

THE PALIMPSEST

EDITED BY WILLIAM J. PETERSEN

VOL. XXXIX

ISSUED IN SEPTEMBER 1958

No. 9

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A New Kind of Education

On a raw rainy afternoon in September, 1868, Adonijah Strong Welch, a dignified Florida senator, accompanied by his family, left the train at Ames to board the lumber wagon which had been sent to escort him, the first president of Iowa Agricultural College, to his new home on the campus.

As the weary party watched the college buildings emerge from the rough, unbroken prairie ahead of them, they saw the Farm House, the barns, a dozen stunted apple trees, and a row of willows in front of the Farm House which were the only other trees upon the grounds. Main Building was only halfway completed. Undismayed, the group unpacked at the bare, dirty Farm House.

One of Welch's children later recalled:

From the moment, when from the veranda, he looked about his new domain that rainy afternoon, his great heart was filled with love for this school. . . . That devotion, which was greater than his ambition, was unfaltering through years of the most arduous labor, through suc-

cesses and failures, in health and in illness, until the day when he closed his eyes on all earthly labor.

The dramatic growth of Iowa State College during its first century can be attributed in large measure to such men as President Welch. Its road was often drab and discouraging, but a succession of devoted administrators and faculty and a great new idea in education caused it to live and grow to great heights.

The idea of providing the farmer and mechanic with a better education was becoming popular throughout the nation a century ago. Thus, in 1848, Fort Atkinson in northeast Iowa was being abandoned and the first Iowa General Assembly promptly memorialized Congress for the donation of the land and buildings to form a branch of the state university. This branch was to be an agricultural college — but nothing ever came of it. Meanwhile, men like Suel Foster, Muscatine horticulturist, and William Duane Wilson, editor of the *Iowa Farmer*, continued to champion the cause of industrial education in Iowa. It was not until the Seventh General Assembly, recently moved from Iowa City to the new capital in Des Moines, that definite action was taken.

It remained for three pioneer farmers, meeting in a rooming house amidst a February snowstorm, to draft the measure which eventually became "A bill for an act to provide for the establishment of a State Agricultural College and Farm with a

Board of Trustees, which shall be connected with the entire agricultural interests of the State." Opponents wanted to kill this bill for reasons of economy and even tried to repeal it after it was passed. But its three ardent champions — Benjamin F. Gue, Robert A. Richardson, and Ed Wright — mustered sufficient strength to pass the measure. The bill was signed by Governor Ralph P. Lowe on March 22, 1858, which is now the official founding date of the college.

Curiously enough, no college was begun in the ten years following the enactment of the bill. The Panic of 1857 brought hard times to Iowa and the Civil War absorbed most of the new state's energies. Few people thought much of the prospects of the new college and only six counties — Hardin, Jefferson, Marshall, Polk, Story, and Tama — sought it. Story County won by floating a \$10,000 bond issue and by enlisting private donations in Boone County as well as Story to bring the total amount to \$21,355. With this and a \$10,000 initial appropriation by the General Assembly the college was started.

A 648-acre tract was purchased and residents of the region made donations at considerable sacrifice in order to bring higher education close to their children. Amidst such enthusiasm the community celebrated with a big Fourth of July picnic.

Work now began in earnest — a farm house and farm buildings were quickly built. Then they

fenced the land and broke the sod. Private enterprise helped from that point. Manufacturers furnished implements for trial, breeders contributed foundation stock, and nurserymen donated fruit trees. Despite such progress it was discouraging business. The site was practically on the frontier.

According to Benjamin F. Gue:

A few log cabins of the early pioneers contained the entire population that then inhabited the country between the capital and the College Farm. Arriving upon the ground designated by that classic name, it seemed to me that it must have been selected as a place of exile, where students would some day be banished, remote from civilization and its attendant temptations, to study nature in its native wildness. Standing on the eminence where the College now looms up, we could see only one of the most beautiful landscapes in the west, but almost as wild as when Noah's Ark floated over a world of water. *When and how* a great State College was to be built up here, was a problem too difficult for any of us to solve. But we had got the idea, the land, and an endorsement of the Legislature, and we must work it out.

Fortunately, substantial Federal aid had become available with the passage of the Morrill Act. This bill, which was signed by President Abraham Lincoln on July 2, 1862, was especially designed to aid agricultural colleges.

The Morrill Act provided public lands to the states on the basis of thirty thousand acres for each senator and representative which that state had in Congress. The proceeds were to constitute

a permanent "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."

It was a broad charter — "the several pursuits and professions of life" covered just about everything. According to Professor Earle D. Ross of Iowa State College:

First and foremost, the act committed the expanding and consolidating nation to mass higher education. Historically the provision marked the extension of the public elementary and secondary school systems to the collegiate realm. It thus brought the nearest approach to Jefferson's educational pyramid in the state realm, but with much broader apex than he had visioned. The conforming state universities, dominated largely by the old traditions in aim and subject matter, had never made such an appeal. Here indeed was 'democracy's college' — in design and aspiration. The opportunity clearly was open to all aspiring young people who found existing institutions and courses of study unavailable or unacceptable.

The new Land-Grant colleges were to offer studies in agriculture, science, engineering — in fact almost anything that would help young people prepare for life in the rapidly industrializing

world. The Iowa General Assembly, convened in special session in September of 1862, promptly accepted the provisions of the Morrill Act. Thus, Iowa was the first state in the Land-Grant family. Additional debate was necessary to decide where to place the federal aid. The State University of Iowa thought it could expand its offerings so that it could be designated, but the proponents of the Agricultural College thought differently. In the end, the idea prevailed of a separate college of agriculture and mechanic arts.

Peter Melendy of Cedar Falls selected the Iowa lands, amounting to about 204,000 acres, which were to go to the College endowment. So well were they selected and so carefully administered that the College gained about \$800,000. As a result the Morrill Act endowment yields today something over \$20,000 annually which is used for faculty salaries.

As early as 1859 a committee for a College building, with a bit of reverse snobbery, took a look at the Old Capitol occupied by the State University and reported:

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 . . . of good respectable appearance, about good enough for the farmers of our state, *and good enough for anybody else.*

Even without a "costly dome or curious wind-

ing stairs," construction proved to be a series of misfortunes and pyramiding costs. When the contract was completed President Welch reported: "With singular lack of foresight the architect had completed the structure without making any provisions for lighting, heating, supplying with water or with adequate drainage." Additions of wings and various alterations and repairs brought the total expense of the building to \$230,000 before it burned down at the turn of the century.

With its initial faculty the college had much better success. Benjamin Gue and Peter Melendy were constituted a committee to look into similar colleges, in order to find out everything necessary for the organization of the new Iowa venture. They took their work seriously and actually visited sixteen colleges and schools, as well as the Smithsonian Institution, and the editorial offices of leading agricultural journals. They became fully aware of the important task that faced them:

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.

With little money or other inducements, they fell back on the sound principle of looking for young men, well grounded in the sciences, but with professional reputations still to be made.

For president they needed a more mature man with the necessary background for guiding a new enterprise. Their choice of Welch was excellent. Born on a Connecticut farm, he was a graduate of the University of Michigan, an honor student, who also held the degrees A.M. and LL.D. Following graduation Welch had studied law, but soon turned to teaching. His career included a year in the California gold fields, the principal's post in a new Michigan state normal school at Ypsilanti, and lumbering and fruit growing in Florida, where he went in 1865 because of failing health. He was a United States Senator when he accepted the Iowa offer of \$3,000 per year with house included.

A preparatory class came to the College in 1868, but the president was not inaugurated until March 17, 1869. It had been decided to admit women as well as men to the College, a revolutionary idea in those days, and Gue, Welch, and others repeatedly mentioned the equal educational opportunities for both sexes.

It was a workaday college from the beginning, with room for few frivolities. The rising bell rang at 5:30 a.m., and clanged the beginning and end of each period through a strictly regulated day

that ended at bedtime. The first students not only attended classes, but worked in the fields, tended the grounds, prepared meals, and built new buildings as part of their education.

Except for the farm and, later, a few professors' houses, the Main Building was the College. The students slept, ate, recited, and studied under one roof which also sheltered most of the faculty. The annual vacation came during the winter months when nearly everyone turned to school teaching as a means of providing cash for his next term in College.

The year started in March when the weather generally was inhospitable. Each student was required to bring a bed tick from home, and this tick was filled from a pile of clean straw near the entrance of Main Building. Beds were easily made with the supply of new straw, but when the straw broke into bits, as it did after a time, and the slats beneath fell down, the soft beds that mother made were present in troubled dreams.

President Welch not only looked after the academic schedules of his students, but tended closely to their spiritual needs and social pleasures as well. Daily chapel was held, mid-week religious meetings were encouraged, and Sunday services were never omitted.

Main Building was heated by a central hot air furnace, and the impracticability of this scheme was demonstrated every time a cold blast swept

in from the northwest. One part of the building would be too warm and the windows would be thrown open while the windward side would be uncomfortably cold. The heating system was so bad it was soon replaced by steam.

Light was furnished first by candles and later by gas generated from naphtha, but the illumination was inferior to that furnished by kerosene lamps in the students' homes. Water was pumped from the spring north of the farm to a supply tank in the south wing but was not well distributed. Bathing facilities consisted of a bowl and pitcher — which was what most students of those days were used to at home.

If life was simple, expenses were low. The budget for two sisters in the 1870's was a little less than \$270 for both for one year. This included railroad fare for 150 miles and return and "a pretty dress apiece for Sundays." Some could not afford railroad fare. The father of one coed told how he used to take her to College in March and come for her in November, traveling by team more than fifty miles over frozen trails from before sun-up until after dark on each trip.

At first there were but two curricula, a "Course in Agriculture" and a "Course in Mechanics." Shortly afterwards a "Ladies Course" was added. The first class was comprised of 173 students, 136 boys and 37 girls.

President Welch turned out to be a good

teacher and a capable administrator. The faculty, too, in the first two decades, was far better than might have been expected in a rude, almost experimental college in the west. Isaac P. Roberts, an alert young farmer from Jefferson County, was made superintendent of the college farm and instructor in practical agriculture in 1870, then went on to Cornell University, there eventually to become Dean of Agriculture. Charles E. Bessey began the classification of the diseases of plants, and trained at the College (and later at the University of Nebraska) more men into botany than possibly any other man who ever lived. He established at the College "the first botanical laboratory in the United States for undergraduate instruction."

Many other outstanding teachers could be mentioned. Louis H. Pammel had a great interest in weeds, grasses, and plant pathology. He was a tireless worker who introduced at the College one of the first courses in bacteriology to be offered in America. Herbert Osborn became the best authority in the Mississippi Valley on injurious insects. His name is perpetuated by the Osborn Science Club on the campus today. Joseph L. Budd developed into one of the great pioneer horticulturists of the nation.

Although Welch had a broad view of education, and the curricula were by no means confined to narrow vocational lines, his faculty immediately

set about building new curricula of the kind that were to become the hallmark of the Land-Grant Colleges of the future. Agriculture as a science was almost unknown — Roberts complained that he might as well “look for cranberries in Rocky Mountains” as for suitable books on agriculture in the College library. To compensate for the lack of suitable texts, the College farm was used for demonstration. Nearby farms were visited for observation of good and bad practices. Even dead animals were dug up, and — after placing the class carefully to the windward — used in anatomical lectures.

Within two years after the opening of the College, the “Course in Mechanics” had been divided into the departments of mechanical engineering and civil engineering. Developments in engineering, while no less important than those in other areas, were less unique because other institutions were teaching engineering, and there was no suspicion of “book-learning” for engineers as there was in many instances for farmers.

Veterinary Medicine, which heretofore had been practiced largely in connection with fine horses, was given a new role in controlling the diseases in Iowa farm flocks and herds so that the livestock industry of the state could flourish. Millikan Stalker, a graduate of the class of 1873, was, by 1879, head of the College’s “Veterinary School” which conferred a suitable diploma. Iowa was the

first state to establish a veterinary school in one of its publicly-supported institutions.

But among the small, stalwart, pioneering faculty none perhaps was more remarkable than the wife of the president. At Welch's inaugural, Benjamin Gue had pointed out:

In this people's college dedicated to the encouragement and promotion of industry, we must aim to make labor attractive not only to the boys who are seeking knowledge in their department, but to the girls, who can never become accomplished and thoroughly educated women without a knowledge of the art of housekeeping and the best methods of conducting every household occupation with system, intelligence and womanly grace.

President Welch spoke in much the same vein, and in 1869 Mary B. Welch was assigned the task of teaching home economics in what appears to be one of the first efforts of its kind in the United States. In cooperation with Mrs. Potter, the College matron, a rotation system was developed in which the students received practical laboratory training each week in the kitchen, dining room, and laundry under the general supervision of Mrs. Welch. In 1872 Mrs. Welch began giving lectures. During her fifteen years of service these lectures covered cooking, sewing, house-furnishings, health, care of the sick, ventilation, water supply, courtesy, hospitality, and entertainment.

In 1875 Domestic Economy was first mentioned in an official report, and in 1876 an "experi-

mental kitchen" was authorized. Believed to be the first of its kind in any college, the kitchen was originally only a tiny room in the basement where the girls were obliged to practice the culinary arts in small detachments.

President Welch himself actually taught at various times such subjects as rhetoric, German, Shakespeare, psychology, geology, political economy, sociology, genetics, and the history of civilization, as well as landscape architecture. He has been credited with setting the first general pattern for the naturalistic park-like campus of today.

It would seem that with a learned and efficient president, a hardworking faculty, and a devoted (if sometimes ill-prepared) student body, the people of Iowa would have been immensely pleased with their new state college. Such was not the case. The College, like others of its kind, was struggling hard to make a place for itself in academic circles, and did not immediately have great things to contribute. Narrow vocational interests charged that Welch, with his rather broad view, was allowing the College to drift "away from its original intent."

Welch had his strong supporters, and, had he kept his physical vigor, he might have been able to weather the storm. But his health was never robust, and the strain of teaching, administration, and carrying on public relations was telling. In 1882 he was glad to accept an invitation of the

Federal Commissioner of Agriculture to inspect agricultural schools in Europe. In 1883 he was removed from office by a three to two vote of the trustees. When he returned from Europe, Welch accepted the blow philosophically and continued as a member of the staff until his death in 1889.

Bessey served as president while Welch was away, and Seaman Knapp was made president for a single year. Knapp had been a strong member of the faculty, a supporter of Welch, and later moved on to prominence as a planter, educator, and federal agriculturist in the South.

At the end of Knapp's brief tenure the board made the almost whimsical selection of Leigh S. J. Hunt, who "had qualities of true genius but none of them was academic." Not yet turned thirty, he was particularly boyish in appearance — on at least one occasion he was mistaken for a freshman — and overly conscious of his dignity and authority. He resigned, on the pretext of ill health, July 20, 1886, after a scant year in office.

The board next chose W. I. Chamberlain, secretary of the Ohio Board of Agriculture. Cordially welcomed by Welch, Chamberlain began his four-year tenure auspiciously. However, he encountered some of the same kind of opposition which Welch had met, and, after certain campus unrest not directly related to this opposition, he resigned in 1890. His administration had been good, but not outstanding.

Through its formative years the College was often strengthened by the addition of its own graduates to the staff. Among them was E. W. Stanton, who taught in the department of mathematics and served in administrative capacities over a period of forty-eight years. He was vice president, and dean of the junior college. He was named acting president four times, though he never achieved the presidency. He was secretary of the board of trustees — with intermissions to hold down the president's chair — from 1874 to 1909. As such he kept careful watch on the financial dealings of the College. It is said that he and Herman Knapp, '87, made a perfect pair in the keeping and management of funds. Knapp, too, had long and devoted service with the College. He was business manager from 1887 to 1933, recorder from 1887 to 1920, treasurer from 1887 to 1935, and twice acting president.

The campanile, which is in the center of the Iowa State College campus and is perhaps the best-known landmark of the institution, contains the Edgar W. and Margaret McDonald Stanton Memorial Carillon. Stanton in 1899 gave the first bells in memory of his wife, who was the first Dean of Women at the College. After the death of Stanton, in 1920, additional bells were provided from his estate, and the carillon made a memorial to both him and his wife.

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