

THE SPECULUM.

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AGRICULTURAL COLLEGE, MICH., APRIL 10, 1890.

WHOLE No. 43.

A History of the Michigan Agricultural College.

O. Chubb —

It is desirable that a history of the conception, organization, and growth of the State Agricultural College be prepared while some of the men to whose thought and work the college owes its beginnings, some of the professors who guided its early course, and many of the students who first gathered in its classes are still living to give information which will be lost if not secured before they join the majority. As a student in the college in its early days, a graduate in the second class it sent out, a member of its faculty for several years immediately after graduation, and a constant and careful observer of its development, I have had considerable opportunity to learn the beginning, growth, method and spirit of the college. As no other friend of the college has yet undertaken this historical work, which I am sure all the friends will be glad to have done, I will make the attempt.

My purpose is to record as fully as data will admit the efforts of those early friends whose writings and speeches prior to 1850 led to the work in the constitutional convention of that year, which put into the revised constitution the mandatory article requiring the legislature to establish an agricultural college; to record the selection of the site, the erection of the first buildings, the dedication of the college, and the opening of the school; to trace the gradual growth of the important departments; to show the spirit and the excellent results of the labor system; to state the large and beneficial influence of the modern spirit in developing the course of instruction which has come to be recognized in America and Europe as among the best exponents of the new education to be found

anywhere; and to illustrate the excellence of the training in work and study by showing that it sends out efficient men, more than half of whom engage in agricultural pursuits.

I shall endeavor to give full credit to those able friends who created the public opinion that made it possible for the college to exist, and worked in agricultural societies, in constitutional convention, and in legislature in its behalf; to President Joseph R. Williams who impressed his thought so strongly upon the early history of the institution; to Prof. John C. Holmes who was a most unselfish worker for the college for many years; to Dr. T. C. Abbot whose long presidency covers so much of the first period of struggle and whose wise guidance brought such large results; to Professors L. R. Fisk, Calvin Tracy, George Thurber, Manly Miles, George T. Fairchild, C. L. Ingersoll and Samuel Johnson who in different departments and periods, did large service; to Doctors Kedzie and Beal, and to Professors Cook and Carpenter who have been for many years and still remain faithful workers in the faculty; and to those strong men on the Board of Agriculture, who in the past and in recent times have wrought with foresight and patience in an educational development that is fraught with great good to the future.

In doing this work I ask the sympathy and co-operation of all the friends of the college—some of whom worked for its establishment and have witnessed its growth, some of whom have been in various ways connected with it.

The professors who have gone from it to others fields of labor, the professors now here who have for many years wrought for the welfare of the school, the students who

came at first when the college was "in the woods" who have a rich fund of experience and anecdote, all the graduates who for more than thirty years have gone from its halls—these and other friends are requested to contribute facts, experiences, anecdotes, estimates of men and of measures, anything that will be of value in the preparation of a full, accurate and impartial history. It is especially desirable to obtain full records of the work, character and influence of Joseph R. Williams, the first president; of John C. Holmes who worked for the school many years before its existence, and then as a professor aided in its evolution; and of Dr. T. C. Abbot, whose presidency of twenty-two years includes the time when some of the main departments were assuming shape under his quiet but masterly guidance, and who still lingers among us but a shadow of his former self.

All statements, letters, articles, and documents sent me will be carefully preserved, such material as is adapted to my present volume of history will be used, and then all manuscripts and documents will be bound and deposited in the college library for future reference. In these contributions from many friends there will be a most valuable history of the college, for the use of those who in future may inquire into its rise and growth, even if my own volume proves to be unsatisfactory.

All the alumni are specially requested to aid in this work. I know the hearty loyalty toward the college felt by every graduate. Our college has been to us a source of immeasurable good. The remarkable excellence of its training fitted us for the work we have been able to do, and opened our minds to those great questions of labor, of progressive agriculture, of finance, of science, and of human progress that are to-day shaping our country to higher issues. Let us see to it, so far as each is able, that a reliable history is prepared of the school that has been to us so great a friend, and that

was the pioneer in a class of schools that have already made an invaluable contribution to the educational forces of America, and are destined to constantly increasing influences as the years go by.

O. CLUTE.

April 8, 1890.

The Value of Historical Study.

W. O. HEDRICK, UNION LITERARY SOCIETY.

"History," says Lamartine, "is all things, contains all things, teaches all things; not in winged words which strike the ear without impressing the mind, but in great and striking actions." While every devotee of Clio may not be able to make so liberal a claim for his favorite, yet the benefits to be derived from a knowledge of history are often greatly under-estimated. To many persons, even among those desirous of becoming cultured, history presents no attraction; neither in the pleasure of reading it as a study in human nature, nor in the information to be gained by a more complete examination. The mere mention of history suggests, to these persons, a volume of dry details supplemented by equally dry chronological tables, and the whole matter devoid of any practical value. Though there may be some, who are constitutionally unable to interest themselves in this study, there are many others who do not do so from a lack of motives, or who have neglected it because favorable opportunities have never presented themselves for its commencement and prosecution; they remain unacquainted and undesirous of becoming acquainted with the "increasing purpose" that "through the ages runs."

History, as the record of the doings of mankind, furnishes the one link between the past and the present. It presents the best doings of mankind for our gratification and encouragement, and the worst doings for our contempt and warning. Bacon says, "Histories make men wise." As a study it

has always been of some interest to man from its presenting the only clew to his origin, and from its being the best means of foretelling the destiny of his race; but it is only within a few years that it has taken a position of importance in solving the problems of every day-life.

In the political histories of countries are lessons which should be studied by every one. The reasons for the growth and decay of nations, as pointed out by gifted men unbiassed by participation in political strife, are reliable guides for those who wish to become good citizens. No one has greater reason for studying these lessons than the American. Here, where sixty millions of people have entered into an agreement to maintain a "government of the people" and "for the people," it is no more than right that each partner in the enterprise should insist upon every other partner's becoming familiar with the terms of agreement. In order that our institutions may be perpetuated an interest must be kept alive in government and the most practicable way of doing this is to review the great and glorious events connected with its establishment; to trace its development; to explain the questions which have been discussed at different times by statesmen; to reveal the workings of political parties and their effects; and to present the whole as a living, moving lesson to those of the present time. Nor should we be content with a study of our own institutions, which are said to be but the product of the English spirit of independence. Porter tells us "The Englishman who is not proud of his country's history is degenerate and low-minded, the American who does not study it with gratitude and delight is low-minded and barbarous."

But while our interest in the State is stimulated by political history, we would be benefited by giving some attention to the lives of the principal actors therein; we would study the biographies of those great persons who have lived lives worth emulating. The

applied rule of action is nearly always more impressive than the abstract, and the story of a life moved by high motives and guided by good principles is more apt to produce a sincere belief in those principles and motives than the mere statement of them. It is said that the written lives of some men have been more valuable in helping form the characters of succeeding generations than the real lives of those men were though devoted to earnest labor for their fellow men. "Truthfulness, integrity and goodness, qualities that hang not on any man's breath," says Smiles, "are the essence of manly character;" and these qualities when found working in some one's life, create within us a profounder respect for them, and an increased desire to possess them. If it is true, that one of the greatest benefits to be derived from reading fiction is the kindly feeling, the noble aspiration produced by a "Robert Falconer" or the "Good Bishop," it is no less true that history presents as inspiring characters in the lives of Howard and Wilberforce; and to many persons incapable of sympathy with characters in fiction they have the added charm of reality.

But this power of putting ourselves in the place of another should not be despised. It is cultivated alike by history and fiction, and it tends to widen one's view of humanity; to lead him into closer sympathy with people; and to give him more tact in dealing with his fellowmen. A knowledge of men is a necessity in every business. It is alike of value to the statesman, professional man, merchant and farmer. The statesman must have knowledge of men that he may be able to tell with the slightest clew what they are apt to do under certain circumstances. The lawyer must not only be able to read his jury, but he must also be able to present to himself the arguments of his opponent that he may meet them successfully. The merchant and farmer must know men that they may not be imposed upon by sharpers, or ruined by swindlers. This knowledge of

men may be gained by experience, but the process is severe and tedious; while history, which, as some one has said "examines the motives and traces the results of conduct," affords a much easier means to the end.

As a means of general culture, history should rank with the best of other literature. The dress, manners and customs of our ancestors, the beginning and development of religions, an account of the social, moral and religious questions discussed in society by our fore-parents, give the student a standard by which to measure society at the present time. In order to become a conversationalist, and so be an agreeable member of society, a general knowledge of history is needed; for in nearly all society, worthy the name allusions to some common historical happenings are apt to be made, which, unless the hearer is familiar with history, he will be unable to understand.

As in nearly all other pursuits, the value received from historical study will be proportionate to the labor expended, and while all cannot expect to become masters, yet with the hosts of newspapers furnishing, not only the history of the present but in biographies and short sketches the story of the past, and with the multitude of good books devoted to the subject, this useful acquirement is within the reach of all.

Immigration.

F. B. MUMFORD, OLYMPIC SOCIETY.

There seems to be a general belief in our country, that "God takes care of children, fools, and the United States." The unexampled prosperity of a century's existence has produced a dangerous political optimism. Our statesmen have disregarded the old adage that "prevention is better than cure," and only have considered the perils of our civilization, after they have forced themselves into notice by active operation against our government.

One of the most serious questions that has come before our statesmen in recent times, is that of foreign immigration—serious because it complicates many other already complicated questions and materially affects our intellectual, moral and political system.

During the ninety years preceding 1880, 10,000,000 foreigners made their homes in the United States. Since 1880 the incoming hordes have rapidly increased, until at the present time they are coming at the rate of over 800,000 per year. So rapid is the increase, that at a low estimate, our foreign population will exceed 40,000,000 before the close of the nineteenth century. A study of the causes of this wonderful migration leads us to believe that unless this "human tidal wave" is in some manner checked our country will very soon feel the effects of its pernicious influences.

First among the causes of this migration, we would mention the wonderful inducements offered by the United States. Previous to 1880, our government encouraged immigration in many ways. In March 1870, the Chief of the Bureau of Immigration issued a pamphlet very forcibly setting forth the advantages of various sections of our country. This official document gave a new impetus to home-seekers from across the Atlantic. It was not till 1880 that the government began to question the desirability of encouraging a wholesale migration to our country.

There is a popular belief in all foreign countries that the United States is the land of promise for all poor people,—a land "flowing with milk and honey." A comparison of the conditions existing in European countries and our own, leads us to believe that there is not a little truth in this assumption. The average yearly consumption of meat per capita in Europe, is fifty-seven pounds, against one hundred and twenty in the United States. The average consumption of grain in Europe is seventeen pounds, against forty pounds in the United

States. To the starving people in Europe, the prospect of having enough to eat alone, with no further inducement, is a strong incentive to come among us.

Our vastness of territory, offering as it does the possibility of proprietorship in the soil is a powerful argument to the European peasant. If our population of 50,000,000, in '80, should be placed in Texas, the population would not be as dense as that of Germany. Placed in the Dakotas, the population would not be as dense as that of England and Wales. In the United States one person in seven is a land owner, and nearly fifty per cent of the proprietors own over one hundred acres each. In Scotland only one in twenty-five is a land owner; in England one in twenty; while in Ireland only one in seventy-nine is a land owner and over seventy per cent of these own less than one acre each.

The educational advantages of our country bring many of the better class of immigrants. The hope of educating their children in free schools is an object worthy great efforts. The United States spends six times as much on education as does Europe.

Every man coming to this country and attaining even moderate success is a living advertisement for the country, and often sends back money for the passage of friends and relatives.

The public debt of England increased from \$165,000,000 to \$600,000,000 during the seventeen years preceding 1884. The lands of Great Britain and Ireland in 1880, were mortgaged for fifty-eight per cent of their full value. A member of the Reichstag in Germany recently said, "the German people have but one want—money enough to get to America." The Russian government persists in a despotic policy which drives its noblest and best citizens either to Siberia or America. In Italy thirty-one per cent of the people's earnings are taken for taxes. Sixty thousand small

land owners were recently evicted for non-payment of taxes.

The government expenses of all these European countries have increased fifty per cent in ten years, their public debt has doubled in fifteen years.

Advantages of travel have increased rapidly; rates have decreased on every hand. In 1825 one hundred dollars was the cheapest steamship passage; now steerage passage may be had from Liverpool to New York for eight dollars.

What must be the effect of this rapid increase to our population? Many come to us in full sympathy with our free institutions. By far the greater part, however, are depraved; and being removed from all former associations, become more and more careless until, to them, liberty is license.

Three of our greatest evils—intemperance, mormonism and socialism—are fed by the foreign element.

About seventy-five per cent of all those engaged in the liquor traffic are foreigners. Nearly forty per cent of all our criminals are either foreign born or of foreign parentage. Mormonism makes from two thousand five hundred to three thousand proselytes annually from our European population. Josiah Strong says, "Immigration is the mother and nurse of American socialism." The great leaders of all anarchist movements are foreigners.

The political aspect of this question is one of most vital interest. The percentage of illiteracy is thirty-eight per cent greater among our foreign born than among our native born population. These ignorant foreigners are very soon given the sovereign power of franchise, and are then tools in the hands of political tricksters and designing politicians. The two great parties vie with each other in influencing the "German vote," the "Irish vote," the "Catholic vote," and already this minority has been decisive in state elections.

The tendency is to congregate in the

centers of our population, the great cities. Here political misrule is greatly aggravated by the ignorant voter who knows nothing of our laws and institutions.

Shall we prohibit foreign immigration? Can our beloved country, founded upon principles of freedom and justice to all, consistently close its doors to the strangers desiring admittance?

These aliens have come among us not only from their natural inclinations, but stimulated by glowing accounts of wealth and ease; deceived by land agents and monopolies, they have been led to migrate. This stimulus has produced so rapid an influx that assimilation has been impossible, and what might have been a peaceful stream of immigration has become an annual invasion of an army, greater than that of the allied forces at the battle of Waterloo.

It has been said that, "Intelligence and virtue are as essential to the life of a republic as are brain and heart to the life of man." We have seen that immigration lowers the general standard of intelligence and promotes some of the most pernicious growths of our civilization. If this be true, immigration is undermining our republic, and must sooner or later be checked or our existence will be endangered.

Let our legislators further restrict the importation of contract labor; prohibit imbecile and convict immigration; change our naturalization laws so that citizenship will be held as a high honor instead of a cheap convenience. Then will we be able to properly assimilate our foreign population. Thus will they no longer be the slums of our population but a blessing to our country.

Two Desperadoes of Reno.

J. L. POTTER, DELTA TAU DELTA
FRATERNITY.

At the time of the gold fever, hundreds of people, miners, speculators and Eastern farmers, alighted in the little settlements sit-

uated among the Rocky Mountains. The small village of Reno, on the Truckee Creek, in Nevada, being in the center of the gold fields and surrounded by such mining towns as Carson City, Gold Hill and Virginia City, was rendered wild by the sudden influx of population and wealth, and by visions of richest gold fields. Before gold had been discovered in that vicinity the inhabitants of the place numbered about two hundred, but now its population was swollen to four or five thousand, and this once quiet little town was now as turbid and unsettled as the river which flowed through it during the rainy season. The settlers and miners were followed by sharpers and desperadoes of all kinds who hoped to get riches in an easier way than by toiling for it honestly. Some of them intended to make money at the gaming table, others to steal it in a more direct way, and these latter would stick at nothing.

About four o'clock in the afternoon of a bright May day, as the sun was beginning to cast shadows of the rugged mountain peaks down across the valley, two individuals might be seen passing along the road leading into Reno from the northeast; and by their conversation they would at once be classed as desperate characters. The younger and darker one addressing the elder as Bill said, "Judging by the success we had in the Gold Hill job, and the extra care we have taken with this, I think we ought to get a little more spending money soon." "Yes," replied his companion, "I think we will." They passed on in silence until they were within sight of Reno's main hotel, the "Miners Cabin," when Bill proposed that he should lounge around outside while Dick went inside to see if he could by chance find out at what hour the stage, with its heavy Saturday night mail, would leave for Carson City. Dick returned shortly and they took the western road out of town. They had gone about a mile and had lost sight of the town sometime before, when

Dick again spoke and said; "The stage we want arrives at Reno about supper time and leaves at eight." "Well we couldn't wish anything better than that; we'll strike across country now and see if we cannot find the Carson City trail. It leaves in a south-easterly direction and we will have hard work to walk two or three miles over these hills and through such brush." "You're right there, Bill, we've got to hump ourselves. It's pretty rough country." "Rougher than I'd want to earn a living from." "It would be strange land that you would like to live on; at present your idea is to pick up gold on the road." "That's the easiest way of getting gold that I know of just now; but here's the road where we expect to pick some up." "Sure enough, Bill, that is it and I think the top of the hill beyond where the creek crosses the road is the place we want." They walked along the face of the hill until they came to the part of the road spoken of when one of them said;—"This is the place we want. We'll stop here a while and rest ourselves." At the place where they were the road climbed up and around the mountain and was cut out of its side. On the left was a rocky wall fifteen feet high and overhung with bushes, while on the right the ground descended clear to the river, the slope being sparsely covered by trees and shrubs with bare patches between. It was getting dusk and across the creek the opposite banks loomed up near by but faded away in the distance. On a bright mild day the spot would enrapture an artist; but at night, when broken weird shaped clouds obscured the waning moon and the wind sounded dismally as it blew in gusts through the stunted trees, one would hardly dare pass the place. The two parties who were there would rather have been in a more cheerful place but they did not have to wait very long. "There! Did you hear them, Bill? They are coming down to the creek back there!" "Here they are! now Dick!" "Halt, hands up!" "Come down off there." The driver did as

he was told, the three philosophical westerners stepped out beside him. Then Dick pulled out the mail, ripped open the pouch, and took out the little leathern sacks filled with gold dust. He secured all the gold he could carry for even a short distance, and so did not trouble the driver nor the passengers but started up the road with what he had and in a minute appeared on the bank above. "Gentlemen, just stay as you are. Bill, I'll watch them while you go up the road a piece." As soon as Bill was out of sight the former occupants of the stage started on, having resumed their places at command. They did not know how near this Bill might be to them, and they had no great personal interest in stopping, so they drove right on. Bill and Dick carried the gold dust a short way up the mountain and hiding it under a rocky ledge, started back for Reno.

As they got into the town they turned down a side street and came to a fine residence avenue and now their manner completely changed. They had been walking along in silence but they began talking. The one who had been addressed as Bill, started to cross the street in front of one of the finest houses and said "Good night, Roy." He was answered "Good night, Freddie. I'm tired, ain't you?" "Yes I'll see you in the morning." "All right, good night." Then they entered their homes as the sun was taking his last glimpse for the day at the little town of Reno, his mellow light spreading a golden beauty over the whole valley. All their dime-novel acting was forgotten, and almost before the sun's last beams had left the mountain tops, the one-time desperadoes had eaten the suppers set for them by their mothers and with a mother's good night kiss and a "God bless you, darling," had each been snugly tucked in their little beds. They were now no longer desperadoes but two curly-headed little darlings sleeping peacefully the healthful sleep of youth and innocence.

SCIENTIFIC.

Natural History Society.

The first meeting of the Natural History Society for the spring term was held March 14th with Vice-president C. F. Baker presiding.

Mr. C. B. Cook exhibited a pair of very rare queer looking birds which he had recently stuffed for the museum. "They are commonly called snake-birds or water turkeys. They are birds of singular appearance, somewhat like a comorant but much more slightly built, and with an exceedingly long, slender neck, and a small constricted head, that seems to taper directly into the bill. The head, neck and bill resemble those of a heron. The legs are short and are placed rather far back, but the birds perch with ease. Unlike most of the order, they are not maritime, but shun the sea-coast, and dwell in the most impenetrable swamps of warm countries. They fly swiftly and dive with amazing ease and celerity. They are timid and vigilant and when alarmed drop from their perch into the water below, noiselessly and with scarcely a ripple of the surface and swim beneath the surface to a safe distance before re-appearing. When surprised on the water they have the curious habit of sinking quietly backward like grebes, and they often swim with the body submerged, only the head and neck in sight, looking like some strange kind of sea serpent. There are only four species known, one in Africa, one in Southern Asia, one in Australia and one, *Plotus Anhinga*, in the South Atlantic and Gulf states and along the Mississippi as far north as Illinois."

Mr. G. C. Davis gave a short talk on the insects found during the winter in the two new forcing houses which have been built for the horticultural department. He had found about seventy-five species and believed that others had found enough others to make the number one hundred. The subject was

of special interest as showing the effect of heat in accelerating the development of the different orders of insects. He had found no insects belonging to the orders orthoptera or lepidoptera, although others had found several nymph grasshoppers. More species of coleoptera were found than of any other order, although many dipterons were also found. The hemipterons were confined almost entirely to plant-lice upon the various vegetables, and but few neuropterons were found. Among the injurious insects found were pea weevils, bean weevils, potato beetles, flea beetles, plant-lice and at least one species of anthomyia, probably raphani.

E. Ewing gave a talk on starches, illustrated by drawings of the granules from potatoes, corn, oats, and rice. In the discussion that followed, Mr. G. L. Teller said that several years ago, he had compared the starch of our common potato with that from a small sort native to Colorado. In the former the nucleus is near the small end of the granule, while in the latter it is near the large end. He said it was a curious fact that the starch granules of different varieties of potatoes grown on the same field, varied so much that the varieties could be easily distinguished by simply comparing the starches.

Mr. C. F. Baker read a paper upon the Evening Grosbeak, a bird which is usually very rare in Michigan but which has been very common the past winter all over the southern part of the state. Several stuffed specimens were exhibited. They are about the size of a robin. The general color is sordid yellow overlaid with a sooty olive shade, which is deepest on the fore parts. The wings and tail are black except several inner secondaries and the inner half of the greater coverts which are white. Prof. Cook had received heads of this beautiful bird and also of the red-polled linnet. They had been offered to town clerks who had paid bounties on them on the supposition that they were sparrows.

Mr. Toumey exhibited several pieces of wood to illustrate the fact that a piece of soft wood may be bruised and remain compressed until moistened when it will resume its original shape. He exhibited a piece of 4x4 scantling which had a bunch on one side that had raised upon it after it had been sawed. He also exhibited a puzzle to illustrate the same fact. It consisted of a small board through which a hole about one inch square had been cut. Through this hole he had forced two sticks with knobs on the ends larger than the hole.

Dr. J. W. Beal exhibited the hind foot of a white rabbit, and called attention to the thick hair and wide-spread toes which are so admirably adapted to support the animal upon the snow.

He also exhibited a pod from a honey locust tree to illustrate the manner in which the seeds are distributed. The pods are long and flat, and are usually curved and bent into various shapes. The one shown was spiral in shape and was easily driven across the rostrum with a small fan. It was found about twenty rods from the tree on which it grew, having been driven that distance by the wind.

Mr. J. H. Mullett gave a short talk on the "hog-nosed snakes" or "blowing vipers." He exhibited two nicely stuffed specimens which he had recently received from Virginia, where they had been plowed up during the winter. They are about the size of a massasauga, and are generally thought to be poisonous. They are, however, sluggish and perfectly harmless. They have been found in Michigan but are very rare. They live in sand in which they remain buried most of the time.

Twenty Years.

Nature, for November 7, presents us with an article with the above title which all lovers of science should read. It is an epitome of the work done in the various branches of science during the last twenty years, and

calls especial attention to those results which "will probably appear to posterity to be the most salient characteristics of the last two decades." The article is replete with valuable and interesting information, but space prevents our giving more than a few brief abstracts: "In the physical sciences, the enormous development of the atomic theory, and the establishment of a connection between the theories of light and electricity, are, perhaps, the two main achievements of the years we are considering." "The theory suggested by Maxwell, that light is an electro-magnetic phenomenon, is taking form and shape, and the experiments of Hertz, together with the recent work of Lodge, J. J. Thompson and Glazebrook, furnish complete proof of its fundamental hypothesis. The great development of the technical applications of electricity has stimulated the public interest in this science and has necessitated a more detailed study of magnetism and of the laws of periodic currents."

In the biological sciences, the progress during the last twenty years has consisted chiefly in the firm establishment of the Darwinian doctrine, and the application of it and of its subordinate conceptions in a variety of fields of investigation. The precise methods of microscopic study by means of section-cutting—due originally to Stricker, of Vienna—have within the last twenty years made the study of cell structure and cell activity as essential a part of morphology as it had already become of physiology. These, and the frank adoption of the theory of descent, have swept away old ideas of classification and affinities and have relegated the Ascidian "polyps" of old days to the group of Vertebrata, and the sponges to the Cœlenterates. The discovery of the phenomena of karyokinesis and their relation to fertilization will be reckoned hereafter as one of the most, if not the most, important biological discoveries of the last twenty years.

Apart from Darwinism, the most remarkable development of biological studies is

undoubtedly the sudden rise and gigantic progress of our knowledge of the bacteria. It is within this time that the microscope and precise methods of culture have been applied to the study of the "vibriones" or "microbes," and the so-called bacteriology established. We now know through the labors of Toussaint, Chauveau, Pasteur and Koch, of a number of diseases which are definitely caused by bacteria, and we have also learned from Pasteur how to control the attacks of some of these dangerous parasites."

The Museum.

Our museum, though not large, is really one of the best working museums in the west. Like most of our institutions it has been of slow growth, developing as the needs of the college urged. Nearly everything in it is practically useful and is brought into the class-room and laboratory, or referred to, during each year's course of instruction. The specimens are typical and each full of instruction. A noted professor of one of the largest universities of our country recently visited the college and remarked specially upon this feature of our collection. In building up the museum two objects have been kept steadily in view; one to make a representative collection, so that a few types might really illustrate the natural history of the world; and the other to make quite a complete collection of our own Peninsular State. During the past year the collections have grown as never before. Over \$4,000 worth of specimens, partly by purchase and partly by donation (the Hon. Senator James McMillan in this case being the donor), have been added to the zoölogical museum. A magnificent collection of lepidoptera, and a still larger and equally valuable collection of coleoptera, numbering in all nearly 50,000 specimens, have enriched the entomological cabinets through the munificence of our generous senator. Within the past few days the college has received a fine collection of orthop-

tera and several specimens of larger animals. Of the latter is a very fine grizzly bear and her cub, an alligator, an armadillo, an ant bear, a rhea, an ant-eater, several monkeys, a jaguar, two hedgehogs, a prong-horned antelope, a case of humming birds, a skeleton of the monster porpoise, a young chimpanzee and several others. All these are typical and fill out deficiencies previously existing in the collection.—*Grange Visitor.*

THE SPECULUM.

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AGRICULTURAL COLLEGE, APRIL 10, 1890.

THE SPECULUM once more greets its kind readers. The long winter interim has not failed to bear with it changes in both students and college. Spring brings the majority of the old familiar faces before us again, but it is with pain that we find some are missing. Not a few have dropped out of the race entirely, while others will return to the college at some future date. Now and then

one appears only to leave for home again. To all those who are obliged to remain away THE SPECULUM wishes a prosperous time and a speedy return to the college. The dormitories and rooms have received many repairs, and we return to find surroundings much more wholesome and cheerful.

The boys during the winter months have busied themselves in nearly every conceivable employment, but the majority have taught. From every quarter come reports of pleasant times. With her characteristic vim and determination the M. A. C. begins another summer's work.

THE seniors who were obliged to trot about the grounds correcting mistakes on the study record were just a trifle disposed to criticise the imperfect manner in which the records are being kept.

THE Board respectfully requests those who are in arrears to send in their money as soon as possible. If those whose copies are marked or who receive letters from the manager will kindly remit, THE SPECULUM will be removed from all financial cramping and the Board will return its thanks.

AT the burning of the botanical laboratory last month the college fire department and water system were tested for the first time, if we except the fumigating affair in Williams Hall two years ago. In the last trial the department has been "weighed in the balance and found wanting;" found utterly inadequate to cope with a fire of moderate size. Considering that there existed no organized company, the time consumed in getting the line of hose laid was remarkably short and there was reason to hope that the fire would be brought under control; but one insignificant stream, too weak even to break in a window pane, is but a powerless weapon with which to combat a fire in a wooden structure. The building and

a large part of its most valuable contents were destroyed.

We believe that with proper precautions, with such a system as might easily be perfected here the botanical laboratory need not have been lost. In the first place it was a serious oversight to allow one of the most inflammable buildings on the grounds to remain so far removed from any water supply. The hydrant near the chemical laboratory was found to be the nearest to the burning laboratory and from this the water was taken; but with the limited supply of hose only one line could be laid, and this, as the outcome demonstrated, fell far short of being adequate. Again, the pumps were started under a pressure of but five pounds and not till a greater head was gotten was the water thrown with anything like sufficient force. Add to all this the total lack of any organized fire company and we readily perceive what the outcome of such a fire must necessarily be. To increase the difficulties of the occasion, the water main near the library building burst and not till the water was shut out of this portion of the system could water be again thrown upon the burning building. However the emergency was quickly met, and had there been three streams instead of only one at the disposal of the improvised fire company the building might have been saved.

The lesson should be heeded. Hydrants should be placed at a suitable distance from all the principal buildings to supplement the amount of hose now on hand, or else more hose should be provided. One, two, or even three streams will not put out a fire when that fire has made headway in any of the large buildings on these grounds. Pressure should be carried in the boilers during the whole night to be in readiness for such an emergency. Lastly, no time should be lost in organizing a fire company. All this will cost money and labor but it will pay in the end.

COLLEGE NEWS.

Spring approacheth!

Four Japanese students.

College opened February 24.

Senior class numbers about 30.

Mr. Wheeler's family is here.

"Flunk!" "Fizzle!" "Fail!"

The greenhouse is very beautiful.

Half-term studies ended April 4.

Junior speeches commenced April 4.

G. C. Lawrence, '85, was here April 4.

A few felt foolish on "all-fools" day.

Go to (C.) J. Stone for a hair cut or shave.

Prof. Taft's bulletin is of special interest.

Student labor on the farm has commenced.

The boarding club constitution is being revised.

E. R. Lake, '85, a happy papa. No farce this time.

Mr. Cordley's mother and sister are living at the college.

Ten young men in the entomological laboratories this winter.

Forty-one new students this spring, compared with thirty-three a year ago.

One or two cases of measles reached here, but the disease wasn't distributed.

L. A. Clinton, '89, is assisting in work on the subject catalogue of the library.

The college has had many visitors this spring, especially during the last week or two.

Mrs. Campbell, who has been with her son in California where she has been very ill, returned recently.

Volumes added to the library are as follows: Purchased, forty-nine; bound, fourteen; unbound, sixteen.

We have assurance from the captain that base ball is more promising than the present outlook may indicate.

Two fine three-inch rifles, with equipments, from the Rock Island arsenal, are added to the military department.

A beautiful glass snake, or joint lizard, *opheosaurus ventralis*, has been obtained for the museum from Texas.

The water from the Ypsilanti city water-works supply, examined by Dr. Kedzie, is pronounced of rare excellence.

The Gæthe society, formed for the study of advanced German, is in progress, under the leadership of Prof. Anderson.

Colonel McCreery, of the State Board, has accepted the position of consul to Valparaiso. He will sail to his new work April 19.

Prof. B. F. D'Ooge of the Normal, and Prof. John Petrie of the Brockway Center schools, were on the grounds the 2d inst.

It is reported that about forty of the students and teachers of the college attended the play of Macbeth at Lansing the 19th ult.

A number of new drawing desks are being made in the shops. They are from patterns made here, and are neat and convenient.

Considerable painting and calcimining has been done in the halls, and they present a very neat and pleasant appearance.

Lucy Clute, who injured her knee severely last fall while playing tennis, has almost fully recovered, and is now able to attend classes.

T. T. Lyon of South Haven is to have charge of the testing of large and small fruits there, in connection with the experiment station.

Prof. Chas. F. Emerick, a graduate of Wittenberg College, Ohio, is here taking a post graduate course in agriculture and horticulture.

Miss Anna Dewey of Cambridge, Lenawee county, was the guest of her uncle, L. H. Dewey, of the botanical department, not long since.

The children of the college (*i. e.*, those quite young in years) are taught by Miss Barnard in Prof. Carpenter's old class room in the Mechanical building.

The Y. M. C. A. sent four delegates—V. H. Lowe, K. L. Butterfield, Wm. Petrie and J. R. McColl—to a district conference held at Albion, March 14-16.

Prof. Carpenter has his new quarters in the old agricultural class-room in College hall. His class-room, office, ante room, and dark-closet are spacious and convenient.

N. D. Corbin, a graduate of the University, and now taking a post-graduate course of his *Alma Mater*, is instructing the seniors here in political economy and constitutional law.

It is hoped our lawns will be in better condition this summer than the dry weather permitted last year. If fertilizing and harrowing will do any good the present prospects are favorable.

Wire is nearly ready to put up to utilize the dynamo made in the shops last fall, in lighting the library as well as the shops. The President's and Secretary's offices will be electrically illuminated.

Is co-education practicable? The more than usual number of young people remaining here this winter pronounce it a success for vacations any way. Where is the man that says it wouldn't work all the time?

An enjoyable event of the term was a general social gathering at the Y. M. C. A. rooms, April 3, under the auspices of the faculty ladies and the Y. M. C. A. A short and interesting literary and musical program was rendered, after which all engaged in games and kindred amusements.

James Cassidy, professor of botany and horticulture of the Colorado Agricultural College, died last November. He was one that had received an honorary degree from our college—that of Bachelor of Science.

George W. Park, '86, seedsman and florist at Parkton, Pa., and also editor and publisher of Park's Floral Magazine, is succeeding with his usual grit. He hopes to take a Master degree here in the near future.

The seniors in civil engineering will survey and calculate a side-track from the engine house to the Grand Trunk railway, and tell said railroad company if it will pay them to put in the line for the coal supply of the college.

The great rush at times for the bath house shows that this convenience is appreciated. One dollar for four years' benefit seems cheap enough, especially when many who have used the bath house say that two dollars a term wouldn't stop them using it.

Some changes have been made this winter in the holding of institutes. Instead of six, eleven were held, and the aim was to distribute them as conveniently as possible to some line of railroad to economize expense and facilitate attendance.

Plans for the erection of a \$3,000 society hall have been completed by the Union Literary Society. The State Board has given them permission to build the same on the college grounds. It will be the first building of the kind at the college.

The Board has authorized a separate steam-heating apparatus for the library building. This will be of special importance for the entomological work during the winter. College Hall is also to have a hot water heating apparatus of its own.

One very impressive occasion of the term was the special Easter services held April 6, in the chapel. The chapel was finely decorated from the greenhouse, and exercises appropriately planned for the occasion were favorably received by the large congregation that turned out.

"Oh, how lovely!" or "How perfectly exquisite!" is the ejaculation of the feminine visitor as she views the first drawer of the McMillan collection. But the English language is too destitute of adjectives as the more beautiful are presented to her already protruding eyes.

Profs. F. S. Kedzie and P. Woodworth met with a quite serious accident March 10. While driving to the college their horse became frightened near the Harrison farm and attempted a runaway. Both were thrown to the ground, the fracture of his collar bone being the misfortune of Prof. Kedzie.

The seniors of the agricultural course are making, under the direction of Prof. Grange, accurate casts or models of the teeth of cattle and horses. These are made from nature and would be of value to any one interested in this line of business. They are also making careful dissections to exhibit at the State fair next fall.

The forcing houses have been very successful this winter. Of the two kinds of heating the hot water method has thus far proved more satisfactory, keeping a higher and more even temperature, and with less coal. Winter lettuce and radishes were fine and the tomato and cabbage plants are excellent.

March 28 the faculty elected the commencement orators from the senior class. They are as follows: Warren Babcock, Jr., of Milan; Miss Jessie Beal, of the Agricultural College; Howard J. Hall, of Oviatt; Horace Z. Ward, of Ada; A. Latcha Waters, of Spring Lake; Frank G. Clark, of Lansing; Joseph H. Freeman, of Grand Rapids, and Jay R. McColl, of Delhi Mills. The last three represent the mechanical course.

Those who were fortunate enough to have business at the college through the vacation look back upon a very pleasant winter. About thirty young people gathered every Friday evening at the home of Secretary and Mrs. Reynolds and had a more enjoyable time each week. On February 14 the weekly social was turned into a valentine party, and many wonderful productions of Cupid's art was the result. The final evening of the winter was attended in fancy dress. The hearty appreciation of the hospitality and kindness of Mr. and Mrs. Reynolds was attested by the appearance of two handsome pieces of silverware appropriately inscribed. Miss Beal, Miss Clute, and Miss Cook also entertained the young people very agreeably during the winter.

What did our professors do during the winter? President Clute at the end of last term visited Washington, and attended the meeting of Agricultural College Experiment Stations held there. He attended all of the State institutes, taking an active part in them, setting forth particularly the new education. The rest of the winter he spent on his history of the college, a volume to contain a detailed account of the rise and progress of the Michigan Agricultural College from its beginning. It will undoubtedly be of much value to all interested in the institution.—Prof. Carpenter spent part of the winter at Cornell and the rest at home with some experiment and study.—Prof. Cook attended the meeting at Washington. He also attended the meeting of Economic Entomologists, of which he is the vice president. This meeting is reported especially interesting, and related mostly to economic work. Prof. Cook, after spending two or three weeks in New York, taking an active part in the institutes there, visited the National Bee-Keeper's Association at Toronto, where he gave an address on the "Alimentary System of the Bee."—Prof. Durand with Mrs. Durand spent the winter in the East, where he intended to pursue his studies, but ill health prevented the carrying out of his plans. He was able, however, to resume his work shortly after the beginning of the term. Mrs. Durand, who had been quite sick, returned April 3.—Dr. Kedzie and wife spent part of the winter in Washington and the rest at the college.—Prof. Anderson was at the college all winter. His father who was staying with him and who was

quite infirm, died quite suddenly, though not unexpectedly, during the winter.—Dr. Beal has been engaged with the second volume of his work on grasses. He attended and lectured at ten of the institutes.—Prof. Davenport, after attending the meeting at Washington, visited Prof. Shelton, of the Kansas Agricultural College, and from here he took a tour through the West, inspecting many noted herds of cattle. He also took active part in all the State institutes.—Prof. Taft remained at the college, except a brief visit with Mrs. Taft to his old home in Massachusetts. He lectured considerably during the winter.—Secretary and Mrs. Reynolds added much to the social enjoyment at the college in entertaining those who stayed here during the winter.—Lieut. Simpson and wife spent the winter at Mrs. Simpson's old home in Ohio.—Dr. Grange spent part of the winter in the university at Ann Arbor. The most of the vacation he spent in his duties as State Veterinarian, making one or two extended trips to Illinois and Indiana to study diseases.

A FRAGMENT OF A WINTER'S DIARY.

Nov. 20 (?)—Wheeler and his herbarium arrived at the college.

Nov. 27.—Everyone eats turkey or picks chicken bones.

Dr. Kedzie and wife and Prof. Cook spend the first month or more of the vacation in Washington and other eastern cities, and Prof. Davenport, after a short visit to Washington, takes his wife and follows Horace Greeley's advice.

Jan. 7.—Prof. Holdsworth begins to sing—

“‘Tis now I am fond of the baby,
For I am a happy papa.”

Jan. 8.—Prof. H. subscribes for the *Youth's Companion*.

Jan. 11.—The menagerie end of the “Greatest Show on Earth” arrives at the zoological laboratory.

Jan 11.—The entomological department threshes the Chapman bee plant. Ask Cordley what was the matter with it.

Jan. 11.—Hall and Dewey, a la straw hat and summer necktie, go boating on the river.

Jan. 14.—Dr. Beal teaches his horse to like the children. Quite a circus.

Burning of the Botanical Building.

ON the night of Sunday, March 23, while going home from his study at about 11:30 P. M., Prof. Anderson saw a strange glow issuing from the windows in the gable of the botanical building. As he hastened toward the building he saw smoke rising and a

tongue of flame darting from the roof. Every creature but him on the college campus appeared to be asleep, but the relentless fire was awake. The chimney had burned out the evening before, and, as a careful investigation had been made and no fire had been discovered, all was supposed to be safe. At about 11 P. M. some young men returning from town had noticed a bright light in the upper window, but thinking some one was up there had given the matter no further attention. The fire must have escaped from the old smoke-pipe which ran up through the centre of the chimney, and must have kindled the woodwork near the roof; at all events here was the fire burning brightly. To rouse Messrs. Cannon and Toumey, who had rooms in the building, to hurry to the engine house and wake the fireman and engineer, to rush shouting fire to the hose-room back of Williams Hall, to break in and to drag the hose-cart to the hydrant, was the work of only a few minutes. Meanwhile Messrs. Cannon and Toumey were saving all they could at the botanical building. To Mr. Toumey belongs the credit of saving the MS. of Dr. Beal's book. Now reinforcements began to pour in; the microscopes were saved, and the herbarium down-stairs, and a good deal from the museum on the second floor, the most serious loss being Mr. Wheeler's great herbarium, the work of a quarter of a century. Although nearly everyone on the grounds turned out and worked heroically, it was evident to many from the first that the dry pine building must go. The engine fires being banked up for the night, and everybody sound asleep, there was some delay in getting pressure enough to furnish a good stream of water. When, finally, the pressure was put on a pipe burst and checked the flow. There was the building steadily burning down from the top like a great candle, and there we stood powerless to quench the flames. The loss is estimated at about \$15,000.

PERSONALS.

We desire the earnest co-operation of every person who has ever been connected with the college in trying to make this department an interesting one. Let every alumnus and every person who has been with classes here send in news to the editor of this department, often, thus making his work much easier and the department more interesting to all.

'68.

W. D. Place has been for two years county clerk of Ionia county.

'71.

E. M. Shelton, professor of agriculture at the Kansas Agricultural College, through the influence of Secretary Rusk, has received the appointment as advisor and lecturer on agriculture for the Australian government. He resigns a good position for a better one.

'73.

C. S. Crandall, for a number of years foreman of the gardens at M. A. C., has been elected professor of horticulture at Fort Collins, Col.

WITH '75.

C. H. Bemis is secretary of the County Board of Ionia county, and is rapidly working to the front.

'76.

John E. Taylor, who has been engaged in farming for a number of years at Greenville, was elected secretary of the Patrons of Industry on February 26, 1890.

'78.

C. C. Georgeson, for three years professor of agriculture in the Agricultural College at Tokio, Japan, succeeds Prof. Shelton, '71, at the Kansas Agricultural College.

'79.

C. W. Gammon, a fruit grower of Walnut Grove, California, talks as if he had been an M. A. C. hayseed once. He writes: "I feel sorry all the boys don't really know how much better California is for a home than any of the Northern States east of the Rockies. I have a lovely daughter, four years old, and a son two years old, that are hard to beat, and a wife as beautiful and good as an orange cling peach."

Harry Wilcox, formerly salesman at Marquette, Mich., is now acting in the same capacity in Baraga, Mich.

Orrin P. Gulley has succeeded Mr. Crandall as foreman of the M. A. C. gardens, and has brought his family along to help make things lively about the campus.

'81.

Delano Bros., growers and dealers in choice garden and field seeds at Lee Park, Neb., are old M. A. C. boys. William S., of '81, Fred E., of '82, and Milton, of '84, form the combination, and, as usual with M. A. C. boys, are "getting there."

'82.

A. J. Chappell is principal of a graded school at Alba, Michigan.

'84.

Dr. Fred Hodges has taken unto himself a wife. The lady is the most estimable daughter of Mr. P. A. Chesley, Waupaca, Wisconsin. The Doctor has been assistant surgeon of the Cook County Hospital at Chicago for some time, and has been remarkably successful in his profession.

C. P. Gillette stopped off at the M. A. C. on his way to Washington to attend a meeting of the directors of the experimental stations.

'85.

H. T. French, late of the M. A. C., now professor of agriculture in the Agricultural College of Oregon, is lecturer of the Corvallis grange, No. 242, and, according to the clippings of some Oregon papers, is stirring up quite an excitement in that vale of cougars and grizzlies.

E. R. Lake has been going through gymnastics that were never dreamed of by Barnum over the advent into his family of a bouncing boy. We smoke, Eddie.

Glen Lawrence was on the grounds a few days ago. He is principal of the Danville high school.

'87.

C. L. Himebaugh is studying law at Burr Oak, Mich.

C. B. Waldron and H. L. Chapin are surveying and platting additions to the city of Duluth, Minn.

J. C. Duffy spent the winter at the University of Nebraska, under Prof. Bessey, a former pupil of Dr. Beal. Mrs. Duffy will graduate with the present senior class at the Agricultural College of South Dakota.

WITH '87.

G. L. Smith is clerk in a drygoods store at Bozeman, Montana.

'88.

F. H. Hillman, professor of botany and entomology at Reno, Nevada, is getting along amazingly well lately, and seems to be contented and even enthusiastic over his work. We could not have said this for him last fall, and we guess at the cause of the great change. Miss Anderson, of the class of '90, left for Reno at the end of last fall term to become the wife of the lonely professor of botany at that place. Shake, Freddie. We extend both hands.

D. A. Smith has given up teaching and is now clerking in a book-store at Bozeman, Montana. Dale is a born politician, and he has now worked in where the smoke is thickest and the chances even.

G. D. Perrigo is teller in the First National Bank of Ft. Scott, Kansas. G. D. will be remembered as the "college chestnut cracker."

W. F. Staley for the past year has been principal of the Pewamo schools.

Geo. Stow is practicing farming on his father's farm in Clinton county, Mich.

Clark Hubbell is taking a business course in the Lansing Business College. We expect to see his smiling countenance perambulating over the M. A. C. campus quite often.

D. A. Pelton has forsaken the Lansing beauties, and is studying medicine at Ann Arbor.

H. E. Harrison is manufacturing "Harrison's Cough Syrup" at Lansing, Mich. It is warranted a sure cure for the "grippe." Send us a sample bottle, Herbie.

Miss May Harrison has resigned her position at the Harper hospital.

WITH '88.

Herbert Thurtell is taking a course in medicine at Ann Arbor.

'89.

A. L. Marhoff is assistant superintendent of the Galesburg high school.

G. J. Jenks is traveling salesman for a Detroit firm.

W. H. Van Devort is foreman of the shops at M. A. C.

B. K. Canfield is studying art in the Julian Academie of Arts, Paris. He says the Parisian society is a little too "fly" for his capacity. "Can.'s" power and genius as an artist are attested by the illustrations in the recent college *Harrows*.

E. N. Pagelson is superintendent of a machine shop at Whitings, Mich.

J. R. O'Bannon, one of the most brilliant students that has attended the M. A. C. since its founding, has been very low with softening of the brain, but at last account was some better.

R. C. Cleland is clerking for his "dad."

WITH '89.

H. J. DeGarmo has entered the married relation. We are told that Harry's wife is a perfect beauty. They visited the M. A. C. lately.

H. G. Jackson is acting in the capacity of mail carrier in Lansing.

WITH '90.

P. P. Chapman is with the Tuscaloosa Lumber Company, of Hull, Alabama.

T. R. McClure has a thousand dollar clerkship in the U. S. health office at Lansing. We wish such a hurricane would blow around our way.

M. E. Greeson is working on his father's farm near Kokomo, Ind.

Emerson Prickett is attending the Indianapolis Business College.

WITH '91.

C. H. Birch intends to spend the summer traveling for the Gaskell Literary Club.

J. Tyndall is foreman of the *Oakland County Advertiser*. We always thought there was business in "Jay."

WITH '92.

Chas. Angel is taking a medical course at Ann Arbor.

COLLEGES.

The Michigan University Base Ball Club is arranging for a series of games with New York colleges.

Over one half of the members of the Fifty-first Congress have received college educations.

The average age of the graduating classes at Harvard is twenty-three.

The American School of Athens has received the authorization of the Greek government to conduct excavations at Platea.

The English sporting journals suggest that a series of foot-ball games be arranged between picked English and American teams. The dashing American style of playing finds great favor with the English, who would be glad to welcome a team from this country.

The competitive examination for eight resident house physicians to serve at the county hospital took place March 10, 11, and 12. The result was decided as follows: Chicago Medical College with ten candidates, obtained five positions, the first, third, fourth, sixth and seventh. The Rush Medical College, with eighteen candidates, obtained three positions, the second, fifth and eighth. The College of Physicians and Surgeons and the Woman's Medical College obtained no positions.

A committee, among the members of which are Lord Salisbury, the Archbishop of Canterbury, Earl Granville, and the Vice Chancellors of Oxford, Cambridge, London and Dublin Universities, has been formed in England to collect and forward gifts of books to the Toronto University, Canada, whose library was recently destroyed by the fire which consumed the university buildings. All the universities, the British Museum, and a number of private firms and individuals have promised to assist the committee.

EXCHANGES.

The *Polytechnic* is one of the most ably edited of our exchanges. Its alumni and local departments are especially complete. However, it lacks an exchange department, which should be supplied.

The recent oratorical contests in Ohio, Wisconsin and Kansas have resulted in certain college journals giving vent to a large amount of hitherto inert spleen. If these wrathful denunciations of the winning colleges in general and the judges of the contest in particular accomplished some good end there might be an excuse for them; but they do no good, and only tend to produce ill feeling among colleges that should be friendly.

The *Baker University Index*, for April, contains two well written articles in its literary department. The article entitled "The Complement of a Man" presents some good thoughts in favor of individuality, though its denunciation of public opinion is undoubtedly put in too strong terms, not giving it credit for those things which history shows it has accomplished for man's improvement. The article on "American Poetry" is entertaining, but shows no marked literary ability. The custom of distributing advertisements among the reading matter and partic-

larly between the items of locals may be a good plan from a financial standpoint, but it certainly deteriorates the value of the reading matter. College papers should be models of journalistic ability, and the keeping of reading matter and advertisements in their proper places is a point that the *Index* as well as several other of our exchanges should adopt.

To any of our old exchanges who may have dropped THE SPECULUM from their lists during our long winter vacation, we would say that we are again in readiness to exchange comments and favors with you.

ATHLETICS.

The beginning of this term brought a rather gloomy prospect for athletics at M. A. C., reports being circulated that our best athletes of last year had deserted us, but fortunately these reports were in part false, though we still lack a battery for our ball team. Burnett and Wilson have not appeared on the scene of action as yet, though there is still a chance that one or both of them may still appear. Notwithstanding this loss to the team, the base ball organization is planning to improve its grounds by leveling the field and "skinning" the diamond. They also hope to get some players from the incoming freshman class, as there are several of its members who are anxious to have an opportunity to show their proficiency in twirling the sphere.

Foot ball has begun its usual mushroom growth and there is quite a craze for it at present; but this

season the managers propose to make a success of it by getting a trainer who can give them points in playing, and thus keep up the interest. The intention is to have enough members in the organization to make up two elevens and play practice games at every opportunity. We certainly have plenty of the raw material if it could be converted into the finished article.

The work in the gymnasium has begun in earnest, and under the direction of Mr. Polahemus is being pushed with considerable vigor. This, in connection with the fact that one of the boarding clubs is to be converted into a training club for the purpose of giving the boys proper food for the best development of wind and muscle, ought to bring forth good results. Some of the boys object to going into the training club, but when they consider the advantages to be obtained from even a short course of training to both health and strength, they should be willing, for the advantages offered, to make the exchange.

The field day this year will probably be held at Albion, as they want it and our college has declared in their favor. Our field day manager this year is W. W. Morrison, who will represent us to the best of his ability, and, we believe, will bring honor to the college by his work.

As manager of sports at the college, C. F. Ritterger was elected, and, as he is a hustler in all matters pertaining to athletics, he will probably create a great boom in that line.

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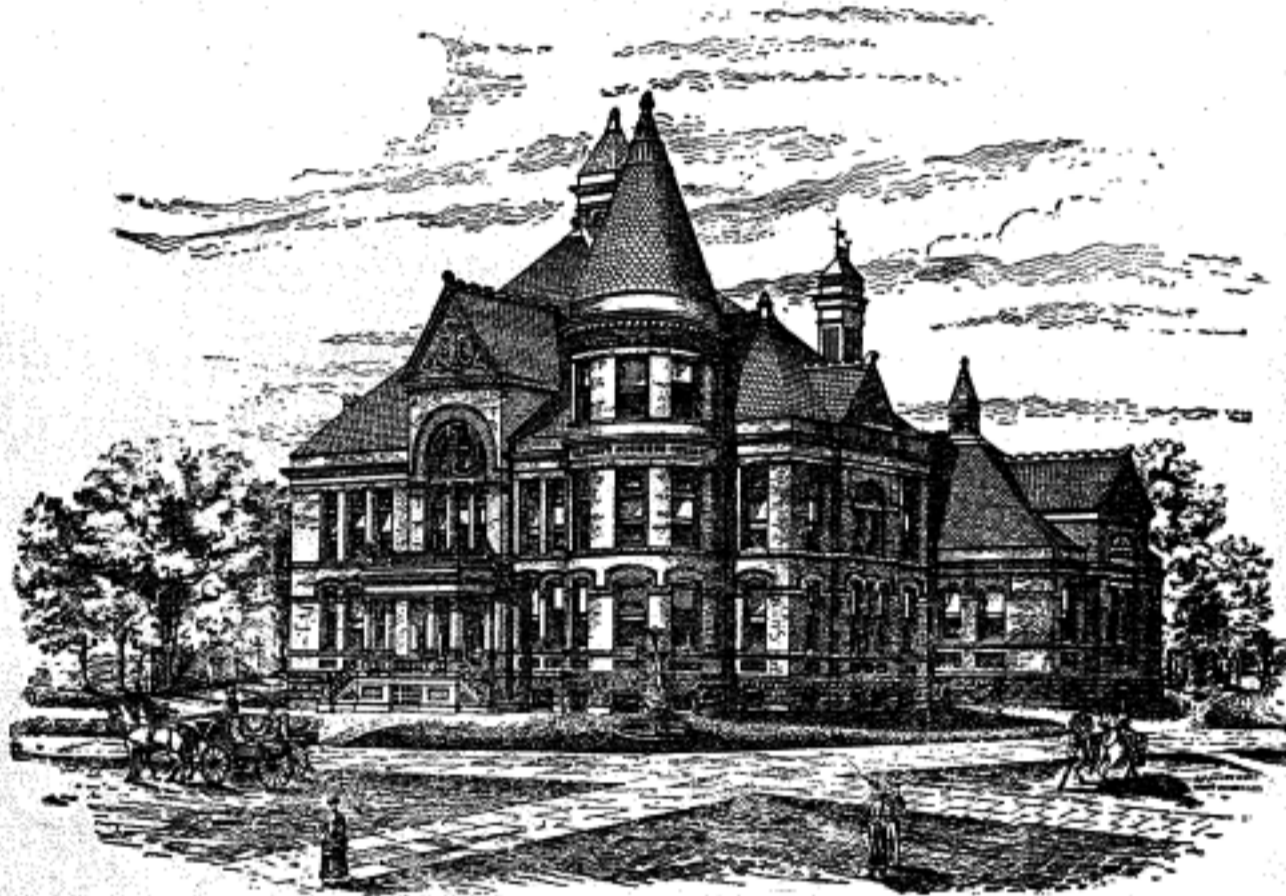
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