and show it while they retained ownership. It was then displayed on loan at the National Antique Air Museum & Hall of Fame in Wichita, Kansas.

In 1968 the writer mentioned to the Iowa Aeronautics Commission the location of the Solbrig Benoist and Commission Chairman, Frank Berlin, negotiated its gift to the State from Solbrig's son and daughters, Mr. Alfred Solbrig of Quincy, Ill., Mrs. Hope Keller of San Jose, Calif. and Mrs. Ruth Adams of Davenport. The restoration cost was a gift to the State from Mr. Anderson who is a native Iowan from Denison. The Commission paid only for its transportation to the Historical Building.

LAYING THE FOUNDATIONS

by Charles E. Bessey

The following article is a portion of the original "College Day" address delivered by Charles E. Bessey (1845-1915) in the college chapel, Oct. 20, 1908, at the fortieth anniversary of the opening of the Iowa State College (now Iowa State University) in Ames, Iowa. Mr. Bessey was professor of botany in the Iowa Agricultural College from 1870 to 1884 and served as acting president during the year 1882. A copy of the complete address is in the Annal's office.

A half century seems like a long time to us today, and yet I shall have to ask you to go back a little further still to find the beginnings of this college, when a few earnest men secured the passage of a bill by the legislature providing for the selection of a proper site on which to build an agricultural college. Among those early advocates of the college was Suel Foster of Muscatine. I remember him as a spare little man with a sparkling eye, and a quick, incisive speech. Always in earnest, always thinking of the good of the community, not self-seeking, he was a model citizen. The spirit of this pioneer still lives on this beautiful campus and here we should perennially honor his memory.

It is a matter of history that when it came to selecting a site for the college the committee was divided between those who favored this site, and those who preferred another a few miles east of the city of Des Moines, and Suel Foster told me that it was his vote that brought the committee to favor this location. For many years it seemed that the other would have been the better site, and there were many who ridiculed and denounced the selection, for no place in the State seemed to be more hopelessly isolated. Think of planning to set down a college in a thinly settled part of the State, away from the railroad, and separated from a miserable little village by the almost impassable "bottoms" of an uncontrollable prairie stream. It required a faith like that which can move mountains, to see in this remote site the beauty which new greets the eye. And no doubt Suel Foster's prophetic eye saw as in a visit the beauty of this scene today, as it is given to some while still in this life, to catch glimpses of "the sweet fields of Eden" in the world of the hereafter.

I pass over the years of waiting, to the day 40 years ago this morning when the college doors opened to receive its first installment of students. There were big, awkward country boys, two score or more of them, and a score or so of rosycheeked, shy girls from the farms and the little towns. How strange it all seemed. There were no "old students" to greet the newcomers. There were no traditors. There were no stories about students or faculty to be handed down with embellishments from upper classmen to lower classmen. Everybody was equally now, and inexperienced. And on the other side was the new faculty. There was the dignified and polished President Welch, a veteran teacher elsewhere, but new to Iowa, and to the particular education represented by this college. There was Professor Jones of somewhat severe mien, and with every evidence of being a vigorous, driving personality. And there was the bland Dr. Foote who was to lay plans for the department of chemistry, the energetic Dr. Townsend, and the lovable Miss Boaumont. It was a faculty small in numbers but remarkable in ability. These were the pioneers who headed the long line of teachers that have followed in the path broken by them here on the open prairie.

And so the work began. A new faculty gave instruction to a new student body. There were only the most meager facilities for instruction. There were blackboards, some benches, some chairs. There was a museum, small in size, but large in the number of dreadful specimens which it contained. With what feeling of horror must those innocent youths first have looked upon the numberless bottles of preserved snakes, the boxes of bats, impaled beetles and tarantulas, and the fierce-looking panthers and wild cats. It must have been an education in itself for those unsophisticated boys and girls to have spent an hour in this chamber of horrors, learning the lesson that "art is sometimes greater than nature."

In this young college there were no laboratories, no shops, and only a small library. It was a day of small things. The faculty lived in the building, with the students, the classrooms, the kitchen and the dining-room. With the exception of the farm superintendent and the live stock, the whole college was housed in one building. It was economical surely, and it saved time for students and faculty. No one lost time in going to or returning from his classes.

But this idyllic life was not destined to last long. The cold northwest winds swept down upon the college and its band of teachers and pupils so snugly ensconced in the big building. There were no trees to check the force of those chilly blasts, and in spite of the efforts of the old fireman the few little furnaces down in the cellar could not and would not keep the cold from creeping in. And right here was the beginning of the winter vacation so long a custom in the college. Finding that it was impossible to keep warm during the winter the college work was suspended until spring, and everybody went home. And this was repeated again and again until it became a deep-rooted habit which it took many years of agitation and discussion to remove.

Sixteen months from this opening day which we are now celebrating I first saw these grounds. It was a raw February day on which I reached the quite forlorn looking village of Ames. It impressed me with its treelessness and small houses with no shrubs and no dooryards, as a village which was all out of doors, and lonesome and unprotected. The drive over the rough, mud road, over a rickety bridge and the "bottoms" of Squaw Creek, was not reassuring. The mean approach to the college just at the base of the hill, and up through the barnyard, by the old Farm House, and then across the fields to the president's house might well have dampened the ardor of the newcomer. But he was young and inexperienced, and withal was an optimist, and he had faith and went forward. What a blessed thing is the faith and optimism of youth! It is the faith that removes mountains. It is the optimist that always sees the golden margin of the cloud, no matter how dark and threatening the cloud itself may be.

Look back with me nearly 39 years and see this campus as the young botanist saw it. There were no drives, no walks, no paths, no smooth lawn, and only a few small trees. There was the large building—"The College" we called it. The Farm House, a barn, some sheds, the president's house, and Professor Jones' house, these houses being away off on the prairie, seemingly a long distance from the center of activity. Probably the present generation has forgotten the story of these first houses for the faculty - how the early trustees, being of an experimental turn of mind determined to build them of "concrete" and actually had the president's nearly completed, when one fair day it crushed down carrying with it the astonished carpenters at work on the roof. Fortunately no lives were lost, and the trustees gave up their advocacy of the concrete of that time for the building of houses. The remains of the two houses were gathered up and used for the foundation of the drive that for so many years ran from College Hall southeast towards the present entrance.

That was the day of the old-time "labor system." The law establishing the college required every student to work "not less than three hours a day in the summer and two in the winter," and so it was averaged, and every one was compelled to work two hours and a half a day. The students were assorted into squads of convenient size, and over each was a "squad-master" who collected his men, took them to their work, kept them at it, and returned them and their tools at the end of the work period. For many of the young men it was slavery, for it certainly was "involuntary servitude." They were paid ten cents per hour if they worked faithfully and broke no tools. The makeshifts, the excuses, the evasions, that were resorted to in order to avoid this daily labor, if written, would fill a large volume.

At what did they work? The girls worked in the kitchen and dining room, while the boys mopped the floors, hoed weeds in the garden, milked the cows, worked in the barns at odd jobs, worked in the field, cut down trees in the fringe of forest northwest of the college, dug ditches, helped cart away the piles of dirt excavated from the cellars of the wings of the college building. Yes, everybody worked in those first years, and the practice was given up only when there were so many students and so little work that there was not enough to go around. You can maintain a manual labor system only when there is much rather simple labor to be performed, and not a great many persons to do it. Then too that was before the incoming of the laboratory and the shop as parts of a college equipment. In these nowadays the student works, and with far greater effectiveness educationally. It is far better for a boy to spend his afternoons in the soils laboratory, the dairy laboratory, the botanical or the horticultural laboratory, than for him to dig ditches, chop wood, hoe weeds, or milk the cows.

Unlike many of the agricultural colleges of that day this college from the first recognized the two great lines of work indicated in the Morrill law, namely Agriculture and the Mechanic Arts. Under the direction of President Welch two courses of study were laid out and made available from the beginning, and to this fact the college owes its remarkable symmetrical development. In nearly every other separate agricultural college in the country there was at first a onesided development, only the agricultural studies and appliances being provided, to the more or less complete exclusion of those leading to the Mechanic Arts. Herein this college has had a great advantage over its less fortunate sisters. From the first it gave equal weight to both industrial lines, and thus early won for itself that pre-eminent place which it has maintained to this day. For I hold it to be undisputed that the Iowa State College has more exactly filled out the requirements and privileges of the Morrill law than any other

of the institutions similarly founded upon it. And for this all credit is due to the scholar who could see far into the future. who could see that here must be built a real college on a foundation as broad as its charter. Then as now there were those who clamored for a cheap "quick meal" type of school, which might appeal to the ignorant and the uninformed, and for whose support class prejudice might be arrayed. But against such educational heresies President Welch stood firm, and throughout his long administration he held consistently to the higher ideals which he had inaugurated with so much success. There were times when with an adverse faculty, or board of trustees, or in the face of an adverse sentiment in the State. he seemed to yield, but it was merely the bending of the oak to the storm, which after it swept by straightened again to its former uprightness and symmetry. The people of Iowa may never fully realize how much they owe to the great man who was the first president of its State College. I am sure that during his life the State never estimated him at his true worth. He stood so far in advance of the ordinary president of State colleges and universities of any kind at that day, intellectually and practically that he could not be appreciated at his true worth by the very men who should have honored him as a great leader. Jealousy, rivalry, religious fanaticism all leveled their shafts against him. But firm in the conviction that his plans and ideals were right he held on his way steadfastly.

It was characteristic of the president that while grappled with some things and compelled them to yield to his strong will, there were others that he allowed to take their own way, and to effect their own solution. A notable instance was his treatment of the question of the admission of young women to the college. No special provision had been made for them, in fact they were not referred to in the law, but when they came they were assigned to rooms and to such classes as they were able to enter. There was at first no course of study for young women, the only courses being the Agricultural course and the Mechanical course, and in these the young women were registered. Some men would have kept them out of these quite unfeminine lines of study; others would have catered to the evident intent of the people of the State to send their daughters to the college. But President Welch simply waited, and watched for developments. So the first girls in the college went into the same classes as the boys. And this not discouraging their sisters from coming to college in increasing numbers and claiming a permanent place in it, he helped the faculty to devise a course in General Science for women. In it were such culture studies as history, literature and language, and that the young women of the State appreciated the value of the boon thus granted them is attested by their rapid increase in numbers. He spread no attractive intellectual feast beforehand to tempt the young women of the State to enter the college and swell the numbers in its first classes; he chose rather to wait and see whether they really wanted to enter the college. How sharply this contrasts with what I frequently see in college management where the attempt is made to create a demand by means of optimistically written circulars, lavishly illustrated by beautiful half-tone reproductions of photographs. This latter method of decoying young people to come to college may be justifiable from a business standpoint, but it certainly is lacking in good taste, and partakes quite too much of the style of the private normal schools, the business colleges, and the correspondence schools, all of which educational heresies were an abomination not to be tolerated by this scholarly president of the Iowa State College.

And now as we look back to those early days, and bring our vision slowly down to the present, we may answer the question as to what it is in particular for which this college stands. Such a backward glance over the 40 years of its active existence shows that it has not been simply one more college added to the educational facilities of this State. It has stood for something different, so different that during the first years of its existence the educators of the State did not know how or where to class it. It began as a protest against the narrowness of the old education, which looked askance at the sciences when they demanded admission to the college curriculum. That such a protest was necessary the older men remember, for in those days when the sciences were admitted at all they were usually given a distinctly inferior place. It was not at all uncommon to find much lower conditions of admission to the scientific courses than to the classical, and for a time the courses were but three years in length. The graduates from the scientific courses were properly looked upon as not standing on the level of the classical graduates. All this was admirably calculated to discredit the scientific studies, and to keep from their pursuit the strong men in the colleges.

This college from the first insisted upon the introduction of the sciences into the curriculum. They were to be given full opportunity to show their value as factors in a collegiate education. The old studies were boldly left out or given but secondary place in order that the experiment as to the educative value of the sciences might be fairly and fully tried. And it succeeded splendidly, in spite of the evident onesidedness of the experiment. I wonder now at the boldness of the men of that day. Certainly it required courage to proclaim to the world a belief in the educative value of the sciences even in the absence of the traditional culture studies.

And still more, the new college insisted on "practice with science" which being interpreted is what we know nowadays as the "laboratory method" in science. From the first this thought was dominant and it found early expression in all of the sciences. It is a well known fact that there in this now college was established the first botanical laboratory west of old Harvard University. And here too there was laboratory work in zoology when in the ordinary colleges in all of the middle west the students were simply conning text-books or not studying the subject at all.

As a result of this attitude of this college, and other colleges like it, the sciences have been permitted to enter into all of the old-time colleges. And now the sciences are not longer given a mean place. They stand as equal to the time-honored studies, and the student who attains the degree in science is given equal honor with him who gains it in arts. The laboratory method of teaching science has been accepted in all colleges, and it has been adopted by some of the more progressive teachers of the purely literary subjects.

It is not an uncommon thing for one to hear nowadays that history and literature, and economics and philosophy are taught "by the laboratory method." So we may claim

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to have contributed in no small way to the liberalizing and rejuvenation of the old-time curriculum and method of instruction.

What now of the future of the college? What should be its further development? As we look over the four decades of its history and note the necessary changes that it has undergone, it is possible now to suggest the most profitable lines of progress. For no institution however fortunate and successful in its past can stand still. It must go on, it must develop, it must seek out new lines along which it may grow into still greater usefulness to the community. That college which lives on its past successes is of little value to the present. It must justify itself anew perennially by what it is now what is doing today.

In its past history the college helped to broaden the curriculum of every other college, and thus made a most important contribution to the cause of higher education in this country. Having accomplished this so successfully, it should now give greater breadth to its own curriculum. As the old colleges learned from the new, so the new colleges must not fail to learn from the old. We taught the old colleges the value of the sciences in higher education, and as a result they have added the sciences to their courses of study. Let us not forget that in our zeal for the introduction of the sciences we gave scant attention to the old studies. It is time now that we should begin to liberalize our curriculum by the introduction of some of the old culture studies. For it is not true that without them we can do better, or even as well. Though they may not add to a man's earning capacity, they make him a more agreeable man to his fellows, and what is more, to himself, also. Every man should have some intellectual possession that cannot be bought, that is above and beyond price. Let us add some of these things to the preparation we give to the man who is to live in the open with his crops and his stock and his family. Let us if possible kindle in him a spark of poetic fancy, that this may make the long days less wearisome, and what the world has been in the generations that have long gone by. Let us give him something from the rich store of philosophy, that he may

think of these things when the hours of drudgery weigh heavily upon him.

And here I note with hearty approval that the movement for the introduction of culture studies has made headway in the agricultural courses in some of the colleges and universities of the country. I note with especial pleasure that in your last catalogue you particularly name literature, mathematics and history as necessary studies in the agricultural courses, and that in the recommended electives are such culture studies as economics, history, French, German, Spanish, literature and psychology. When you state your aim to be "to develop the agricultural students to the level of the educated in any profession," you place yourselves in the ranks of those for whom education means more than the mere training of men to do more work or earn more money. You are training them to be fit to live as individuals, and as members of the community.

Now all of these movements indicate that I can safely urge you to study to make the college still more useful to the men and women who come here for an education. The college has greatly improved the quantity and quality of the corn crop in Iowa; it should also improve the corn grower himself; it has improved the quality of the cattle in the State; let it not overlook the quality of the cattle growers. In your commendable zeal to make better engines, and pumps, and bridges, do not neglect the betterment of the engine maker, the pump manufacturer and the bridge builder. Let us look after the man a little more, not neglecting his product in so doing, but remembering him always.

And now as I close this rapid and somewhat cursory sketch, let me first of all congratulate you upon reaching this fortieth anniversary. I congratulate you upon the splendid success you have achieved — your twenty-four hundred students — your fine campus — your magnificant buildings — your admirable faculty. But more than all I congratulate you upon your honorable history, and that in the early years you had here the great men who laid firmly and wisely the foundations upon which you have so well built this great institution. Copyright of Annals of Iowa is the property of State of Iowa, by & through the State Historical Society of Iowa and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.