

LAYING THE FOUNDATIONS.¹BY CHARLES E. BESSEY.²

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 these 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. Well might this college erect a memorial tablet in his honor, and plant an oak tree to keep green his memory. On the tablet inscribe the words:

SUEL FOSTER:

PIONEER, PATRIOT,
LOVER OF TREES AND FRUITS,
ADVOCATE
OF
AGRICULTURAL EDUCATION,
FRIEND OF THE COLLEGE.

On the tree you plant place the simple label,

THE SUEL FOSTER OAK

and as the years come and go its growth and virescence shall serve to remind us that such lives as his live in their good deeds. The spirit of this pioneer still lives on this beautiful campus, and here we should perennially honor his memory.

¹The "College Day" Address delivered in the college chapel, October 20, 1908, at the fortieth anniversary of the opening of the Iowa State College.

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ADONIJAH S. WELCH
President Iowa State College 1869-1883

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 now greets the eye. And no doubt Suel Foster's prophetic eye saw as in a vision 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 forty 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 rosy-cheeked, 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 traditions. There were no stories about students or faculty to be handed down with embellishments from upper classmen to lower classmen. Everybody was equally new, 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 a department of chemistry, the energetic Dr. Townsend, and the lovable Miss Beaumont. 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 thirty-nine 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 house 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 walls 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. If you are inclined to search for relics, go and dig into the foundation of this old driveway and you will find fragments of the concrete walls that fell nearly forty years ago.

The young botanist was fortunate in being taken into the president's home until he became familiar with his surroundings, and the friendship and acquaintance then formed brought him close to the president and his family. Because he found the young botanist willing to work, the president

early brought him into his office and taught him many things in an executive way that have been no small part of his preparation for larger things when they came to him repeatedly later in his life. For the same reason the president soon put into the hands of the young botanist the planting of the trees on the campus and the laying out of the new drives and walks. And today as he looks out upon this beautiful campus he is thankful that he was given this task in the early days of his work in the college, and he remembers President Welch with gratitude for laying upon him this great task.

For many years the college garden covered ten to twelve acres north of the site of this chapel building. That had its beginning in this first year of the young botanist's career. The year before it had been a canefield, and the labor of fitting it for a garden was something appalling. With much zeal and in spite of the open ridicule bestowed on him by the superintendent of the farm, the young botanist covered the ground with barnyard manure before plowing. The highest agricultural authority in Iowa at that time declared that the application of such a fertilizer to the soil was worse than useless, and he laughed to scorn the foolish young botanist who bought all of the great accumulations in the barnyard and had them carted to his new garden. It was not many months before a new superintendent came, who knew the value of this fertilizer, and thenceforward the college garden could purchase no more of the barnyard accumulations.

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 eva-

sions, 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 fields, 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 one-sided 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 in fact he stood so far above the presidents of 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 levelled 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 he 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.

In the early days this college like all others was afflicted by certain infantile disorders. It is really quite amusing to watch these attacks, and to note how exactly they are reproduced in different colleges. And the amusing part of the case is the firm belief of each college that this particular attack is the first and only instance of its kind in the educational world. Very early in its history the college experienced a severe attack of the "student government" disorder. While it lasted, in theory the students governed themselves, making and enforcing their own rules, and meting out punishment to all who disobeyed them. I say "in theory," for to one who was on the inside of affairs as "officer of the week" for year after year,

this self-government was little more than theory, even in its most flourishing period. Had I the time and were this the place I could imitate Gibbon in his larger theme, and write the tragic history of "The Decline and Fall" of student government. Such a history would include the humiliating story of incompetent and weak student officials, the consequent disorders in the rooms and hallways, the incoming of the powerful forces of the faculty, the gradual increase of faculty control, and the final extinction of the last vestige of student government. Some old-time student of the early classes must write this tragic story, that it may be added to the long list of governments that have risen, flourished for a brief period, and then passed off the stage forever.

Who were the men who made up the faculty in those days when the foundations were being laid? At the head of the list stands the well-dressed, perfect gentleman, the cultured president, one of the most attractive men that I have ever met, and yet a rigid disciplinarian for both faculty and students. A man of medium height, of erect bearing, of a quick, alert eye, and in his later years with his massive head crowned with a dense covering of white hair—such was President Welch.

Next in intellectual strength stood Professor Jones of the chair of Mathematics, a man above the average height, erect in bearing, of swarthy skin, and straight black hair, which gave rise to the story often whispered from student to student that he had a drop of Indian blood in his veins. A fine teacher and much liked by his students in spite of his severity in the classroom, unfortunately he fell under the displeasure of the president, and a feud arose which resulted in his early retirement, greatly to the loss of the college as a whole and the students individually.

Professor Foote, a thin-chested, tall and somewhat stooping man, was the first chemist. He was excellently trained in his subject, and planned large things for his department, and yet the students of that day did not appreciate his scientific abilities, and gave more heed to an unfortunate temper which made him and them much trouble. His early retirement was I think a distinct loss to science in Iowa. It would have been far bet-

ter to have borne with his peculiarities, and to have retained for the State his splendid scientific personality.

The venerable Doctor Townsend, who occupied the chair of Agriculture before there were any students ready to pursue the subject was another of the strong men who helped to shape the early course of the college. A profound scholar in other lines, he was one of the best informed men of that day in the subject of agriculture. The college could scarcely hope to retain him on its faculty when his own State called loudly for him. Yet Iowa owes much to him for coming to its aid when it was maturing its plans for this college.

No account of the college would be complete that did not give large place to James L. Geddes, for many years the successful Professor of Military Tactics. A Scotchman by birth, he served in the English army in India, where he saw severe service. Then during the Civil War in this country he was long in active service, and was finally promoted to the rank of Brevet Brigadier General. All things considered he was one of the most interesting men I have ever met. A martinet in his profession, he could unbend, and when he did fortunate indeed were those who happened to be near him. His life had been most picturesque in its varied adventures in India, and in the Federal Army during the Civil War. A prisoner in Libby Prison, he took part in the repeated attempts to escape, only to be recaptured after short periods of freedom. It was my good fortune to share his confidence to a marked degree, and many an hour have I passed on the porch of the old college building listening to his tales of adventure and hairbreadth escape. After many years of faithful service the old man died in the harness, honored by faculty and students. There are many of us of the early years who have kept green the memory of the old general, and miss his presence when we return to the campus.

For four of the early years the college called from his home in southern Iowa the venerable James Mathews, a successful grower of fruits of many kinds, and made him Professor of Pomology. It was a novel experiment to attempt to make a professor out of such material, but the good sense

of the old man enabled him to adjust himself to his new surroundings, while at the same time he helped the faculty to see things from the outsider's point of view. He planted an orchard, and many small fruits, and he it was who planted the beautiful "Mathews Thorn" on the campus, a little to the south of the new Central Building. I remember when he walked onto the campus with the tree over his shoulder. He had found it in the forest west of the college, and noting its peculiar shape decided to add it to the trees on the campus. And this is his living monument. Long may it live to commemorate the name of the gentle soul who transplanted it and cared for it many years ago.

A little later the college called another successful "layman" Isaac P. Roberts, to its service as Professor of Agriculture. It was a bold and a startling thing to bring to a professor's chair a man who was known only in one small corner of the State, as a successful farmer. And yet President Welch dared to do it, and by so doing gave to the world one of the greatest professors of Agriculture that this country has produced. When Mr. Roberts came to the college he was appalled at his ignorance in regard to the subjects that make up a college course of study, but he set himself at work to learn something of chemistry, botany, entomology, physics, geology, and other things with which every college man is familiar, and in a few years he had not only demonstrated that he knew how to farm, and could tell the college boys how to do so, but in addition he now knew much about the related sciences and their applications, and had acquired the air of the cultured man who has dwelt in the college atmosphere. And when the shrewd president of Cornell University looked over the country for a man fit to take the chair of Agriculture in that great institution he selected our Professor Roberts, and took him from us.

Professor Anthony, a little, active, somewhat taciturn man, laid the foundations for a great department of Physics. He made large plans and looked far into the future. I shall not soon forget how astonished the trustees were when he coolly told them that for the equipment of his department he should have twenty-five thousand dollars. Today that does not seem

half as large as it did then. We are so used to the demands for large sums for equipment that now the professor's request appears to have been quite moderate. He bought much valuable apparatus, built the first mechanical shop, and set with his own hands the first Corliss engine the college owned. He too was taken from us by the discerning president of Cornell University, after several years of brilliant service.

And the lovable Professor Wynn, of mild voice and gracious manner, whom many of you remember, what pen can do justice to his personality? He brought into the college the first distinctly literary flavor, and taught us to look at the world through the glamour of the poet's eyes. Full of enthusiasm, loving his work and with an all embracing regard for his pupils, he soon won for himself a place such as I have rarely seen occupied by any other teacher. He was an ideal college professor. He was far more than a teacher in the narrow sense. He taught them literature, and language and history, but he did far more than this. He led them to see life in a new way. He showed them "a more excellent way" than living for self, or for the accumulation of material property. In his presence the young people of his day felt uplifted above the sordid things of earth. For a period in their college life they dwelt with the great minds of the past, with those whose thoughts were of higher things, with the philosophers and the poets of the world of letters. And who can measure the value of such a man to the young college, with its students gathered from the sparsely settled prairies and the isolation and loneliness of the pioneer farms. His life among us was a constant benediction. No wonder that his pupils loved him. No wonder that when they were in sore trouble they turned to him for counsel and comfort. No wonder that when they prepared to establish homes of their own they asked their beloved professor to place the seal of his approval and blessing upon them in the most solemn of all human contracts. No wonder that when death entered their homes he must come to give words of comfort as the loved ones were laid to rest in the eternal quiet of the grave. Even so, when the gray head of the great president, pressed down

and bowed with years of service, dropped in death, it was the beloved professor who came to lay him away under the shadows of the oaks in the college cemetery.

A few years ago it was my privilege to spend a blessed day with Professor Wynn in his Tacoma home on the Pacific coast. White-haired, and with a flowing white beard, he reminded me of the portraits of the prophets of old, but I soon found him to be the same youthful-minded, enthusiastic, genial and sympathetic man who for years was my most valued companion. In the afternoon of a useful life he now calmly awaits the setting of the sun, filled with pleasant memories of the past, the golden period of which he spent here on this campus, and in the companionship of his pupils in the early years when the college was still young.

Of the young botanist who came as a very raw graduate to be instructor in Botany and Horticulture I need say little more than this—that he was soon requested to add human physiology to the subjects he was expected to teach—that when the second semester drew near the president informed him that he would have to take the class in zoology (including entomology)—that somewhat later he was told in the same bland, persuasive manner that the class in comparative anatomy was waiting for his instruction. So the young botanist soon found himself occupying an elongated “settee” instead of a chair. And in those early years he was also the Secretary of the Faculty, no sinecure at that period when the faculty met regularly once a week, and when business was pressing every day. He will never forget how gratified he was when at the first meeting of the faculty after his arrival he was by unanimous vote given the honor of the secretaryship. He thought it remarkable that they should have so early discerned his fitness for this honorable position, and was duly elated. He learned, alas, before many weeks that instead of an honor, it was a piece of drudgery that the older members had adroitly put upon the youngest and least experienced of their number. It was a sad disillusionment. And yet it did the young botanist a world of good, for it taught him more about college management than he could have learned in any other way. And here let me suggest to you young men

in the present faculty of the college, and you students who hope some day to be members of faculties, that you do not avoid such tasks as this. If you are asked to take up drudgery of the kind connected with the secretaryship of a faculty, accept it as an opportunity by which you may learn how colleges and universities are managed. Likewise do not shirk work on standing or special committees. They all teach you something about the management and direction of men, whether in the faculty or the student body. For I hold it to be true that every teacher is a better and more useful member of his faculty if he has a pretty clear idea of the way colleges are controlled, from the trustees to the president, and down through the faculty as a legislative body, to the heads of the different departments, and the subordinates in the departments, and the relations of all of these to the students individually and collectively. Were all these relations more clearly understood there would be much less friction between the various officers and governing bodies, and there would not be the periodic eruptions which sometimes shake the college to its very foundations.

But in my roll call of those who had to do with the beginnings in the college, I must not overlook the students of those early days. It has often been said that the first class was remarkable for the many strong men and women it contained. This has been accounted for by the fact that these students had been waiting for the opening of the college, and that only the more determined had persisted.

There was the dainty Arthur who disliked to soil his hands, now one of the best known botanists in the United States—the sturdy Cessna, now our Professor Cessna—the two Devin boys who remained for a couple of years and then went to Cornell University—Dietz, now a prosperous and honored citizen of my own State of Nebraska—Foster, for many years a college professor, and college president—Harvey, brilliant, industrious, somewhat odd, well known for many years as an eminent botanist in the south, and later in New England—the slender Hungerford, who made a local name for himself and then lay down in early death—the brilliant and now much traveled Mattie Locke, and her husband Macomber (“J. K.”)

long a professor in the college, and since then a prosperous lawyer—Noyes, the genial maker of dictionary holders and windmills (which same inventions have brought him a generous fortune)—big Smith, the engineer and architect—little Smith, the successful physician—Stanton, the genial professor in the college for these many years—Stevens, long and widely known as Judge Stevens—the brilliant Tom Thompson, whose early death cut off what promised to be a most useful career—and Suksdorf and Tillotson and Wellman and Wells, all good men, and strong men.

And so as I run down the roll of the next class I see again—Beard and Green, Hagerty and Hawkins, Kent and Maben and Porterfield, Robinson and the inimitable Stalker, Swigart and Wattles and Williams.

Somewhat more faintly do I call up the faces of some in the class a year still later. Yet I see in the half shadow, Appleman, Baldwin, Boardman, the other Beard, the tall Buchanan, familiarly known as "Bob," the Clingan boys, Jackson (Governor Jackson they call him now), little Kiesel, full of mischief and an uncontrollable good nature, Lee, McCarger, Parsons, Randleman, and Whitaker.

And thus their faces come to me today, shadowy, fleeting glimpses of those who sat before me in the class room in the days when the college was still so young that every student left his impress upon it, as he left a pleasing picture upon my memory. Yes, these early students were builders of the college, and each contributed his mite to its foundation.

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 forty 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 one-sidedness 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 here in this new 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.

With this emphasis upon the sciences the college early placed increasing emphasis upon the applications of the sciences. Botany was extended into horticulture and certain phases of agriculture; chemistry was made to include the study of soils and the composition of forage, and other animal foods; physics was carried out into the fields of electrical and mechanical science; and zoology was broadened into the compar-

ative anatomy and physiology of domestic animals, and the scientific and economic aspects of entomology.

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 no 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 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 it 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 can not 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 the loneliness of his isolated life more endurable. Let us add to his knowledge of 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.

A significant movement began some time ago among the engineers, who have accordingly made stronger and stronger demands for a broader training for the engineering graduate. This finds expression in your last catalogue in these admirable words: "A college course in engineering should be in the first place a training of the mind of the student toward ability to think logically, to observe accurately, and by the applica-

tion of the former acquirement to the latter to reach correct inferences." Never were truer words spoken. The first thing for the student is not to learn the art of engineering, but rather to train his mind, and after that to acquire the technical information of his profession. Gentlemen of the Engineering faculty, you are to be congratulated upon taking this advanced position. Elsewhere, I have observed that the same thing has been reached by a six-year course in engineering in which at least two years of culture studies have been added to the usual engineering studies, with an arrangement that on the completion of these liberal studies at the end of the fourth or fifth year the student may be awarded the degree of Bachelor of Arts. Such a six-year course, for this purpose has been announced by the Engineering faculty of the University of Nebraska during the present year.

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 magnificent 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.

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