well suited. The other two professorial dwellings were well constructed of brick. One became in succession the president's residence, the first domestic science hall, and the music hall until its destruction by fire in 1912. The other, starting as the residence of Vice-President Jones became eventually the present Hall of Music.

ORGANIZING COMMITTEE'S TRAVELS

With all these trials in preparing the physical plant for the reception of the first staff and students, there was an equally arduous undertaking in organizing the College itself and in selecting a president and faculty to initiate the program. This was even more of a pioneering adventure than that with

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bricks, concrete, and mechanical appliances. Old-time colleges with small staff and narrowly prescribed course existed on every hand, but the "new type" industrial college was in a highly experimental stage. There were not many going experiments, and their successes and failures were matters of dispute.

Fortunately, the Board recognized the need for especial care and deliberateness in providing for initial organization and staff. At their January meeting in 1867 a committee of three was elected by ballot "to examine into, and, if necessary, visit Agricultural Colleges in other states, in order to procure all information necessary for the successful organization of our College." The selection of Governor Stone, Lieutenant Governor Gue, and Peter Melendy, then president of the State Agricultural Society, indicated the importance attached to this mission. The Governor was unable to act, and Gue and Melendy carried on the investigation and submitted their report and recommendations. These two enthusiasts for industrial education entered upon their task in the most thorough manner. Finding correspondence unsatisfactory, they conducted an extended and systematic visitation of typical colleges, scientific foundations, and governmental bureaus with the aim of determining the following essential matters: plan and relative effectiveness of the organization; causes of success or failure of the several institutions; "the course of instruction—how conducted and illustrated"; a determination of number and professional grade of faculty needed for their own college and "finding and securing competent men for President and Faculty"; a thorough investigation of the manual labor system, noting its successes and failures; determining the best equipment for the College.

In seeking answer and solution to this variety of questions and special problems they extended their observations and searchings to twelve states and the district of Columbia, visited sixteen colleges and schools, as well as the Smithsonian

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Institution, the federal departments of agriculture and education, and the editorial offices of the leading agricultural journals. The list of leaders with whom they consulted reads like a scientific and educational directory of the period. Certainly all shades of opinion on applied science and research were reached in these interviews. One conference of great historic significance was not mentioned by Gue in his editorial letters to his paper, the *Iowa North West*, or in the committee's official report. In November, 1867, members of the faculty of the Sheffield Scientific School entertained Senator Morrill and secured probably the frankest expression of his aims for and interpretation of the land-grant act of which there is any record. In his memoranda of the conference Professor William H. Brewer noted that Gue was one of the participants. Undoubtedly Morrill's views were given confidentially and hence no mention was made either of the conference or of the Senator's views.

THE COMMITTEE'S REPORT

Naturally, chief attention was given to the institutions that in organization and program were most similar to that planned for Iowa. Of these the Michigan exhibit was found to be the agricultural college *par excellence*—in aim, organization, course of study, and apparent results. A large portion of the report was devoted to this institution. The description of the studies with their specified textbooks was printed in full, as were the eighteen rules with subdivisions; the manual labor system was minutely described, and equipment, income, student costs, and personnel were not overlooked. Massachusetts was found to be following closely the Michigan model, and the unique Cornell plan was commended. The Pennsylvania institution having abandoned the qualifying labor system was not, in spite of its name, any longer an agricultural college, and the Sheffield School with all of its scientific resources did not pretend to be. The westerners' astonishment

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at Yale's wealth of scientific equipment was somewhat moderated by their observation of the simplicity of its housing in "very plain brick buildings, none of them comparing with the Iowa Agricultural College in size, architectural beauty or imposing appearance."

But these true-visioned educational administrators were more concerned with men than with buildings and equipment. "We became convinced at an early day that the most difficult part of the mission intrusted to us, was the selection of a corps of professors thoroughly competent for the work—eminent as teachers of experience in conducting an Agricultural College. On the character and ability of its faculty will the character and success of the Institution depend more than upon all other circumstances taken together. Buildings, cabinets, libraries, and rich endowments, will all be in vain, if the living agents, the professors, be not men of ripe attainments, fine culture, and eminent teaching powers." From their observations they were convinced that the failures in industrial colleges had been due more "to the employment of incompetent men as members of the Faculty, than from all other causes combined." To avoid this fatal blunder they had "determined to rigidly scrutinize without fear or favor the qualifications of every candidate for a place, and employ none but men of tried and proven ability. Older and ordinary colleges may do with second rate men, but ours can only succeed with the best men."

But while "self-nominated candidates" were abundant, professors of the caliber required—especially in technical fields—were hard to identify and often harder to secure. As the best solution of this problem of supply and demand they had reached the conclusion that professional administrators have many times since endorsed, that young men competently trained in applied science, ambitious and industrious, with their professional reputations still to make, would provide the most available working staff. They realized that they could

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not hope to attract the Agassizs, Danas, Johnsons, Dwights, Chandlers, and Guizots, "but by employing the most promising among the younger men, who are willing to work in building up an Institution that bids fair to take its place, in due time, among the great seats of learning in the West, we secure enthusiasm, energy, ambition, talent and all the elements of success." There was need, to be sure, for a "few thoroughly tried and experienced men . . . to direct and control, and give to the Institution the benefit of their experience, but for the hard work required to build up and sustain such an enterprise" they "must have a strong element of young Western men."

Even more difficult was the selection of a president to lead and guide the destinies of the whole enterprise in its formative stage—one who could combine the requirements of a strong administrator with those of a great educator. The qualifications that they demanded approached perfection—"a man clearly comprehending the plan and objects of an agricultural college, who is in full sympathy with its friends, and a firm believer in the idea. He must be thoroughly educated, that he may inspire respect among other members of the faculty and the students; of untiring energy, for his mission is to build up an institution that will endure for ages and rank among the first in the West." Hesitant or unsound leadership would doom the enterprise from the start: "An incompetent man at the head of such an institution in its infancy, will inflict a blow upon its prosperity that will require years to recover from. It will dishearten the friends of industrial education, give the College a bad name, keep away the most desirable class of students, and, in short, prove as fatal to success, as is an incompetent commander in time of battle." To acquire such a paragon of leadership would have been sufficiently difficult in any period, but it was especially so at just this time when other states "were searching diligently for the very men we want." For the past year Wisconsin, Illinois, Minne-

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sota, Vermont, New York, Ohio, Indiana, and Massachusetts had been seeking heads for their colleges. While the committee had in mind several persons who they felt could fill the professorships creditably without further investigation, they were not yet satisfied with any of the candidates recommended for the presidency. No wonder Gue was led to declare in later years that it was harder to find a well-qualified head of an industrial college than a chief executive of the nation.

SUGGESTIONS FOR THE FIRST STAFF

By publication of their names in the official report the candidates both for the presidency and for the faculty were given more publicity than academic propriety of later times would sanction. The presidential recommendations in order mentioned were A. S. Welch, formerly of the Michigan State Normal; Dr. C. M. Witherill, of Lehigh; Dr. Wm. Clift, of Amherst; Dr. Paul Chadbourne, former president of the Massachusetts Agricultural College; Professor Whitman, formerly of Pennsylvania Agricultural College; Dr. George Law Olmstead, and J. B. Grinnell, of Iowa; and Dr. Amos Brown, president of the People's College of New York. There were three suggestions for the chair of chemistry: Professor Root, of the New York School of Mines, Professor S. G. Wright, of the Ohio Medical College, and Dr. S. H. Kridelbaugh, of Page County. The grouping "Botany, Natural History, Geology, Mathematics, etc." called out an imposing amount of talent of which a goodly proportion was from the state—Professors Baker, of Indianola; Piper, of Manchester; and Brainerd, of Dubuque; Dr. Parry, of Davenport; Dr. Shaffer, of Fairfield; and O. H. St. John, of Waterloo, assistant state geologist. In addition, without designated chair, there were presented the names of Professors Dupins, of Queens University; G. W. Jones, of Franklin, N. Y.; Wright, of Williston Seminary; Wright, of Yale; and Long, of Western Union, Ohio. There were "many others whose qualifications had not

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been looked into." Gue said later that for the presidency there were twelve applicants within the state and seventeen without.

Aside from the two who were elected and accepted it is impossible to determine how many on the lists were active candidates or even receptive to an appointment. But from the statement by the committee that letters had been written in their behalf and in a number of cases personal conferences had been held, it is likely that the greater number were willing to join the pioneer educational institution.

THE COMMITTEE'S RECOMMENDATIONS

From their investigations, observations, experiences, and cogitations, the committee presented eight definite recommendations to guide in the organization of the College and the selection of a staff: (1) the staff to consist at the start of a president, four full professors, and two assistants; (2) the studies to be those specified in the act of 1858 with the addition of practical agriculture and landscape gardening and such other studies as might be added by the faculty and trustees (there was no distinct mention of mechanic arts); (3) a system of universal, compulsory, instructive, and remunerated manual labor to be instituted; (4) the boarding department to be under the complete management of a steward; (5) admission to be distributed over the state on the basis of representation in the popular branch of the legislature, with entrance requirements to be determined by faculty and Board; (6) "Politics and sectarianism of every description to be carefully excluded, and never to be permitted to control the selection of students or members of the Faculty, and under no circumstances to be taught in any department of the College"; (7) the best apparatus and equipment to be secured and appropriations made at once for laboratory, library, and cabinets; (8) provision to be made for three or four non-resident professors—"men of eminence and great attainments in particular sciences, such

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as Geology, Natural History, Chemistry, Horticulture, and Fruit-growing"—to deliver a series of lectures to the students and the public each year, "that the College may have the benefit in this way of the best talent in the country."

The committee was aware that it would "require several years to fully develop and properly arrange all the departments of our College" and that there was much yet to be learned regarding its needs. But they closed with a tone of assurance: "It is gratifying to note the increasing interest that is yearly being manifested in the subject of industrial schools. The doubtful problem of a few years ago is today a fixed fact, tried and proved. Agricultural Colleges are now among the necessary institutions of growing civilization, destined to supply the great want so often felt by the sons of toil, that will enable the most lowly and obscure of farmers' sons to secure a thorough education suited to their wants and avocations."

PRELIMINARY ORGANIZATION AND STAFF

The legislature visiting committee in 1868 added the additional recommendation for the prohibition of intoxicating liquors within two miles of the College. This action was sought in petitions to the committee and to the legislature by "citizens of Ames station and vicinity." The legislature complied in the act of April 7, 1868, "to Provide certain Police Regulations for the Protection of the Iowa State Agricultural College and Farm and of the Students therein." The petition to the legislature had included billiard halls as well as saloons, but the legislators doubtless felt that the college authorities could provide a portion of the protection for themselves in their own code. The trustees hastened to inaugurate such a code at the May meeting when the use of tobacco and all intoxicating drinks was prohibited.

Having provided such moral safeguards, the Board, at the same meeting, took the positive action of establishing co-education. In 1864 Suel Foster had announed in an address

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to the State Agricultural Society that the College would provide agricultural training for the boys and horticultural instruction for the girls, and at its annual meeting in January, 1868, the State Horticultural Society had asked the Board "to make ample provision in this College for the thorough and practical education of the youth of the state of both sexes, on equal terms." The organizing committee was impressed with the success of such systems where they had observed them and urged that girls should be educated for farmers' wives as well as boys for farmers. This proved to be the overwhelming opinion of the Board. On "the proposition to admit females to the privileges of the College on the same conditions as males" the vote was nine to three. The opposing votes came from the members of the first three judicial districts in the southeast, where, perhaps, sentiment was a bit more conservative than in the rest of the state.

With the building nearing completion and the preliminary organization effected, the Board proceeded at last to name a president and the nucleus of a faculty. The selections were made upon the recommendation of the organizing committee. President T. C. Abbot, of the Michigan Agricultural College, had told the committee that if it could get A. S. Welch he would be "the best man in America" to organize the college. Endorsements by the presidents of the universities of Michigan and Kansas, the Michigan superintendent of public instruction, the president of Antioch College, and others all pointed to Welch's special qualification and adaptability. He had, in fact, shown an outstanding leadership in the new education.

Adonijah Strong Welch was born on a farm near East Hampton, Connecticut, in 1821. As the eldest child of a widowed mother, he developed a resourcefulness and industry that, added to an observing and inquiring mind, were to be his leading characteristics. Attracted by the reputed opportunities of its new university he went out to Michigan in 1839, and after preliminary training at an academy entered

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the University of Michigan and received a bachelor of arts degree in the second class, in 1846. He was an honor student, and during his senior year taught in the preparatory department. The A.M. was awarded him in 1852 and the LL.D. in 1878. Following graduation he studied law, but soon turned to teaching. He organized the first graded school in the state and was principal for two years. His career was then picturesquely varied by a year in California gold fields, where he made invaluable observations for a psychologist and social scientist along with a modest return for his labor. In 1852 he was elected principal of the new state normal school at Ypsilanti—a foundation that was to be classed as a representative product of the industrial movement. He served general education by the promotion of teachers' institutes and of a state teachers' association and aided technical training by service on the board of the agricultural college.

In 1865, failing health caused him to seek a milder climate; and he went to Florida, where he engaged in lumbering and fruit growing near Jacksonville in partnership with his brother-in-law. The following year the deaths of his wife and his partner unsettled his plans, but by the spring of 1868, when the Iowa committee sought his service, a new career seemed opening to him. His leadership in reconstruction politics had been felt among the northern residents of Florida, and he was offered one of the senatorships of the restored state government. No doubt, too, his ambition was heightened by his marriage to the widow of a former colleague at Ypsilanti, Mary Beaumont Dudley, a woman of strong personality and wide culture.

In April Gue wrote Welch inquiring if he would accept the presidency of the College. The reply, delayed for a month, was favorable; he would accept if elected unanimously for a relatively long term at a salary of \$3,000 and house, and, in order to assume the duties as promptly as possible, he would take the short rather than the full term in the Senate. On

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these conditions Welch was promptly selected by a unanimous vote with the understanding that he might complete his senatorial term. On June 17 he was chosen by the Florida legislature for the short senatorial term ending March 3, 1869, took his seat on July 2, and served the remaining twenty-five days of the long session before assuming his academic duties in Iowa.

At about the same time selections were made for the first faculty. George W. Jones, a young Yale graduate who had been principal of a school at Franklin, New York, was elected to the chair of mathematics—to which other subjects and manifold extra duties were to be added. For the chair of "Practical Agriculture" a man of varied talents and experiences was chosen. Norton S. Townshend, English born, had taken a medical degree, been an army surgeon, served in the Ohio legislature and a term in Congress, but his main interest was in scientific applications in agriculture. His efforts to establish state supported lectureships in Ohio had made him a pioneer in organization as well as in research. He combined, according to Gue's editorial comment, "the necessary qualifications of a thoroughly practical farmer with great scientific attainments, a fine scholar, and an accomplished lecturer and instructor." Albert E. Foote, another doctor of medicine, a recent graduate of the University of Michigan, only twenty-four years of age, was selected as assistant professor of chemistry. These, with a matron, teachers of the sideline subjects of music and French and German, and the ex officio farm superintendent, constituted the original faculty. O. H. St. John was elected assistant professor of geology, but though his name appeared with the original staff, he never reported for duty.

PREPARATORY TERM

The President and his family arrived on an unfinished scene at the beginning of October and were conveyed from the

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station in a farmer's lumber wagon drawn by a mule team—the only available transportation at the time. The students, sixty-six men and nine women, proved as unprepared as the plant, and both underwent a finishing process in the preliminary fall term that extended from October 21 to January 7. The learned scientists gave their efforts to elementary subjects, arithmetic, geography, and English grammar. Mrs. Welch, “an experienced and very accomplished teacher,” taught the President's classes during his absence in Washington.

The opening day was enlivened by a visit from the Boone County teachers who, assembled in their institute at the neighboring village of Montana, decided that an inspection of the new enterprise in higher education would be profitable and came in a body on the morning train, sixty strong. The train stopped at the farm, and the delegation was cordially welcomed by Dr. and Mrs. Welch and Dr. Townshend. After inspecting the building and its equipment they enjoyed a basket picnic. In the afternoon President Welch addressed the gathering on Florida. “Having been a resident of that state for the past three years and at present representing it in the United States Senate,” in the reporter's judgment, “he was well qualified to speak of the moral, social and political condition of the unfortunate sister state.” Dr. Townshend then “handled the subject of Animal Organization with ability and was listened to with great attention and interest.”

According to the reporter, the teachers departed “firm in the belief that at no very distant day the Iowa State Agricultural College will stand foremost among the educational institutions in the Western States.” They recorded their appreciation in resolutions, one of which involved a matter of especial concern to such a group: “That the course of study as laid down for the students and left open for ladies as well as gentlemen, thus fitting them for the practical duties of life is in striking contrast with the more aristocratic system of

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ladies' boarding schools which teach only etiquette and the necessary requirements for fashionable society, but neglect the more practical duties of housewifery."

Following the board meeting early in December an inspirational convocation was held at which Messrs. Gue, Melendy, and Cusey for the Board expressed gratification at the successful launching of the enterprise, and President Welch gave admonitions on diligence in the labor service and in strict observance of study hours that suggest that some of the problems of the undertaking had already arisen. But the President expressed full confidence in the institutional program in an interview with the *Chicago Journal* on his way to Washington to complete his senatorial term.

SENATOR WELCH

In his brief congressional service, while, as became a southern carpetbagger, Senator Welch was regular in the support of his party's reconstruction program, he found occasion to assert some of his dominant convictions with characteristically logical and assured tone. In supporting the fifteenth amendment he made a strong plea for political equality and decried all racial discrimination. As an ardent champion of women's rights he urged equal pay for female employees in government service. Most appropriately his final speech was in defense of the Bureau of Education against unsympathetic critics who held that its functions were non-essential or undesirable and proposed to withdraw its small appropriation. In reply to Senator Grimes' declaration that his state did not desire any federal educational help or recognize any dependence upon the national government for such aid, the college president-elect reminded him that Iowa had accepted 240,000 acres of land from which it realized an income of \$30,000 and asserted significantly and courageously, in view of the position that he was to occupy in a fortnight, the national responsibility to secure compliance with its avowed aims. "It seems

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to me that it would be well for this Government to see that the vast amount of land it has donated for the progress of agricultural and industrial science is so appropriated as to secure the great objects for which it is made; and that is one great purpose for which this Department is established."

THE INAUGURATION

With the President's congressional duty performed, a faculty selected, a student body "prepared," and a building for their living and labors nearing completion, the time had arrived for the formal inauguration. The academic gathering of March 17, 1869, in spite of transportation limitations was representative of the young state and its interests. The attendance was estimated at over 1,200—three times the number expected—and included the state's most notable political and educational leaders and nine representatives of the press. The members of the board of the State Agricultural Society had been especially forehanded in planning for their attendance by instructing their secretary at the annual meeting in January "to address the several railroad companies, and solicit passes to enable the members of the Board to accept the invitation of the Trustees of the Agricultural College to attend the formal opening of the Agricultural College and Farm."

Whether pass-holders or not, the audience was reported as "mainly from the farmers." A group of them met in the evening following the exercises with Col. John Scott as chairman and Dr. George Sprague, an editor of the *Homestead*, as secretary. A committee consisting of John Cleghorn, of Pottawattamie, Judge C. E. Whiting, of Monona, and Col. L. Q. Hoggatt, of Story presented resolutions which in addition to praising the efforts at preliminary organization, thanking the speakers of the day, and requesting that their addresses be printed, recommended that the Board petition the legislature to appropriate the payment from the nation for the expenses incurred by the state in the war "for the purpose of enlarging

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the capacity of this the most useful institution of learning in the State." The adoption of these resolutions was at least a gesture of good will and was in full accord with the spirit of the gathering.

The surroundings were still far from attractive. Gue said of the setting, twenty years later, "Looming upon the bleak prairie farm, windswept and desolate in all its surroundings, no more unpromising College enterprise was ever launched into existence—even in the 'wild west.' " Western wildness was offset by western enthusiasm for a local enterprise and by that of the devotees for the great cause which the institution represented. Already the prairie College was beginning to attract new settlers to the county, and the neighboring village of Ames, not quite four years of age, boasted some 650 souls and industrial, mercantile, and professional establishments that included four general stores, three "family groceries," a hardware store, two drug stores, three milliners, two dealers in grain and agricultural implements, two lumber yards, two blacksmith shops, a wagon shop, a paint shop, two cooper shops, two furniture manufacturers and dealers, two jewelers, three shoe shops, two harness shops, a livery stable, two hotels, two land agencies, two attorneys, five physicians. Over 100 houses had been built the previous year. But the rising "college town" was still subordinated to the more mature county seat, and it seemed appropriate that the welcoming address should be given by a representative citizen and leading state official of that city.

Lieutenant Governor Scott, an early and continuing friend of the College, in a few "appropriate extemporaneous words of welcome" predicted a great future for agricultural education but urged that adequate time be allowed for the full development of the program. He advised the students to abide by the rules and in their study of crops to "leave out the sowing of wild oats." To complete the morning exercises "Mr. and Mrs. Button and Mrs. Sanders . . . enlivened and rendered

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doubly pleasant the occasion with soul stirring instrumental and vocal music." Dinner for all followed "so far as the capacity of the dining room and amount of eatables would hold out."

At the formal afternoon program B. F. Gue, as president of the Board, spoke at length nominally for that body, though mainly for himself and his educational ideas. Governor Merrill presented the charter and seal, and John Russell of the building committee the keys to the building. The President gave his inaugural address, to which Townshend responded briefly for the faculty; and in closing, a visiting representative, Professor H. W. Parker, of Iowa College, Grinnell, read a poem for the occasion.

Two main ideas were iterated throughout the program—the great and essential mission of industrial education as it was here interpreted, and the equality of opportunity for the sexes. Their "People's College," for which they had struggled so long and earnestly, was open, Gue assured, to "all of God's people" of both sexes, but they were dedicating it especially to the "*education of the working people of Iowa.*" Governor Merrill felt that the prosperity of a state with lands of undeveloped fertility and with people of pioneer stock depended upon the general diffusion of scientific training. "Here, then," he exhorted, "let utility of scientific labor be demonstrated. From this institution let there go forth, in annual procession, a line of educated, intelligent husbandmen, trained in the secrets of nature which underlie their profession, and filled with an earnest, devoted enthusiasm for their work."

President Welch expounded the keynote theme with characteristic formality and elaborateness of argument. The College was committed "to the promotion of two great and salutary educational reforms . . . the withdrawal of the ancient classics from the place of honor which they have largely held in our college curricula, and the liberal substitution of those branches of natural science which underlie the industries of

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this beautiful State . . . [and] the free admission of young women, on equal terms with young men, to all the privileges and honors which the institution can bestow."

In the Doctor's exposition of the disciplinary and cultural values of the sciences, a critical hearer might have detected a marked divergence from the utilitarian viewpoint of his board, and foreseen in this difference of attitude the basis for future dissension. But the audience was not inclined to be critical, and the speaker turned rather quickly to the second reform, to which he devoted more than two-thirds of his address. To a lifelong women's rights champion this theme was most congenial. At great length and with logical exactitude he demonstrated that the higher education of women—heretofore generally denied—was justified and demanded on grounds of natural right, social expediency, and the "advancement of general morality and virtue."

Dr. Townshend for the faculty endorsed the program and its aims with added commendation for "the broad and unsectarian character" of the institution; for while the faculty would aid their students in attaining to the standards of Christian gentlemen, they could not fail to express their gratification that the feet of their pupils were "not to be tortured or dwarfed by the Chinese shoe of sectarian limitations." Such frank expressions of elemental morals were to bring censure upon the good Doctor during his brief tenure.

Even the poet of the day in his portrayal of "The Ideal Farmer and His Wife," as if by unified plan, tuned his muse to the prevailing theme—the scientific farmer in contrast to rule-of-thumb ne'er-do-well neighbor and the scientifically educated farmer's wife. Not content to stop with the general contrast of enlightenment with ignorance and superstition, the versifier sought to contribute his bit to the exaltation of the broad-minded West over the narrower-visioned East. With overstrained poetic license, Wells College was pictured as an academic convent and Cornell University as a monastic

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institution in contrast to the coeducational liberality of the West—and thus his climax was reached:

“Well done, O East, but not the best!
Here in the fresh and fearless West,
We smile to think of monks and nuns.
We dare to trust our noble sons;
We dare to trust creation’s Lord;—
His chorals give no ill accord;
The manly and the maiden mind
Together grow more bright, refined.
That place is holy ground and sweet,
Where earth and heaven together meet.”

Unfortunately for his devotion to the West, the writer—a professor of natural science, not of literature—later went to the Massachusetts Agricultural College, from which the Iowa Agricultural College could not attract him after formal election.

For the audience assembled, the reiteration of these appeals in impassioned exhortation, logical argument, or passably rhymed verse had much the superfluity of Irving’s English parson who endeavored to prove in his Christmas sermon that people should be joyous on that day. But if the faithful did not need confirming at this time, the sentiments were an affirmation and a challenge to the classical camp and to the unconvinced or indifferent public. And in the degree and distinctness of emphasis upon its cardinal tenets the Iowa Agricultural College stood out in the industrial crusade. The aims were declared forcefully and confidently; but measurably to realize them, the staff and board needed in full measure the divine aid which the President invoked in his address to the faculty:

“God give us faithfulness and devotion;—God give us mutual confidence—mutual esteem, and mutual helpfulness. Thus shall we be able to gather and concentrate all the elements of strength we possess—and thus,

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with the Great Father's blessing, will the rolling years bring their full harvest of fruits."

THE FIRST YEAR

The practical application of these high resolves and aspirations came all too soon. Upon the inspiration of oration, song, and poem the five-thirty rising bell next morning must have sounded with discordant clang. But such was the reality of industrial education. A people's college could not woo the muses in classic shades or loaf and invite the soul; the call was to be up and doing.

Entrance examinations were held on the two succeeding days in subjects that followed the specifications of the original act—local geography, arithmetic, grammar, reading, and spelling. Those regarded as "proficient" were admitted to the college class; those whose deficiency could probably be made up in a year were classified in the preparatory department; and a "few who had never studied English grammar and had made little advancement in geography and arithmetic were rejected." Within the standards set for freshmen and preparatory students there was no problem of securing full quotas. In less than a month every available room was filled and there were in addition 15 "day scholars." Eight vacancies occurring during the first term were promptly filled, and 22 applicants were refused for lack of room. For the first term the enrollment in the freshman class was 93: 77 men and 16 women; in the preparatory department 80: 59 men and 21 women. In the second term the College classification dropped to 78, the enrollment of men showing a loss of 14 but the women only 1. The preparatory group increased to 90 by additions of 4 men and 6 women. In this enrollment of women at the start the Iowa Agricultural College was the first of the land-grant colleges to be coeducational in fact from the beginning.

According to the Board's apportionment each legislative district was entitled to one student for every representative in

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the lower house. Applications were to be made to the county superintendents, who according to an uncertain statement of procedure would "examine each candidate and decide by lot" the successful applicant. The uneven distribution of students over the state made this provision of little significance. In the total enrollment for the first year of 192 students, 58 counties were represented. Next to Story's 29 and Boone's 16, the leaders were Wapello, 15, Benton, 11, and Harrison, 7. Clinton, Dubuque, and Jones each had 5. Polk had but 4, a number equalled by Black Hawk, Dallas, Johnson, and Scott. The good showing of certain counties was due to the influence of a board member or of other agricultural leaders in those districts.

Probably a considerable number of these first students were attracted more by the low costs and opportunities for support than by the special program. Some, it is known, were concerned with being freed from the classical college requirements rather than by the special appeal of the subjects offered. Whatever the limitations as to regional distribution, scholastic preparation, and occupational interest, there were more applicants available than could be provided for with existing facilities. From the beginning there was the characteristic problem of state institutions of congestion and inadequate equipment.

As the full college courses were provided for the first class, there was the necessity of securing a certain number of additions to the faculty if not to provide the full quota of chairs planned at the beginning. In his first biennial report, 1868-69, President Welch listed fifteen additional professorships to be filled "under the organization contemplated": human physiology, hygiene, and physical culture; English language and literature; political economy and constitutional law; logic and psychology; botany and horticulture; zoology and entomology; chemistry, general and analytical; geology and mineralogy; physics and mechanics; descriptive geometry and architecture;

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civil engineering; science and art of teaching; military engineering; French and German languages; vocal and instrumental music; supplemented by an instructor in drawing; and a preceptress and instructor in domestic economy. His contemplation showed a broad and liberal view of the scope of an industrial college but in a number of subjects anticipated interest and emphasis by many years. By the second year there had actually been added four professors and an instructor. Captain James Mathews of Knoxville, whose varied career included unusual success as a pioneer fruit grower, was placed in charge of horticultural work with the title "professor of pomology." The Captain was a native of Ohio where he had practiced law, served in both houses of the legislature and for two terms in Congress. After removal to Iowa in 1855 his public career continued. He served as prosecuting attorney of Marion County, was provost marshal of his district throughout the Civil War, and postmaster of Knoxville when called to his professorship. His selection was due mainly to his leadership in the State Horticultural Society. "The Captain," the *State Register* commented, "is probably the most thoroughly experienced horticulturist in the State. He will fill the chair to which he has been called with practical good sense and the most general satisfaction."

William A. Anthony, a Yale graduate, was brought from Antioch College to teach physics and mechanics. General James L. Geddes, with distinguished record in both the British and Union armies, came from the School for the Blind at Vinton to become "professor of military tactics and engineering." William Hillis Wynn, a classical scholar with a decade of service in the ministry and teaching, was secured from the state department of education as professor of English literature. A more modest appointment was to have profound significance in establishing the College's program. Charles E. Bessey, an enthusiastic young graduate of the Michigan Agricultural College, was taken a year on trial as instructor

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in botany and horticulture. Meanwhile the agricultural chair had become vacant by the return of Dr. Townshend to Ohio, and the geology professorship was still unfilled. Thus it was found that even more difficult for the firm establishment of the pioneer technological institution than the problems of buildings and equipment were those of competent, adaptable, and fairly permanent personnel. Both necessitated an adequate and assured income.