

City for example, in a comparatively few years had quite extensive buildings and a large student body. The same history in regard to education in medicine could be written. The private schools rendered an important service in that they provided practitioners for many sections of our agricultural districts where otherwise quackery would have prevailed.

Many had the impression that our educational problems would be settled with the requirement of 15 units of high school for entrance. Altho of a somewhat different type our educational puzzle is still with us and probably always will be to a greater or less extent.

In our present problem the content of our course of study has assumed greater proportionate significance because four years is not sufficient time in which to enlighten the student in regard to all the fundamentals as well as the essentially practical phases of the various branches of veterinary service. At present it remains four years of college work with fifteen units for entrance, but there is now a definite need for extending these requirements.

The chart showing the introduction of the various subjects into the course of study and the period of time over which they are taught, tells the story much better than could be done by mere words.

V.

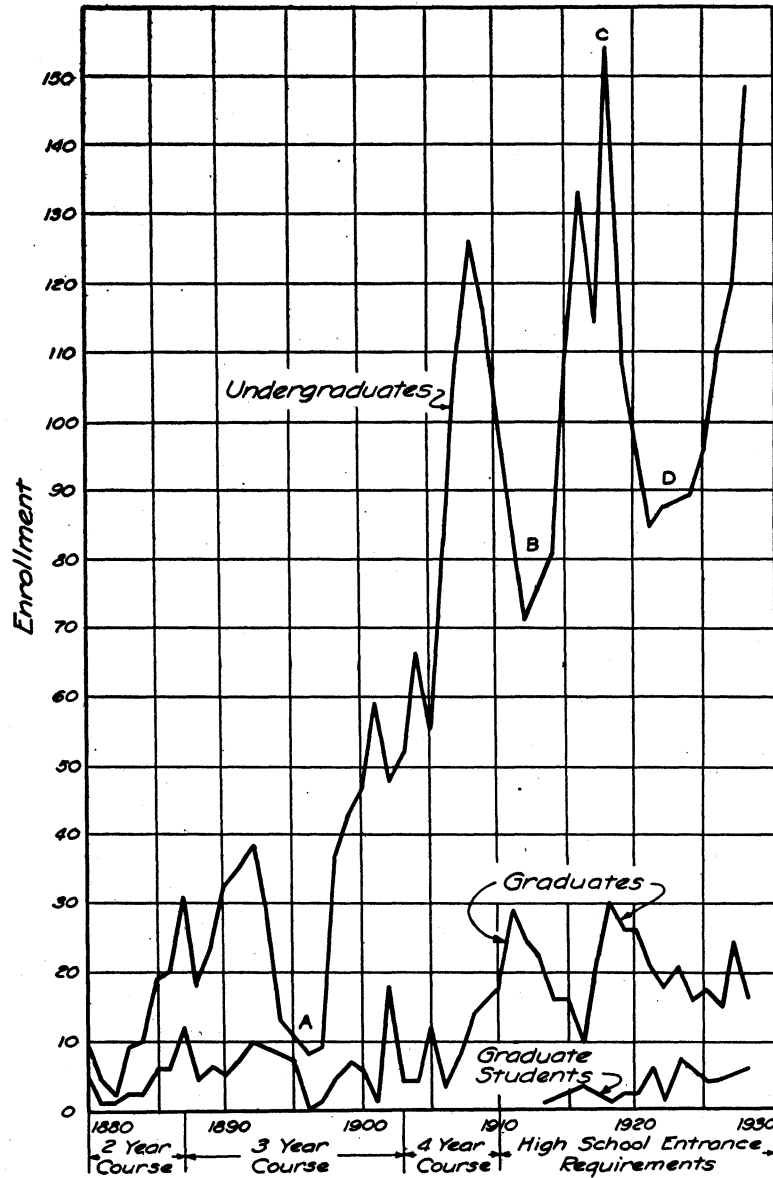
STUDENTS AND ALUMNI



THE graph on another page showing the number of students enrolled in the Veterinary Division from its beginning is an interesting study. The depression of the line indicated at "A" was the result of extraneous causes and led to considerable doubt as to the advisability of continuing the Veterinary Division. That period (1892 to 1896) is referred to by Dr. Stalker in one of his reports (1897) in the following words: "Everything went well until the almost unprecedented decline in horse values Such a state of affairs tended to discourage students from entering the profession, which was not so full of promise as formerly. The natural result was a decline in attendance. Meanwhile the general government began to want specialists in this line for the prosecution of its work—there proved to be an active demand for bright, well-trained young men to enter the Bureau of Animal Industry. Colleges and experiment stations were looking for educated veterinarians. All this has brought about a reaction and now young men with fair educational preparation are actively interesting themselves in veterinary studies." This period is also known as the "panic of the '90's" and it will be noted that no veterinary student graduated in 1896. After 1897 the enrollment showed an increase, which became most marked after the "reorganization." A part of this increased enrollment can be ascribed to the introduction of the four-year course which would in itself increase the

enrollment from 20 to 25 percent without any increase in the size of the entering classes.

The depression at "B" was due to increased requirements (chiefly entrance) and was predicted by the dean in his report to the president. The Iowa State College has, however, always been more concerned



about "quality" than worried over "quantity" of students. After a few years the enrollment began to increase again until we had the rather abnormal enrollment indicated at "C", which was due in part to the war period when most of the "private" schools closed their doors and their students (who had sufficient entrance credits) went to the state institutions. The depression at "D" is the result of the same general influence as operated at "A" except in one case it was a "panic" and in the other the aftermath of the world war.

The steady growth during the past eight years has had no artificial stimulation, but instead represents the reaction to the constant demand for more and better trained veterinarians. The author anticipates that this curve will continue until it reaches the maximum and capacity of the Veterinary Division. Limited enrollment has already been announced (60 freshmen). In order to replace those who are daily dropping out of our ranks and for the continuation of our work without any extensions, the veterinary schools of the United States must graduate on an average of 50 veterinarians per year. This would mean an enrollment of from 225 to 250 students.

The number graduating each year is indicated by the lower line in the graph, while the dotted line indicates graduate enrollment. It must be remembered that a large freshman class in 1928 does not mean an increase in the graduating class until 1932.

Alumni of the Veterinary Division of the Iowa State College have contributed much to the development of the profession. During the early years, the number was comparatively small, but those who did graduate soon found a great demand for their services, not only in general practice but in institutional work. This was indicated by the statement contained in President Beardshear's report for the year 1899, in which he said: "Ninety-five young men have graduated from this course (veterinary). Out of this number 10 states have selected veterinary professors for their agricultural colleges or state veterinarians, or have filled both offices from the same source of supply." Among those the president referred to were:

DR. C. A. CAREY ('85) of Alabama, who has been State Veterinarian of his state for many years and has been dean of the Veterinary Division of the Alabama Polytechnic Institute since it was organized. Dr. Carey has always taken an active part in association work and has probably done as much for the development of the livestock industry of the South, as any one person.

DR. SESCO STEWART ('85), who was founder and director of the Kansas City Veterinary College, is fondly remembered by all of the men who graduated from that institution. He served as president of the American Veterinary Medical Association in 1902-1903 and as its secretary from 1895-1902. Dr. Stewart was a big factor in the development of the veterinary profession in the middle west.

DR. GEORGE H. GLOVER ('85), was born in Blackhawk County, Iowa, in 1864, but moved to Colorado, where he graduated from the State College of Agriculture at the age of 20. He then came to the Iowa

About 45 percent worked a part of their way thru college while 54 percent were assisted wholly or in part by their parents, and over 40 percent borrowed money to defray a part of their expenses while in college.

Of the extra curricular activities in college, football leads, as it did in high school, but literary societies win over baseball and track. Interest in 33 other activities is quite equally divided.

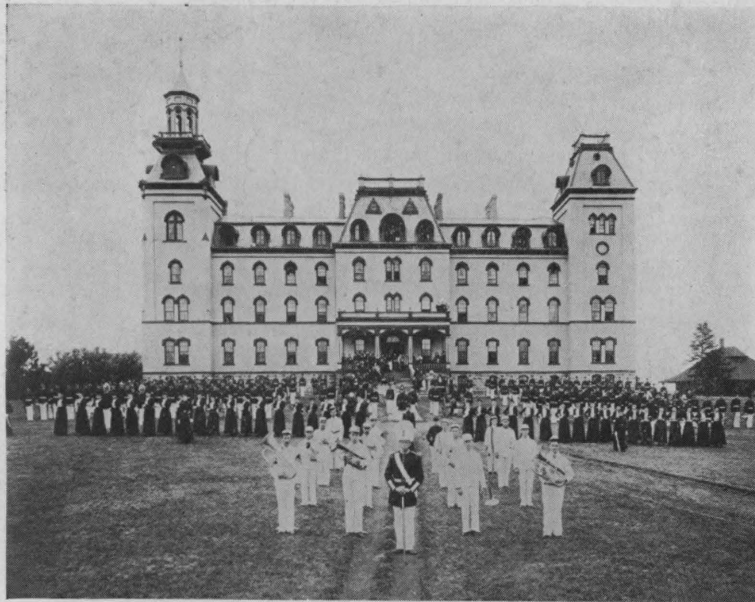
Now let us see what our alumni have to say about the much discussed (on the campus) question as to what effects these activities have on grades. Nearly one-half of our alumni expressed themselves on this point. Thirty-six percent say that the grades are not affected, between 17 and 18 percent say the grades are increased, while less than 5 percent indicate that grades are lowered.

One would expect that where such a large percentage of students are working a part or all of their way thru college insufficient finances would be one of their greatest difficulties. This was in fact more frequently reported to be the case than any one of the 35 difficulties encountered while in college. Inability to study came next, while too heavy a schedule was third.

Financial difficulties continued very naturally with many of the graduates for several years after leaving college, but lack of experience and confidence, with little knowledge of business methods, were contributory factors in many cases. General practice reports about three times as many alumni (62.5 percent) as the next largest field, that of the Bureau of Animal Industry (20 percent). The latter is almost equalled by the educational field (19 percent), while state sanitary work is only 1 percent below that of education. More of our alumni have served in the army than most of us realize, as about 12 percent report having been thus engaged. Commercial work also seems quite attractive as over 10 percent are making or have made their livelihood in this field. Over 4 percent report service as dairy or sanitary officers, while those engaged in small animal practice is about the same with physicians, dentists, pharmacists and a few farmers completing the principal part of the list.

Our alumni are certainly "joiners," as 48.3 percent of the replies show that they belong to the national association, 51.24 percent belong to the state association and a large number belong to a local association. In addition to these there were 48 other societies and organizations of various kinds in which one or more of the alumni replying to the questionnaires held membership.

All this indicates a community interest on the part of the graduates from this division. They not only take an interest in community affairs, but take their share of the responsibility, as shown by the fact that nearly 3.5 percent are acting as mayors of their cities, 15.5 percent are serving as councilmen and nearly 9 percent are assisting in the educational work of their communities by serving on school boards. Others are acting as city milk inspectors, county coroners, bank directors, on veterinary examining boards, etc.



The Cadet Corps of the early days in front of Old Main



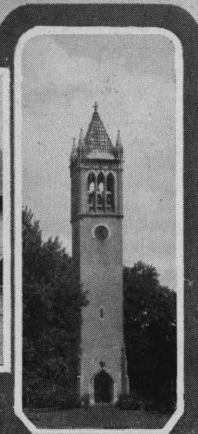
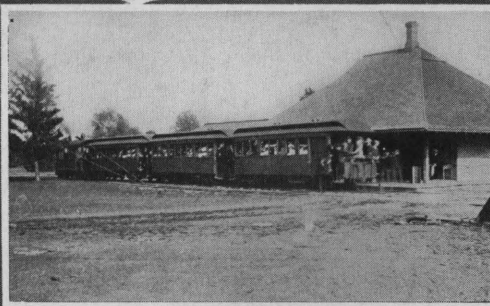
Central Building, successor to Old Main



Iowa State's Student Union, a memorial to those who served in the World War. Occupies site of Old Veterinary Hospital

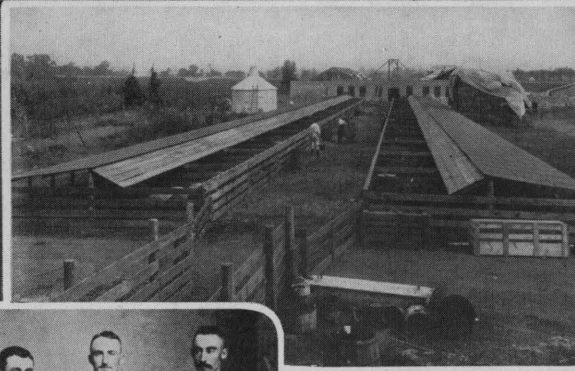


Agricultural Hall, Center of the Agricultural Division



1. East entrance to Veterinary Quadrangle. 2. Administration Building. 3. "The Dinky." 4. The Campanile. 5. South Hall goes up in smoke.

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1. Emergency serum plant. 2. Class of 1885. 3. Class of 1886. 4. S. A. T. C. days

The question is frequently asked, where do the veterinary graduates of Iowa State College go? While exact figures cannot be secured, it is only natural to expect that Iowa should claim a large percentage of them. Our records indicate that 50 percent is the approximate number remaining in the state. South Dakota, Minnesota, Nebraska, Missouri, Illinois, Kansas and California each take from 3 to 6 percent of our alumni, while the remainder of the 35 states report a smaller percentage.

The various capacities in which alumni have served make a list numbering 26, of which general practice would be expected to lead by a wide margin. These figures indicate that the Veterinary Division, while it has served Iowa in a large way, has also done its share in helping to solve national problems falling within the field of veterinary medicine. Some of our earlier graduates and the splendid work they have done have been referred to elsewhere.

During the 50 years of the Veterinary Division, 594 students have received the degree, doctor of veterinary medicine.

HONORARY DEGREES

On two occasions during the 50 years, so far as can be ascertained, the Veterinary Division has asked the college to confer a degree as a recognition of great service rendered to the nation.

The first occasion was June, 1915, when an honorary degree (D.V.M.) was conferred on Marion Dorset, M. D., of the Biochemic Division of the Bureau of Animal Industry (U. S. Department of Agriculture). Dr. Dorset was born in Tennessee in 1872. He received his Bachelor of Science degree from the University of Tennessee in 1893, attended the University of Pennsylvania ('93-'94), and secured his Medical Doctor degree from George Washington University in 1896. He became assistant in the Biochemic Division in 1894 and in 10 years had been promoted to the position of chief of his division, in which capacity he is still serving.

Dr. Dorset is a thoro scientist and research worker, having done much valuable work on the chemistry and biology of the tuberculosis bacillus, as well as the chemistry and bacteriology of meats. His outstanding work, however, from a veterinary viewpoint, was in connection with the etiology and prevention of hog cholera. He was only 23 years old when he came to Iowa the first time to study an outbreak of hog cholera, and from that time on until he had solved the problems of cause and prevention Dr. Dorset was a very busy man. The culmination of his achievement and its announcement to the public are referred to elsewhere (Biological Laboratory).

The second occasion was on the event of the commemoration of the fiftieth anniversary of the Iowa State College (1920), when the honorary degree Doctor of Science was conferred upon Dr. John R. Mohler, chief of the Bureau of Animal Industry, United States Department of Agriculture.

Dr. Mohler was born in Philadelphia in 1875. After completing high school, he attended Temple University and later the University of Pennsylvania, graduating from the School of Veterinary Medicine in 1896. Dr. Mohler was appointed chief of the Pathological Division of the Bureau of Animal Industry in 1902, after having served the bureau in various capacities since 1897. He served as assistant chief of the bureau from 1914 to 1917 and has been chief since that time.

Dr. Mohler has contributed much to veterinary literature in the way of translations and original articles. He has always taken an active part in affairs of associations, both veterinary and a number of others closely allied to medicine.

Not only has Dr. Mohler been able to "produce the goods" in field and laboratory, but he is one of the outstanding chiefs in the United States Department of Agriculture, which is an indication of his executive ability. In his position as chief of the bureau, Dr. Mohler has done more to protect the livestock industry of this country against the invasion of foreign diseases and unfair competition than any other government official.

The Iowa State College honored itself in recognizing these men and their contributions to humanity.

STUDENT LIFE

(Quotations are from History and Reminiscences of class of 1897.)

1878: "One Sunday evening immediately after prayer meeting a Young Men's and Women's Christian Association was organized. This was the beginning of the work, the good influences of which are now so apparent. Actuated by the president's excellent talk on the use of words, an anti-slang society was started, but like many other good ventures started by the students, it soon died from indifference."

"Football made its appearance at I. A. C. and was appreciated as a great game. It took the place of baseball and croquet, and even the specials and some of the professors succumbed to its influence."

1879: "A victim had been selected, the judge chosen and a jury impaneled numbering some of Iowa's most energetic young men. The trembling prisoner, innocent of aught save a sense of his own unworthiness, was brought into court to answer the grave charge of having spasmodically closed his left optic while in the presence of a senior lady. The witnesses being duly sworn testified to the veracity of the charge and everything seemed to indicate a speedy conviction of the prisoner. But he, wishing to demonstrate his innocence, requested the privilege of proving an alibi. The judge was dumbfounded, the jury stupified, for alibi was a word entirely foreign to their vocabulary. Finally the judge, not daring to refer to the Webster's Unabridged lying upon the table, having been used to administer the oath to the witnesses, was about to commit the prisoner for contempt of court, when the prosecuting attorney came

to the rescue, stating that on no previous occasion had a prisoner dared to encroach upon the time of that court of justice to prove so trivial a thing as an alibi. Owing to the faulty records the remainder of that trial has ever since remained a profound secret."

1882: "On the 8th of April at 6:15 p. m., a terrific cyclone visited the college grounds, destroying much property and injuring several persons. After completely demolishing the house occupied by Mr. and Mrs. McCarthy, about three-fourths of a mile south of the college, and injuring them quite severely, it then removed a few of the chimneys on the president's new house and entered the college campus from the south side, making sad havoc with all that was before it. The first that fell a victim to its fury was the new bridge south-east of the college. The apron and floor of the bridge were lifted bodily from their foundations, leaving the framework of the bridge undisturbed, and were carried about eight or ten rods to the hill north of it, where they plowed a deep furrow in the hill side. South Hall was next visited and partially destroyed by having its walls damaged, windows smashed in, and chimneys removed. It then seemingly divided, one portion promiscuously tearing up the trees about the lawn, blowing off the chimney to Professor Budd's house, and partially destroying the horticultural barn, while the other portion blew the top and body off the 'bus, which was standing within fifty rods of the college, over into the evergreens together with its passengers numbering not less than ten or twelve. Mrs. Professor Bessey received slight injuries in the face, and Mr. Connell had three of his ribs broken, and sustained internal injuries, which left him in a very critical condition. It next visited the college, broke up the chapel exercises, smashed a few window lights, destroyed the railing on the south tower, and toppled over a few chimneys. Then it passed to North Hall, where it joined hands with its fellow and completely ruined the upper part of this large brick building. The damages sustained by the college property were estimated to be from \$25,000 to \$30,000."

1884: "This was a term of organizing. Three new societies were organized by the members of the three special courses, viz.: veterinary, agriculture and engineering. Their objects were the discussion and co-operative investigation of subjects directly relating to their particular courses. They held their meetings every alternate Friday evening."

One must remember that during that period, '70-'97, the student body was comparatively small and practically all of the out of town students lived in the "Old Main" building, the young men and women occupying separate floors. In order to control the "fractious" element a "proctor" system was maintained.

Literary societies were the chief extra-curricular activity of the students (outside of athletics, which as usual were for the few). This was true even as late as 1905 and 1906. Even after this time, one evening (Friday) a week was set aside for literary societies

and no other "attractions" were permitted on that evening. For many years the literary societies also furnished the principal social contact as there were few social fraternities and sororities and even those were "banished" under President Beardshear's administration as undemocratic and not in the best interests of the student body. When Dr. Storms became president the college had grown considerably and fraternities and sororities had developed rapidly at other colleges, so it was considered safe to permit them at Iowa State College "if properly regulated." With this development the social life of the students was shifted in a few years ('04-'07) to the fraternity and sorority houses.

Man is by instinct a sociable creature and social contacts are natural and necessary if young people are to become good and useful citizens. This fact is now recognized in all educational institutions and in fact social behavior is really a part of a student's education. As a result, a system of chaperonage at student social functions and matrons in the dormitories has been provided. Instead of having a closed evening for literary societies as formerly, the chief interest now on Friday and Saturday evenings is in the social life at the fraternities, sororities and the new Union Building. The 1928 Bomb contains the organization and membership of only four literary societies, which have thus far survived the new order in student activities. Their total membership last year was 60 out of a student body of over 4,000.

There was a vast amount of good came to the student in the days when literary societies flourished and many of the older alumni fondly refer to them when they return to the college. The author has always valued highly his association with the literary society (Welch Eclectic) when he was a student not only because he needed that training very much, but also because of the type of men (W. A. Tener, Cohagan, etc.) with whom it brought him in contact.

The development which came to the student in literary society work along public speaking lines was of much value, especially to those who expected to practice a profession following graduation. This was recognized by the faculty and after the literary societies became less active, public speaking was introduced into some of the courses (including veterinary) as a required subject.

(The remainder of this chapter was written by Miss Mary Morrison Beyer, as an assignment in a class in Technical Journalism.)

In the "bustle" days of the '80's and '90's when the men wore derbies and stretched their tight trouser legs over the lean lines of a bicycle, Iowa State College was but a building or so scattered around in an orchard.

In the '80's and the early part of the '90's all the boys and girls lived together in "Old Main" building, a brick and stone affair, which stood where the green spires of Central now pierce the blue. In the basement thrice daily they gathered for meals. On the first floor of the building were most of the class rooms of the college. The

second floor held the coeds (then known merely as girls) and the preceptress (now known familiarly as the chaperon). The upper class men lived on the third floor, and on the fourth floor was "Freshman Heaven," known thusly because it was the haven of the the freshman boys.

On the first floor between the men's stairway and the women's stairway was an imaginary, yet sternly enduring, line, called in the language of the ancients, the "dead line." Beyond this line coeds must not step, further than this line the youths dare not lurk. Here one would meet one's "special," or in modern terminology "steady," or the member of the opposite sex most preferred at a certain time. And great was the hanging over the "dead line" when a bell, or perhaps a most insistent preceptress or proctor, called the young folks away to study.

Studying they were supposed to do between the hours of 7 and 10 o'clock on week day evenings. A few seconds after 7 o'clock a stern proctor would go around and inspect all rooms to ascertain if all were present.

However, night life during the week had its variations, particularly if one were telegraphically minded and added a little bit of ingenuity to the making of the said variations. There was the "air line." This was invented by the lovelorn boys on the third floor so that they might communicate with their lady loves on the second, in stolen, odd, and nevertheless delicious moments. First was a series of dots and dashes on the radiator or empty gas pipes. Then a dash to the window and a lowering of a string attached to a dish of dainties, or an obscure message, which was received from the window below by a faint giggle and a toss of a girlish head.

The boys threw off the heavy rules pertaining to night and study life easier than the girls. More skillful also were they in avoiding rules, so many boys made delightfully stealthy treks to the college orchard on dark evenings while they should have been perusing ponderous tomes. But this only caused the 'air lines' to be the more fruitful and the orchard caretaker to scratch his head and mutter anathemas about the college boys.

The real social life of the college was centered in the week-ends. Friday and Sunday nights were 10 o'clock nights, while Saturday evening, as an after thought of the board of trustees, was a 10:30 night. On Friday night everyone went to literary society meetings. In the early days there were four main societies: Bachelors, Crescent, Philomathean and Clifolian. Orations (not unlike Antony's), original essays, recitations, debates and music were given by the individual members for the entertainment but mostly for the edification of the other members. Afterwards if there was any time left they would disport themselves in games such as "Pig in the Parlor" and "The Miller." But perhaps these would be left for a social on Saturday night.

On Saturday night if there were no socials or lectures, perhaps

there would be a play in the theatre down in the city of Ames. If so the "special" or "specials" who wished to go would have to get permission from the preceptress or even the president. Permission was always necessary if one were to leave the campus. Permission granted, they would take the stage coach or the bus driven by "10 cent Billy" (so-called because he charged 10 cents for everything from passengers to packages or letters) and ride merrily off to the play. Maybe before the "specials" returned to the safe shelter of "Old Main" they would loiter in the shadows of the chapel and whisper sweet nothings to each other. Of course it was against the rules but—

Daytime dates or dates of any kind were unheard of in the early days. A course, however, called "campus lab," was much indulged in by the students particularly in the springtime. On the campus between the Main Building and Agricultural Hall, between the hours of 4 and 6 they played croquet, or on the two tennis courts nimbly batted balls back and forth. One year the latest senior pastime was wheeling junior ladies around in wheel-barrows. As always in "campus lab" the specials could do lots of walking, but only on the campus unless they had special permission.

Athletics, at first was the vehicle for class duels, since intercollegiate athletics did not begin until about 1890 when Iowa State played the schools in the state. Gory were the battles fought between the classes. One class would challenge the other to battle. Baseball and association football were the means of expression. The boys bought their own equipment and trained each other in the sports. Seeking more distant enemies they would often play the small towns round about in baseball. Some of the boys wishing a little extra money would play in other towns.

Speaking of battles, the greatest of all was the annual class fight between the freshmen and sophomores. This was called the "picture scrap." The clever sophomores would draw a picture, depicting the glory and the greenness of the freshman class. Then the war for its possession would be on. In '92 the battle was most thrillingly waged. The picture was lowered from North Tower. A sophomore like unto Ichabod Crane, galloped madly around the campus on horse-back bearing the picture, while a hundred freshmen tore after him. Coats were torn. The sophomore girls, not to be left out of the squabble, poured water from the windows down on the panting freshmen. But the real picture mysteriously disappeared. After the battle the sophomore girls had a sewing society and sewed up the boys' coats. The freshman girls, wishing to follow the example of the sophomore girls, made the mistake of asking the preceptress if they too couldn't form a sewing society; of course she refused. So the freshman boys had to sew their own coats.

The first college paper was the "Aurora," published monthly by the four literary societies. The reading matter was confined chiefly to learned discourses about philosophy and orations. It was writ-

ten by the intelligentsia of the clubs. The I. A. C. Student came later. It was published "fortnightly." It was called the I. A. C. Student because Iowa State College was then known as the Iowa Agricultural College.

For those dramatically inclined there were the Shakespearean plays given during commencement. There were no try-outs then. The teacher in elocution simply gave the parts to those she thought would be best able to play them.

VI.

RESEARCH



It is difficult to say just when veterinary research began in Iowa State College. Dr. Stalker did a little work in connection with his duties as State Veterinarian, but it was difficult to carry forward any systematic and definitely organized projects during those years.

Probably the first work of a serious nature was taken up by Dr. Niles when he became a member of the staff and devoted a part of his time to experiment station work.

Dr. Stalker had written a bulletin on ergotism, and his reports as State Veterinarian indicated that he was a keen observer. However, Dr. Niles was somewhat more inquisitive in regard to some of these diseases and was the first man west of Chicago to discover the actinomyces fungus in the tumors which it produces on cattle. This was in 1885, and Dr. Niles' graduation thesis was on the subject of actinomycosis. Dr. Niles also took some special work in bacteriology in 1886 under Prof. Halsted. This work was taken with special arrangement while he was acting as house surgeon.

The first tuberculin to be used in the state of Iowa was injected by Dr. Niles in the McHenry herd at Denison, Iowa. This was soon after Dr. Leonard Pearson had first used it in Pennsylvania. Dr. Pearson was the first man in America to apply tuberculin as a diagnostic agent.

I have referred elsewhere to the reports of the work they were doing with tuberculin and the preparation of mallein.

A bulletin published in 1895 (Stalker and Niles), reporting the investigation of bovine tuberculosis with special reference to its existence in Iowa, contains much interesting information, and among other statements which are given as established facts are the following:

1. Tuberculosis of the lower animals is identical with human consumption.
2. The disease may be transmitted from man to the lower animals and from the lower animals to man.
3. Milk from tuberculous cows may convey disease to the consumer.
4. Milk from tuberculous cows having non-affected udders may convey the disease.