

THE SPECULUM.

VOLUME IX.—No. 2.

AGRICULTURAL COLLEGE, MICH., SEPT. 10, 1889.

WHOLE NO. 40.

Professor of English Literature, Michigan Agricultural College.

The board of the Michigan Agricultural College has called to the Chair of English Literature at that institution Edward P. Anderson, A. M., Ph. D., formerly Professor of English Literature in the Ohio University.

Prof. Anderson can boast of being a Michigan boy, since he spent his childhood and early youth at Kalamazoo in the lower, and at Marquette in the upper, peninsula; and received his degrees at Ann Arbor. He was prepared for college mostly by private lessons from his father, the Rev. E. C. Anderson, D. D., formerly a college professor and president, both in Michigan and Oregon.

On account of his somewhat irregular preparation he found himself on entering the university considerably behind his classmates in many things, but in the four years that he was then obliged to spend before receiving his degree in the classical course, he not only made up all deficiencies, but also taught a four months' school and did a year's work ahead of his class, so that he was graduated with the degrees both of A. B. and A. M., while he also received a teacher's diploma in languages.

After teaching a year in the State Normal School, he traveled in Europe, and in 1880 went to study for some time in Paris, with a view to mastering the French language and accent. A year later he returned to Michigan University to perfect himself in those branches of science not ordinarily pursued by classical students. In the course of the year, receiving a call to the Chair of Latin, French and English Literature, in McMinnville College, Oregon, he accepted.

He held this chair two years and then returned a second time to his Alma Mater to work two years for his doctor's degree, and to fill temporarily while pursuing his studies at the university a position in the Ann Arbor high school. His thesis for the doctorate was a detailed literary comparison of Virgil and Theocritus. After being honored in 1886 with the degree of Doctor of Philosophy, he consented to hold for one year the Chair of Modern Languages in Michigan Military Academy, in place of a friend who wished to make a bridal tour in Europe.

Since that time the doctor has devoted himself almost wholly to literary work, translating several volumes for the series of "Great French Writers," now being published by A. C. McClurg & Co., of Chicago, writing articles for the *Chicago Dial* and for the *Journal of Pedagogy*, etc., and filling with evident satisfaction to all concerned, the Chair of English Literature in the Ohio University.

Having learned what it is to endure even honorable exile from the pleasant Peninsular State, Prof. Anderson will, as we hope, gladly return to what he must regard as home.

The Power of Circumstances.

C. F. RITTINGER, PHI DELTA THETA FRATERNITY.

To a greater extent than most of us are willing to admit, we are the victims of circumstances.

It may reasonably be doubted whether, were there a universal exchange of individualities in this world, the general character of humanity would be materially changed. In other words whether, if we were put in the

same position, under the same conditions, and surrounded by the same circumstances that resulted in sending some acquaintance to the state prison, we would not to-day be, in striped clothes, dressing stone for our State.

We owe most of our ideas in politics, to which we hold so tenaciously; our belief in certain religious creeds, if we have any; our standard of morals, and nearly all other peculiarities we have, to circumstances which have grafted them so firmly upon us that we are often bold to believe we are the very authors of those ideas.

Our fathers and grandfathers assailed slavery. They thought it to be debasing and criminal, and held that no sensible man could conscientiously tolerate it. The slaveholders regarded it as perfectly legitimate, and not only proper but beneficial to both whites and blacks. What caused this difference in opinions? Circumstances, and nothing else. The northerners were taught from their very youth to abhor involuntary servitude as wholly unchristian and uncivilized. The southerner was reared with the negro and taught that his first duty was to master the slave. The most turbulent abolitionist would, from his very temperament, have been the rankest slaveholder in the South; and the most zealous advocate of slavery in due time would have been the principal anti-slavery agitator in the great conventions of the North, had their circumstances been reversed.

It is the same in religion. The Catholic regards the Protestant as having almost no religion, while the Protestant considers the Catholic religion as being one full of the grossest errors. England and Ireland are side by side, ruled by the same queen. The Englishman, born of Protestant parents and surrounded by Protestant influences, is a Protestant. The Irish are Catholics for exactly similar reasons and no others. Circumstances and not choice makes this great difference. From the very fact of the constant increase of Catholics we can not doubt

that were we born of Catholic parents and surrounded by Catholics we would be Catholics, and not ten in one thousand would be Catholics were they surrounded by Protestant influences.

The influence of circumstances is still more evident in the social relations. Two children play together, one the son of a wealthy, influential man, well known in social circles; the other is the son of a poor and perhaps ignorant workman. Soon the one begins to look down upon the other, and they can associate as equals no longer. What caused the difference? Circumstances over which neither had the least control. The one soon becomes proud of his position—proud of his circumstances—and forsakes his humble companion.

Do surroundings have less influence upon morals? Many a boy is born in the city, of drunken parents, and trained to the observation and practice of vice from his earliest moment. At twenty years of age he is a murderer. Another boy is born in a quiet country home with Christian parents. His whole training is in the direction of virtue, and he becomes the possessor of a lofty character and Christian purpose. Can we then be surprised when at the age of twenty-five we find him by the side of the convict murderer endeavoring to prepare him for the change of worlds which will come with his execution? What but the circumstances in which these boys were grown caused this great difference?

The desire for knowledge is almost entirely due to favorable surroundings. How could the last young man instanced help, when coming daily in contact with the beauties of nature, instead of the billiard table and wine glasses of the gilded saloon, directing his attention to nature as a study? A person observes and to a large extent educates himself from his surroundings.

Circumstances then press upon us heavily, and deftly turn us this way or that. We are none of us free from their influence.

We should not then judge too harshly a person whom we believed to have been upright and who has fallen from his integrity. It is not always for us to know the inmost conditions which occasion such changes.

As a twig planted carefully in some rich spot of mother earth, visited by abundant sunshine and moistened by an abundance of refreshing showers, grows to be a bold, proud, symmetrical tree, so a human being, born in and surrounded by those circumstances which are conducive to his best development, becomes a dauntless, stately, stalwart, upright man. But if there comes a time when the rich earth is displaced by sterile sand, and the sunshine and rain are withheld from the tree—it falls. So with man. Reverse those circumstances which raise him, and he falls prostrate, abhorred by many and pitied by few.

Sleeping Bear Point.

CHARLES FERRIS, UNION LITERARY SOCIETY.

During the months of November and December, when the great lakes are lashed into fury by the storms, hardly a year passes that the State papers do not announce a shipwreck on Sleeping Bear Point. To the imagination this dangerous point looms up as a rocky promontory inhabited only by the waterfowls. A visit to this coast shows the "Bear" as it is called by the inhabitants of that region, to be a sand bluff seven miles long, from one to two miles wide and four hundred feet high, extending far out into Lake Michigan. Viewed from the deck of a vessel, a wooded portion near the centre appears as a massive bear sleeping, hence the name. There is a superstition existing among the Indians concerning this clump of hemlocks. They believe that the evil spirit lives on the highest point of the bluff among those trees, and they cannot be induced to stay over night on the coast.

With the true spirit of Alpine climbers

we decide to ascend this sand mountain. Accordingly we anchor our pleasure boat near an old wood dock and walk along the narrow beach to find a suitable place to begin our exploration. At our feet the waves wash the smooth pebbles. We stoop occasionally to pick up a rare petoskey, or perhaps, if very successful, we find an agate. We reach a suitable place and start upon a straight course for the summit. The lake breeze is invigorating and we advance rapidly. Each step we take starts scores of small rocks that go bounding down the hillside and leap into the lake. Soon, however, all of our party fall back exhausted, for the hill is steeper than it seems. We change our course and again begin the ascent, but this time diagonally. By following in the leader's footsteps the soft sand becomes packed and the rear man makes an easy ascent. We are surprised to find plant life even on this sand desert, but the plants have very marked peculiarities. Grasses of coarse varieties are found, along with modest flowering plants with pale colors. As we advance we pass shrubs and even small trees that have found nourishment where none seemed to exist. Half way up there is a stratum of clay, which, owing to its texture, remains firm. We are glad to climb upon this friendly shelf and rest. Below already the wind has blown our tracks full of sand. A close examination of the surface shows the fine particles everywhere in constant motion. In places where the sand is most firm we watch the formation of real pictures similar to the famed pictures found upon the rocks in the upper peninsula. All are now rested and we resume our climbing toward the summit. Now appears a new plant, the sand cherry. It grows as a small shrub only a few inches high. The abundance of white blossoms foretells an abundant crop of fruit in the season. The rocks draw special attention, for the absence of fossil remains. Except the few boulders that are so ready to roll to the lake all the rocks have the same general

appearance—light gray. As we near the summit we pass skeletons of massive cedars with only their tops uncovered. They have been so long buried in the dry sand that their limbs and trunks seem preserved against decay. Standing upon the summit of the "Bear" an interesting, yet desolate, sight presents itself. Vegetation has almost disappeared, save a few hardy grasses. The wind has been the active force. At our feet it has formed a great ravine and piled the sand farther to the east. Not far away, by curious eddying motions it has formed a basin half a mile across and many feet deep. Still unsatisfied, we climb the highest point of the "Bear" that commands a view of the eastern slope and watch the process of burying trees alive as it is steadily goes on under the action of the wind. Hemlocks, cedars and pines are being slowly covered. Some have only a few top branches still exposed. Others, the giants among their fellows, still defy the elements with many feet of their height. We look with admiration upon the mighty work that is being done. The great sand bluff upon which we stand is being carried steadily to the eastward under the continual action of the wind.

From our elevated position we have a fine view of the surrounding country and Lake Michigan. The latter is dotted here and there with many a white sail, or floating over it in separate dark clouds is the smoke of the lake steamers. If the day is bright, down near the shore in the shallows are seen the half broken ribs of an old wreck, a forcible reminder of the fearful storms that sometimes rage over the quiet lake.

Fifteen miles to the northwest are the Manitous. Indistinctly on the south island can be traced the outlines of the lighthouse. Northeast of the "Bear" almost hidden among the hills and pine forests, are several small hamlets hardly deserving to be called villages. Directly to the east, and apparently but a short distance from the base of the sand bluff lies Glen Lake, a beautiful

sheet of water extending five miles before us. Beyond, as far as the eye can distinguish, grow the hardwood forests of northern Michigan, broken only by the few clearings which the hardy settlers have made.

After enjoying these scenes till all are satisfied, we descend the hillside to the beach. How simple the process, compared with the ascent! In the language of a tourist: "Our tracks all follow us to the foot of the hill." We gather a few more specimens of rocks, and admire the glories of the sun as it disappears behind the quiet lake.

The Resemblance Between Animate and Inanimate Nature.

H. B. WINEGAR, OLYMPIC SOCIETY.

There is nothing among the recent disclosures of the microscope so surprising as the delicate adjustment of rocks to their environments. We are accustomed to look upon the masses of our mountains as the very type of what is stationary and eternal, but in reality, they are vast chemical laboratories full of activity and constant change. Life in our planets, like life in ourselves, rests fundamentally on chemical action. The chemical processes which represent the physiology of the earth's crust have long been suspected, but it is only recently that the microscope has revealed the exact details of these processes, and so closely do they resemble the chemical changes of organic matter that some of the most distinguished geologists have attempted to throw aside entirely the distinctions between crystallized and living matter.

This idea will, of course, meet with much opposition, but according to Webster's definition of life, we cannot draw the line between inorganic and organic matter, and say that life is entirely on the organic side. If we regard life as unceasing change, then the whole substance of the earth possesses life. In the laboratories of the earth's crust

physical changes and chemical operations take place, giving rise to new structures almost too minute to be traced by the microscope; yet these structures have revealed wonderful mysteries to the scientist. Not only do the component minerals assume a form as directly inherent in their nature as that of a plant; but if the surrounding conditions become unfavorable, they change to other forms and often leave written in the rocks the records of their histories. The only real difference between the change or growth of rocks and plants seems to be in the relative rapidity of action, and as far as botanists and geologists can judge, the phenomena presented by the organic and mineral worlds differ in degree rather than in kind.

In regard to the chemistry of rocks and plants, there is a close resemblance; one being the chemistry of carbon and the other that of silicon. Both of these elements are closely allied and have the common property of forming extremely complex compounds, nearly all of which are capable of being changed by external surroundings.

The fact that numerous forms of organic life, both mineral and vegetable, constantly make their appearance wherever favorable conditions exist—notwithstanding the absence of all evidence of pre-existing germs—has given rise to the opinion that microscopic forms of life are constantly coming into existence under the operations of the ordinary powers of nature. This theory is sustained by the fact that minute organisms of very low type, such as bacteria, vibriones and monads, make their appearance without the least possibility of their being derived from organic matter. For instance, bacteria have been found to make their appearance in infusions which have not only been boiled before sealing up, but which, after being sealed, have been kept at a boiling heat for many hours. Such forms appear also in solutions containing nothing of organic origin whatever, but which are composed en-

tirely of certain salts of soda and ammonia.

It is not at all probable, however, that inorganic matter changes directly into organic, but the change is evidently produced by successive steps. This, we are well warranted in believing by the experiences of chemists. Organic matters are produced in the laboratory by what we might call artificial evolution. Chemists find themselves unable to form those complex combinations directly from their elements, but they succeed in forming them indirectly by successive modifications of simpler combinations.

When we see that the general laws of evolution as they are exemplified in known organisms, have been unconsciously conformed to by chemists in the artificial evolution of organic matter, we can scarcely doubt that these laws were conformed to in the natural evolution of inorganic matter, and afterwards in the evolution of the simplest organic forms.

The lowest living things are not, properly speaking, organisms at all, for they have no distinction of parts nor traces of organization. It is almost a misuse of language to call them forms of life. Their form is constantly changing and they are never twice alike, so that there is no such thing as absolute commencement of organic life. Therefore, as the study of botany and zoölogy reveals the impossibility of drawing a clear-cut line between different orders, different genera, or between plants and animals, so the study of geology reveals the impossibility of absolutely distinguishing between animate and inanimate nature.

S C I E N T I F I C.

Natural History Society.

At the meeting of the Natural History Society held August 9th, Mr. W. C. Rohnert presented the results of his observations upon the fungus causing tomato rot. Mr. Rohnert's paper was illustrated by origin-

al drawings, and proved very interesting and instructive.

Mr. V. H. Lowe then read the following paper, illustrating his remarks by frequent reference to the two beautiful specimens of birds of paradise recently obtained for the college museum:

BIRDS OF PARADISE.

Of the many beautiful things which nature presents to us, perhaps there is nothing more magnificent than the so-called birds of paradise. Many years ago, when the earliest European traders went to the Moluccas, a small group of islands just west of New Guinea, to trade, they were presented with the dried skins of birds so brilliant in color and beautiful in every way that the most fastidious were filled with admiration. The natives called them "Maunch dewata," or God's bird, and, as the skins had no feet or wings, and the traders were unable to learn more about them, they gave them the name of "Passoras de Sol," or birds of the sun. Somewhat later than this, however, a learned Dutchman by the name of John Van-Linschoton named them "Avis paradisens," or Paradise birds. This same writer claimed that no one had ever seen these birds alive, and that they lived always in the air, always turning toward the sun and never touching the earth until they died; that the eggs were laid on the shoulders of the male, where the young were hatched and reared. Later investigations, however, have proved that this learned gentleman was badly mistaken and that his statements were not founded upon facts.

The Paradiseadæ are a group of medium-sized birds, somewhat resembling the crows in shape and size, but differing from them in the wonderful development of plumage. Wallace divides this family into two groups or sub-families, Paradiseidæ and Epimachidæ, the latter being very closely related to the former, differing only in the size and shape of the bill. The legs and feet of this group are long, large and strong, the claws

being long and curved. Their chief characteristic, however, is their magnificent plumage, which, strange to say, is found only on the males. The females seem to be left almost entirely without this generous gift of nature, and, as a consequence, are very shy and modest. As a rule their dress is very plain, being of a dark brown or reddish cast, trimmed only with a few bright feathers scattered here and there. In the male this is not so. Nature seems to have bestowed upon them her richest garment and trimmed it with her grandest colors. In several species large tufts of delicate, highly colored feathers spring from beneath each wing, forming, in some cases, beautiful trains and in others magnificent fan-like projections, while the two middle feathers of the tail are very long and slender, twisted into many different shapes, and tinted with a great variety of colors. In another set these plumes spring from the head, back or shoulders, giving them a beauty unsurpassed by any other bird.

The Great Bird of Paradise, *Paradisea apoda*, is the largest species known, measuring about seventeen or eighteen inches from the beak to the tip of the tail. Wallace describes them as having the whole top of the head and neck of a delicate straw color, the feathers being short and thick, giving the whole the appearance of the finest velvet. The lower part of the throat, up to the eyes, is covered with small scaly feathers of an emerald green. From each side of the body beneath each wing springs a dense tuft of delicate plumes of an intensely yellow color, and sometimes two feet in length. These plumes can be elevated at will, nearly hiding the whole body from view. These birds are very active, and are often in motion all day long, searching for their daily supply of food, consisting chiefly of small insects, such as grasshoppers, butterflies, moths, and certain kinds of small fruits which grow in abundance on their native island. They molt during the months of

January and February, and in May are out in full plumage. The males now seem to be in their most active state, assembling early every morning in the tops of certain tall trees which have large wide-spreading branches and but few leaves. Here they go through all sorts of peculiar maneuvers and antics, stretching out their graceful necks, spreading their beautiful wings and elevating their gorgeous plumage, which is kept constantly vibrating. Between times they fly from branch to branch as if in great excitement, making the tree appear alive with brilliant meteors. This habit enables the natives to capture them with comparative ease. This is done by hiding under a small roof or covering built for the purpose among the lower branches of the tree in which they are liable to assemble. Through the top of this roof is a small hole through which the cunning native points his blunt arrow and shoots the unsuspecting bird. The blow only stuns it, however, and as it falls to the ground it is immediately captured and killed without injuring the plumage by a single drop of blood. This is kept up for some time before the birds become alarmed and fly away.

The Red Bird of Paradise, *Paradisea sanguinea*, is quite similar to the one just named, but differing from it in many ways. The side plumes are rich crimson in color instead of yellow, and only extend about three or four inches beyond the tail. The two middle tail feathers are very long and are deprived of their webs, forming two long black ribbons, extending for several inches beyond the rest of the tail. These birds are not shot with blunt arrows as in the other case, but are snared in a very ingenious way. They feed on a kind of small red fruit which grows in abundance on their native island. This fruit the natives obtain and, fastening it on a crotched stick, place it in some tree where it will be liable to be found by the birds. To this stick is fastened a cord so skillfully arranged in a noose that

the bird is almost sure to be caught if it meddles with the fruit.

It would be hard to say which of the many species of the Birds of Paradise is the most beautiful. Each has its particular peculiarity, which gives each one its own position and rank.

They live only on the islands of the Malay Archipelago, and of the eighteen species which are known and described, eleven inhabit the island of New Guinea—eight of which are confined entirely to it.

Many attempts have been made to keep this bird in confinement, but with very poor success. The Great Bird of Paradise and species closely allied to it seem to stand confinement much better than others. Before long, however, they begin to lose spirits and finally die. "Thus," as Wallace says, "it seems as if nature has taken special precaution that her choicest treasures should not become too common and thus be undervalued."

Following Mr. Lowe, Mr. J. W. O'Bannon delivered an interesting talk on "Stinking smut" in wheat, after which Mr. W. K. Brooks presented the results of some experiments to determine the food relations of the Isopoda, or common sow bug. The commonly accepted belief is that they are largely vegetable feeders. Mr. Brooks confined a number of them in a jar with nothing but fresh vegetable matter for food; but at the end of a week, on the closest examination, failed to detect any evidence of the animals having eaten any of the food provided. He then noticed that one of the bugs, which died, was speedily devoured by those remaining. Acting upon this hint he caught a number of house flies and placed them in the jar. These were soon eaten, with the exception of one which had been killed in a cyanide bottle. Mr. Brooks therefore concluded that the Isopoda are carnivorous and not herbivorous as is generally supposed, or at least that so small a portion of their food is vegetable that they can never be properly

classed as injurious. On the contrary, they do no small amount of good by devouring decaying animal matter.

Mr. L. H. Dewey then presented the following paper:

AN UNDERGROUND RIVER IN MICHIGAN.

We read of Kentucky's cave, of New York's Niagara, of Colorado's canyons and California's Yosemite, and wonder at the wonders with which nature has embellished her work. But we scarcely think of such a thing as any strange freaks of nature here in our own Michigan aside from the great inland seas with which we are surrounded. To be sure we have no Pike's Peak nor Fingal's Cave to attract the eyes and employ the pens of sight-seers, but we do have many rare exhibitions of nature's handiwork that are quite too much overlooked. One of these queer freaks of nature occurs in Alpena County, in the northeastern part of this peninsula. In this county the Upper Hamilton group of rocks comes to the surface. There is in most places such a coating of sand and gravel above the rocks that a dense pine forest was supported before the lumberman's destructive axe completed its work of desolation, and now it is only in comparatively small areas that the rocks will interfere with the plow. In some places, however, the bare gray limestone stands out with nothing but dry moss and lichens to cover its nakedness. Through this region flows the Thunder Bay River, emptying into Thunder Bay at Alpena. In the northwest part of the county the north branch of the Thunder Bay River is as large as our Red Cedar at high water in the spring, and when this is at high water it is much larger than our Red Cedar ever is. It is called the North Branch of the Thunder Bay River, but it is only in times of high water that it is properly so called, for under ordinary circumstances its waters never reach the Thunder Bay River. Except in times of high water this river flows into a basin in the rocks, forms a whirlpool and disappears.

The basin into which the water flows is about two hundred feet in diameter, and, on the side opposite which the stream enters is a sheer, rocky precipice one hundred feet down. Ordinarily the current entering this basin is swift and in a deep channel only about thirty or forty feet wide. In high water the whole order of things is reversed, and instead of flowing in there is a strong current flowing out, and around the whirlpool is a large lake more than one hundred feet deep where before was a dry, rocky bed. During the high water season logs are thrown into this lake and rafted down the river where at other times the current would be against them or they would have nothing but a dry river bottom to float on. Much more water flows out of this lake in high water than flows in at any visible inlet. It must, therefore, at this time be the outlet of a large underground current while at other times it is the inlet of such a stream. If a line be drawn in a northwesterly and southeasterly direction passing through this lake and extending thirty or forty miles in each direction it will nearly or quite intersect about seventy-five deep pits. These pits are from one hundred to two hundred feet deep, generally, nearly round in outline and with diameters varying about as the depths. The sides of all are almost perpendicular. Some have water in the bottom and some are dry. Into some of these creeks empty their waters during the entire year, but only one or two of them ever fill up and become lakes, as does the one just described. The last three of these pits to the southeast, or the last so far as is known, are in a small bay tributary to Lake Huron. The neck of water joining this bay with the lake is six or eight rods wide and only two to four feet deep. The entire bay having an area of about one hundred acres, is quite shallow except the places where these pits are. In these the water is thirty to one hundred feet deep. The water over these pits never freezes even in the coldest weather, although solid ice forms in

the lake on water of much greater depth and not protected as this is from the storms. It is due to warmth more than motion that it does not freeze, for ice forms in other parts of the bay, while over these holes immense volumes of vapor rise in the frosty air of winter. There is a regular tide in this bay during the entire year, rising about eight inches in twenty minutes and falling as much during the next twenty minutes, causing a current first in one, then in an opposite direction in the neck joining the lake. The only explanation to the entire series of phenomena seems to be that a large underground river flows from about forty or fifty miles northwest of Alpena southeast into Lake Huron. The water flowing out at Sunken Lake can be explained on the hypothesis that other creeks emptying into the pits leading to the sunken river increase its waters more than its narrow channel can accommodate below Sunken Lake, and it is forced to come above ground.

The Toronto Science Meetings.

The annual meetings of the American Association for the Advancement of Science, with the congeries of related societies that gather about it, are momentous occasions in our country's history. Science is one of our country's greatest benefactors. It is at these meetings where the great savants of science meet annually, that science proclaims her wisest and best discoveries. There was nothing very startling brought out at the late meeting. The effort of the Toronto people to make the occasion in every way pleasant and profitable was never excelled, if ever equalled. Over \$5,000 was voted by the general governments, Canadian, provincial and city, to this end:

The Society for the Promotion of Agricultural Science which met on Monday, August 26, was a great success. It was the general opinion that the papers presented on this occasion were of exceptional value. This society is limited to forty or fifty

members, and no one is admitted till he has done some excellent original work in the direction of agricultural science. Two members of our State Board of Agriculture were in attendance at this meeting. No other college or station was thus represented. To show what our college is doing we have only to state that Dr. Kedzie, late president, was succeeded by Dr. C. E. Bessey, '69. Of the forty-one members, seven are graduates of our college and three professors in it. Twelve of the papers read at the recent meeting were either from professors or alumni of this college.

Two very active associations that hold their meetings in conjunction with the A. A. S. are the Entomological and Botanical Clubs. Very valuable and interesting papers were presented before each of these clubs at the Toronto meeting. The meetings of these clubs are intensely interesting. Prof. Cook was elected president of the Entomological Club for the ensuing year. Prof. C. M. Weed of Ohio, who in the absence of the secretary was elected to fill that office, read two very interesting papers at the meeting.

A very important movement was inaugurated at Toronto. It was none other than the forming of Associations of Official Economic Entomologists and Botanists. These associations are to meet annually at the same time and place with the directors of stations. Dr. Beal was elected president of the Botanical Association, and Prof. Cook vice-president of the Entomological. These associations are formed that the work of the stations may be unified and made more effective. Each station may thus aid the others in their scientific work, and duplication of work, when not necessary, may be avoided. Such organizations are certainly great with promise.

SPECTATOR.

It is probable that the baseball nines of Harvard, Yale and Princeton will visit England upon the invitation of several wealthy English gentlemen.

THE SPECULUM.

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AGRICULTURAL COLLEGE, SEPT. 10, 1889.

WE feel that we owe our subscribers an apology for the lateness with which the August SPECULUM appeared. Our copy was taken in nearly on time, but ahead of us was the *Harrow*, and, as the financial success of that publication depends greatly upon its coming out before the end of the summer term, the SPECULUM had to wait. When it was finally ready most of the students had left for home; consequently mailing and distributing were put off till after vacation and we were quite two weeks behind.

THE editor of the Athletic Department has an (un)pleasant way of putting facts. In the last issue much of that department was crowded out. Now, it is not our intention to "crowd any department into the corner," and we shall do our level best to

put in all the matter pertaining to athletics. However, we plead "guilty" to the charge of the editor.

MUCH commendation is due the Y. M. C. A. for their little publication, the *Hand Book*. In it is found an excellent map of the college grounds—the work of one of our students. The map of the city of Lansing, that published by Waterbury & Emery, is one of the best of the city. The descriptions of the grounds, buildings, and equipments are such as to give the stranger a good general idea of our college, while the many suggestions given are worthy of consideration by all—old students as well as new.

THE difficulties by which this college has so long been kept in a state of ebullition have at length been settled. Though the pressure brought to bear upon the Board of Agriculture was great, Prof. Johnson was not reinstated as many of his friends had hoped. It is to be regretted that the investigation asked for was not granted, as a thorough exposure of facts could not fail to show the incompetency of Prof. Johnson. Right here it may be appropriate to say that that article in the August SPECULUM contains no such assumption as the *Farmer* has succeeded in discovering there. We were well aware that an investigation had been asked for and that the Board had refused to grant the same.

In the matter of removing Prof. Johnson, the Board showed themselves determined to look to the interests of the college, but with their characteristic aversion to criticism and their distrust for those who criticize them, the praiseworthiness of this action has been offset by blunders in others. Because of Prof. Pattengill's pointed and truthful editorial in the *Moderator*, the Board absurdly found him obnoxious to the college—since offensive to them. We have lost by the deposition of Prof. Pattengill one of the most efficient and popular instructors that

ever conducted a class in this college. The hearty good-will existing between him and the students is shown by the resolutions of his class to him and his reply.

The people and the college are to be congratulated for the excellent men whom the Board have placed in the vacant places, and it is to be hoped that the college will now settle down and continue the advancement inaugurated four years ago.

FOR several terms our board has steadily risen in price and, in many cases, fallen in quality. Not long ago we obtained as good, if not better, board than we are having at present at prices much below those we are paying now. But a year or so ago the price in the highest club was \$2.45 per week. Last term \$2.60 was the average price in the whole six clubs. We are now paying more for board than do students in the cities of Ypsilanti and Ann Arbor. Why is this? Is it not supposed that we obtain board at cost? Though slight unavoidable additional expenses may exist, there can be no doubt that neglect on the part of stewards and members has greatly contributed to this rise in the price of board.

Stewards do not pay the attention to buying that they should; they leave too much to the cooks. It is true that in many cases the cook has had the most experience, and, consequently, is more able to purchase advantageously; but there is no reason why the steward by devoting a little more time to club affairs may not become just as proficient. He is excused from work for this purpose. Again, the cook has not the interest in the economical outlay of club money that the steward has, or ought to have. On the other hand, the members fail to observe the rule that board shall be paid for in advance. At the middle of the term not one-half have advanced the price of two weeks' board, while the last half term's board is mostly paid during the last week. Indeed, some pay nothing at all till the close of the

term, and many are actually in debt to the steward at the beginning of a following term. This is all wrong. Without ready money with which to meet his bills at the close of the month the steward is greatly embarrassed, and is forced to purchase where he can secure long terms of credit. The poorest financier knows that this is not the cheaper way of buying goods.

If we are to have cheaper board—that is, that which costs less and is, at the same time, fair in quality—the stewards will have to attend to their affairs a little closer, and the students will have to advance their money according to requirements.

Two not inconsiderable items of expense to the student here are room rent and incidentals. Rent ranges from six to fourteen dollars per term of twelve weeks each. Add to this the five dollars that occupants of each room must pay before taking possession, and we readily see that the price paid for an unfurnished room is exorbitant. Let us consider Williams Hall for example:

This dormitory contains sixty rooms, some of which, however, are unoccupied, while some, though occupied—those used by the cooks of the several clubs—bring the college no revenue. For all these we will make allowance. Suppose we allow fifteen rooms for those occupied by the cooks, those taken up by the "dark rooms" and public parlor, and those unoccupied, leaving forty-five that are rented. Now, as taken from the college secretary's book, these rooms will net the college \$420, besides the \$225 for incidentals. Thus the students of Williams Hall pay every term \$645 for rent and incidentals.

We are told that this money goes toward paying for sweeping and lighting the halls, heating the rooms, pumping the water and doing the general repairs. Three students do the sweeping, for which they are paid one dollar per week each, or together \$36 per term. The lighting requires another dollar each week, including the student's wages,

oil and twenty cents for breakage. The sweeping and lighting costs not more than fifty dollars per term.

As for steam heating there are but about three months in the college year during which heating is necessary, and then only for six or eight hours in the twenty-four. This heating, too, has been most irregular and insufficient for the comfort of the students. The item of repairs might be made a great one, but it is not. During the last year almost nothing has been expended in general repairs upon Williams Hall. The water supply is abundant and fairly good, but the expense of this is not great.

Wells Hall, after allowing for eighteen unrented rooms, brings into the college treasury the handsome sum of \$700 per term, and the little dormitory, Abbot Hall, with its twenty-two rooms, rents for \$350 per term. Here the amount paid is in no case less than eight dollars, while for some rooms fourteen dollars is charged. Lest those unacquainted with affairs may suppose that each student pays six, eight or fourteen dollars for a room, we will say that there are generally two in a room, each paying one-half of the rent. The price is too high, nevertheless, and poor students can ill afford it.

Have we not cause for complaint when we are compelled to pay as much for a bare, unfurnished room as would rent one already furnished in most college towns? Ought the state to charge nearly as much for a 12x15 room as is paid for a good sized dwelling in most communities?

COLLEGE NEWS.

The lawns show the effects of the dry weather.

A new saw for the wood-shops is being built in the machine shops.

Can some one tell one of the Co-eds why E. A. S. goes to town so often?

Miss Grace Gerow and Miss Daisy Gerow of Chicago spent last week with Mrs. Dewey.

Mrs. Durand, who has been quite ill, resulting from a cut on the wrist, is now recovered.

Ned S. Mayo read a paper on the "Problem of Life" before the Alumni Club, September 2d.

W. K. Clute was at the College Aug 7. He is a lawyer in partnership with his father at Ionia.

Mrs. Prof. Carpenter and children have returned from a visit to her mother at Greenville, Michigan.

The base ball association elected C. F. Rittinger captain of the team, and H. L. Bunnell assistant manager.

Prof. Taft and Mr. Knapper attended the annual meeting of the Society of American Florists at Buffalo, recently.

The new students that have entered so far number eighty-six, an increase of fifteen over the same time last year.

Prof. Taft recently addressed a large farmer's picnic near Lowell, Kent county. His address was received with great favor.

A new book case has been put in the library to contain the Sunday-school library, recently given over to the general library.

Dr. Kedzie went from Toronto to Washington to attend a meeting of the Agricultural Chemists of the Experiment Stations.

J. H. Kedzie of Evanston, Ill., author of a book on "Solar Heat, Gravity and Sun Spots," spent a short time with Dr. Kedzie.

The large amounts of corrosive sublimate given out at the Chemical Laboratory indicate determination or *extermination*, or both.

Prof. Cook read before the Entomological Club of the American Association at Toronto a paper on the "New Furniture Beetle."

Dr. Beal read two papers before the Biological Section of the American Association for the Advancement of Science, held at Toronto, Aug. 27.

Prof. S. T. Maynard, Horticulturalist of the Massachusetts Agricultural College, spent two days with his brother-in-law, Prof. Taft, the week of vacation.

Prof. Cook addressed two large audiences during vacation at farmers' picnics—one at Pleasant Lake, Jackson Co., the other at Grand Ledge, Eaton Co.

Two appointments in the Military Department have been made, H. F. Hall as first lieutenant and adjutant, C. F. Rittinger as first lieutenant and quartermaster.

Mrs. Nellie Kedzie attended the American Association for the Advancement of Science at Toronto, where she read a paper on "Foods" before the Economic Section.

Much interest was given to the afternoon services of Sunday, August 11, by the singing given by a large choir which has been practicing under the leadership of Mr. Peebles.

A cordial invitation was extended to our cadets to attend the State encampment, but it was impossible for them to do so. Lieut. Simpson and a few others made it a short visit.

Several additions have been made to the band from the Freshman class, among which is a clarinet. The most of the band is of under-classmen, and promises to be a permanent organization.

W. Paddock killed a massassauga across the river back of the greenhouse. It measured about twenty inches, and had seven rattles. It was preserved by Prof. Cook and is now in the museum.

Dr. Kedzie presided over the meeting of the Association for the Promotion of Agricultural Science, at Toronto. He has been president for two years, and read three papers before the Association.

Hon. C. W. Garfield, of the State Board of Agriculture, was at the College the 29th ult. He was on the way to Detroit to make arrangements for a place in the Exposition Building for the College exhibit.

An addition has been put on the engine house beside the wind-mill back of the cattle-barn, and a Quaker City mill put in for grinding feed. All coarse feed for the stock will probably be ground here.

The new system of drill is manifestly a success over the old system. Its being one of the regular requirements of the college, and marked as such, can not help but add more attention to this department.

Prof. Cook attended the American Association for the Advancement of Science, at Toronto, August 27th, where he read a paper before the Section of Biology on "The Alimentary Apparatus of the Honey Bee."

The much-needed accommodation for bathing will certainly be an addition to the College facilities. The bath house is nearly done, and is in a place convenient for use by the students, and for procuring hot and cold water.

Dame Rumor says that one of our senior Co-eds is developing a fine voice—so much so that an alumnus, when coming out of Sabbath-school not long since, was heard to remark, "I tell you what, Miss A. beats Miss S.!"

The large Austin collection of *Coleoptera*, or beetles, has arrived at the college. This is the second valuable gift from Senator James McMillan, and has been added to the other under the name of the McMillan collection.

Two papers were read by Prof. Cook before the Association for the Promotion of Agricultural Science held at Toronto, August 26th. One was on "A New Remedy for Flea Beetles;" the other, "The Use of the Arsenites as Insecticides."

Wm. Lightbody, '89, was very sick before commencement, but had recovered sufficiently to attend the graduating exercises and graduate with his class. He returned home Friday after commencement, and in a letter says he is doing nicely.

President Clute delivered an address before a large Farmers' picnic, representing Washtenaw, Wayne, Livingston and Oakland counties, at Whitmore Lake, August 31. He also addressed a similar gathering at Tibbits' Park, near Coldwater, the 5th inst.

J. Warren Gunnison, a prosperous farmer of DeWitt, together with his wife and children, visited the College August 18. He was a student of the college for three years about 1865, and was in the classes of President Clute. He notices great changes in the college since then.

The Students' Organization has elected officers for the ensuing year as follows: President, J. H. F. Mullett; vice-president, J. L. Potter; secretary, C. H. Angell; legal board, F. G. Clark, C. F. Rittinger, B. K. Bentley; equalization board, C. L. Crandall, F. W. Ashton, W. A. Fox; auditing board, E. G. Cooney, J. R. McColl, L. G. Barber; steward of bathing club, A. T. Sweeney; manager of base ball association, Lieut. W. L. Simpson.

A new forcing house is to be built near the old one. It will consist of two parts, each 50x20 feet, having a work-room 20x25 feet. Prof. Taft has put considerable time on the plans, and it will be built after the most improved methods. In the heating two inch wrought-iron pipes will be used instead of the four-inch cast-iron ordinarily used, and other more modern details adopted. Different methods of heating, ventilating and glazing will be employed.

Prof. MacEwan and family left, August 21, for Madison, Wis., where the professor will take charge of his new work. He has accepted the position as principal of the high school at that place, and will have full charge of the school with its staff of twelve assistants and attendance of over 400 pupils. Before leaving the popular professor was given an impromptu reception by the students and faculty. Everyone wished him success, and his outlook is promising.

At the meeting of the Mechanical Club, August 9th, the following programme was given: Steam heating plants, Prof. Carpenter; Screw propulsion, W. H. VanDevort; Manufacture of coal gas, A. H. Kneen; Petroleum as a fuel, J. H. Freeman; Select reading on modern guns, H. V. Shattuck; Economic use of coal as a fuel, Geo. Flower. In the business meeting which followed the following officers were chosen for the ensuing term: President, Chas. Ferris; vice-president, Fred. Goodenough; secretary, Frank Bauerle; treasurer, J. H. Freeman.

Among the new faces that meet us this term is that of Miss Jane S. Sinclair, who succeeds Miss Abbot as librarian. Miss Sinclair is one of the charter members of the Ladies' Library Association at her home in Jonesville, Michigan. She has been treasurer during the fifteen years of its existence, and librarian a part of the time. She has been identified with educational work a great part of her life, having spent many years in the school-room. She was chairman of the township board of school inspectors when she came to begin her labors in our library. For thirteen years Miss Sinclair had charge of the Jonesville postoffice, first as deputy, then as postmaster. She cannot fail to find her present work congenial.

On August 21 the little steamlaunch which has been building in the shops was duly launched at Harbor

Springs and christened the "Iota." Her builders and owners are H. W. Baird, '83; J. N. Estabrook, '88; George L. Flower, D. A. Garfield, F. M. Seibert, W. H. VanDevort, '89; J. L. Potter and L. G. Barber, '91. She showed herself to be both fast and seaworthy, making a speed of nine or ten miles an hour on the first trial. After spending two days at Harbor Springs and visiting the man-of-war "Michigan" anchored there at the time, the "Iota" pushed proudly out into Lake Michigan and made her first trip to Charlevoix, a distance of twenty miles. Here the cruisers remained for ten days in "Camp Iota," on Pine Lake. Many pleasant entertainments and excursions made the time pass quickly. On August 29th the ladies of the Charlevoix resort gave an "Iota hop" in special honor of the Iota boys. The boat is now started on a cruise which it is expected will end at Detroit. It may be said to the credit of the mechanical department that the "Iota" is a success.

The State Board of Agriculture, at their meeting August 20, elected Eugene Davenport of Woodland, Mich., to succeed Prof. Johnson as professor of agriculture. He is 33 years of age, and possesses more than ordinary ability. Graduating from the college in 1878 he took up, and made a success of the occupation of farming. In 1884 he took the degree of M. S., and in 1885 returned to the college as assistant botanist of the experiment station. All acquainted with him pronounce him thoroughly qualified for the place he is about to fill. In the words of the state statistician, R. L. Hewitt, "He is a clear, close reasoner and thinker, and an excellent practical farmer." Prof. Alvin B. Noble has been chosen to succeed Prof. Pat-tengill. He is a young man, about 27 years old, and graduated from the State University of Iowa in 1887. The following year he took a post-graduate course in English Literature and Languages under Prof. M. B. Anderson, a brother of our Prof. Anderson, who succeeds Prof. MacEwan. Prof. Noble has long been engaged in educational work, teaching one year in Howe's Academy, Iowa, and last year as assistant principal of the Bellevue High School. He comes well recommended, and will find his new work a pleasant one.

The examinations ending the last term of another year were completed August 16. The usual plans for commencement time were carried out successfully. On Friday evening the Olympic and Eclectic societies and the Delta Tau Delta fraternity held their annual banquets. As all were on the fourth floor of Williams Hall, considerable intermingling added to the pleasure of the evening. The Delta Tau Delta boat crew, dressed in sailor suits, created no small interest, especially among the softer sex. A large crowd gathered in the Chapel at 2:30 P. M. Sunday to hear the baccalaureate address. Upon the platform with President Clute were the Rev. G. R. Foster of the Freewill Baptist church, and Rev. C. H. Beale of the Congregational church, both of Lansing, together with ex-President Willits, who, to the pleas-

ure of all, returned, as he said, "to graduate with his class"—the graduating class being the class that entered when he took up his duties here. President Clute's address was enjoyed by all. His subject, "The Temporal and the Eternal," was presented in a vivid manner, and many excellent thoughts found lodgment in the minds of his hearers. Fine vocal music was furnished by a male quartet from Lansing. The banquets of the Union Literary society and Phi Delta Theta fraternity on Monday evening were very successful. At 10 A. M. on Tuesday a crowd had gathered in the armory for the graduating exercises. The orations were as follows: Horticulture as an occupation, D. F. Anderson; Appearances not deceiving, A. D. Baker; A problem of happiness, R. S. Baker; Un-recognised heroism, W. E. Davis; Respect for law, O. C. Hollister; Culture in a business career, G. J. Jenks; The educated laborer, E. N. Pagelson; The progress of American poetry, W. S. Palmer. The class graduated 43. At 3 P. M. a large audience gathered again in the armory to hear President Clute's inaugural address. Dr. Kedzie, in behalf of the faculty, and Gov. Luce, in behalf of the State board, welcomed the new president. The basis of President Clute's inaugural was the new system of education compared with the old, and their relation to the Agricultural College. Ex-President Willits followed with a short speech relative to his connection with the institution. In the evening President Clute gave the students and their friends a reception, and an enjoyable time was passed by all until a late hour. This terminated the commencement exercises.

The College will have quite an extensive exhibit at the State Fair. The Agricultural Department will have a good show notwithstanding the detrimental effect of the dry weather. In addition to the fruits and vegetables the Horticultural Department will show one hundred photographs taken of cabbages, lettuce, and the like, when they were in their prime. The Mechanical Department will exhibit four lathes some small engines, turned articles, and many other pieces of work from both the machine and wood shops. Among the articles shown by the Botanical Department will be twenty large drawings of microscopic work, some large photographs of pine woods scenery, and samples of all the native evergreens of Michigan. The Zoological Department will show a collection of insects, honey plants, specimens of honey and a colony of bees, which will be manipulated daily under a bee-tent. A large portion of the whole exhibit will be taken to the Detroit Exposition.

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.

'61.

Prof. A. N. Prentiss and wife are spending their vacation on the seashore of Maine.

'62.

In a recent issue of THE SPECULUM mention was made of the military records of several M. A. C. graduates, and we think it but simple justice to state that the whole of the class of '61, together with Mr. C. A. Jewell of '62 hastened to their country's support in her hour of need. Two were slain in battle, while the others returned to enjoy the blessing of the liberty which they had defended. Since the war Mr. Jewell has been engaged in various occupations, but is at present farming at Hudson, Mich.

Frank Hodgman lives at Climax, Mich. Although poor in health, he still attends to his duties as surveyor of Kalamazoo county. He is very generally known as the Secretary of the Michigan Engineering Society, besides holding several other minor positions; and, in connection with Prof. Bellows, has written and published a manual of hand-surveying, and field books for county surveyors.

'67.

Daniel Strange owns the beautiful farm "Cloverdale" at Grand Ledge, Mich. He is northwestern agent for the Johnson Cyclopedia and is, perhaps, the best salesman in Michigan. Mr. Strange has been for many years a close student of Political Economy and gave an interesting lecture in the M. A. C. Chapel to a large audience Wednesday, Aug. 14.

'68.

Prof. S. M. Tracy is Professor of Botany and Director of Experimental Station at the Agr'l College, Miss, and is said to be the most popular instructor in the college.

D. A. Harrison is manufacturer of paints and dye colors; also Manager of Peninsular White Lead and Color Works, Detroit, Mich.

John Swift is farming at Harbor Springs, Mich. John has not forgotten his Landscape Gardening and Surveying.

'69.

Chancellor C. E. Bessey of Nebraska State University gave papers at Toronto, before the Association for the promotion of Agricultural Science, Botanical Club, and the A. A. S. of Science. He was recently elected President of the Agricultural Association.

'70.

Hon. C. W. Garfield was at the College Aug. 30, on his way to Detroit to arrange for the College exhibit at the Exposition.

'71.

Prof. B. D. Halsted was in attendance at the meetings at Toronto where he presented papers before the several organizations.

'74.

M. T. Rainer is pastor of the Congregational Church

at Kingsley, Iowa. He has held this position for three years.

Geo. W. Brewer is still teaching school. He has taught twenty-one successive terms in district, village and city schools. He has been School Inspector and Supt. of Schools and is now Secretary of the West Leslie Association of Patrons of Industry, No. 680.

'75.

Chas. Sturges is no longer County Clerk of St. Joseph County, but is practicing law at Sturgis, Mich.

B. A. Nevins is proprietor of a general manufacturing establishment at Otsego, Mich., and it is said that he makes money so fast that he measures it with a bushel basket.

'76.

E. D. Brooks is a flourishing physician at Flushing, Mich. He writes, "I am glad to learn of the increasing prosperity and elevated standing of my Alma Mater."

'77.

Prof. Frank S. Kedzie spent his vacation at Petoskey.

'78.

F. W. Hastings has again obtained his old position as Railway Postal Clerk from which he was removed by the democratic administration in '88. He was reinstated by the present administration last April and runs every other week from Cadillac, Mich., to Ft. Wayne, Ind., on a salary of \$1,000 per year.

Eugene Gregory and Miss Della Allen were united in the holy bonds of matrimony, Aug. 21, 1889, at Ann Arbor, Mich. The M. A. C. extends congratulations and wishes the happy couple long and prosperous lives.

'79.

The genial E. J. Rauchfuss, city salesman in New York City, was to be seen proudly parading the M. A. C. campus lately.

WITH '79.

Mr. B. Brown writes from Spokane Falls, "a twenty-five thousand dollar stock company has been formed here to erect a hotel on Granite Lake. Among the officers are several old M. A. C. boys. I. B. Bates will act as secretary and treasurer, W. R. Rumler as general manager, while Bob McCulloch will look after the practical part of the business." Mr. Brown has just opened a law office at Spokane Falls and is having plenty of work for a new man.

'81.

A. B. Turner has accepted the principalship of the schools at Three Oaks, Mich. He attended the summer school at M. A. C. two weeks this year to learn the modern ways of teaching Physics and Chemistry.

'82.

J. L. McClear is practicing law at Negaunee, Mich. He says, "I was married June 19th, 1889, and can

truly say that 'marriage is not a failure.' We most heartily agree with you, J. L. We are not yet married but would very much like to be.

'83.

H. W. Baird, formerly assistant secretary of the College, was on the grounds commencement week.

Prof. Clarence M. Weed, entomologist of the Ohio Experimental Station, was present at Toronto and presented papers before the Agr'l Association and the Entomological Club. He was elected a member of the first and Secretary of the second.

A. C. Baird has procured a helper on his farm in the person of Miss Josephine St. Johns. The marriage occurred Aug. 22d, '89, at Highland, Mich. Shake, old boy.

Arthur Kinnan, for the past year Supt. of schools at Big Springs, Texas, has been appointed assistant examiner in the U. S. patent office and is now living with his brother and wife at Washington. His brother writes, "We are a happy trio to whom THE SPECULUM is always a welcome visitor."

'84.

O. L. Hershiser is Supt. of the Apiary Department of the Buffalo Exposition. He says, "We are going to have a grand show."

'85.

W. S. Baird writes, "I am very pleasantly situated in one of the leading law offices of Western Michigan, that of Knapper & Varman, Grand Rapids, and am thoroughly in love with my profession."

C. B. Collingwood, lately Assistant Chemist, has been elected Prof. of Chemistry at the Arkansas Agricultural College.

'86.

J. S. Dixon recently spent a few hours at the College. J. S. is in the lumber business.

The home of Theo. A. Stanley is blessed by a Mr. Stanley, Jr., born Aug. 27, 1889. He is an eight pounder and sometime in the future intends to come to the M. A. C. Theo. is a busy farmer at New Britain, Conn.

George L. Spangler writes from Duluth, Minn., "I am still unmarried and the indications are that I am likely to be for some time." George, we say to you confidentially that the life of a bachelor is a great mistake. Mr. Spangler is a well-to-do lawyer and owns a very valuable tract of iron land; also owns a quarter interest in an electric car brake. As always, George is still selfish of his old violin, for it is his sole consolation at times of annoyances.

Wm. G. Everhart is civil engineer at Elgin, Ill.

W. A. Kinnan has lately been transferred from the Adjutant General's office to that of the Secretary of War. He is married and living in one of the most delightful places in Washington.

H. N. Jenner has become a Hoosier. Shake on that, old fellow, we are a Hoosier, too. Mr. Jenner removed from Allegan to Goshen, Ind., about six months ago,

and is engaged in the drug business with excellent prospects of success.

'87.

H. H. Winde is farming and conducting a general store at Brampton, Mich. He is also planning an extensive sugar business. Winde is still full of M. A. C. patriotism for he urgently requests a copy of the new "Harrow."

H. W. McArdle has purchased some bees and will soon be a full fledged apiarist. He writes "I am putting into practice some of the principles of horticulture. I began in the line of small fruits last year and though the profits will be small at first, I expect to do a good business in a few years." Much success, Harry.

G. C. Crandall is in a physician's office at Argentine, Mich., learning the practical part of the profession.

'88.

Miss Mary Carpenter was at the College during commencement.

F. H. Hillman has commenced his duties as Prof. of Entomology in Nevada Agricultural College with a salary of \$1,500 a year. It is rumored that he will return to M. A. C., not to pursue a course of study, but to get his wife.

John Stafford is farming near Lennox, Ohio. At present he is playing "batch," but we hear that there are prospects of a marriage soon.

A. B. Goodwin and Miss Nellie Klotz were married at the residence of the bride's parents, Ionia, Mich., Sept. 4, 1889. We extend the congratulations of THE SPECULUM.

Lyster H. Dewey, Assistant Botanist of the Experiment Station, M. A. C., surprised the boys at the beginning of this term by bringing with him one of Tecumseh's belles as his wife. The marriage occurred Aug 22, 1889. Miss Etta Conkling *used to be* the lady's name. We congratulate Mr. Dewey with the greatest of pleasure.

'89.

H. A. Stewart is taking a post graduate course at M. A. C. instead of farming.

It was reported that J. W. Earle and W. E. Rohnert were going to Australia. Only last week each of them called at the office of the county clerk—ostensibly to purchase tickets to Australia.

The last SPECULUM reported F. J. Niswander at sea. He is now safely anchored beneath the protecting wings of Prof. Cook.

L. A. Clinton expects to get married as soon as possible.

WITH '90.

We understand that Chas. A. Udell is giving instructions in "practical agriculture" on his father's farm near Jefferson, Ohio.

Chas. Burns is also employing the principles of practical agriculture, imbibed at M. A. C., on his father's

farm at Tipton, Mich.

WITH '91.

Jason Stebbins is at home in Branch county, on the farm, studying agriculture and botany. The indications are that he will follow in the footsteps of the boys of '88.

ATHLETICS.

The College base ball team, though weakened by the loss of several good players, still promises to become better than could be expected under the circumstances. The freshman class appear to have several good players in their ranks and these will materially strengthen the team. The club may be considered fortunate in getting so good a manager to fill the place vacated by Prof. Carpenter, who for two years has very successfully managed the team. It is probably safe to say that in Lieut. Simpson as manager, and C. F. Rittinger as captain, the ball team have a corps of officers that they may be proud of, and who will use every effort to make the team a success.

The freshman class, also, claim to have men who excel in other athletic sports, such as boxing, running, and jumping—who will make quite an accession to our number of athletics. We hope that they may excel in this line, as the college is at present very deficient in boxers and runners.

The Freshman class also have more who wish to play foot ball and this would be a good time to organize an "eleven." We have for a long time been trying in a fitful and unsystematic way to get up a foot ball "eleven," but with little success. The reason is not because of a lack of material for the team; that we have in abundance. All it lacks is organization.

The athletic department feels that it is its painful duty to criticise the editor-in-chief for not printing the best and most important part of the matter for the August number. If a department of a paper is of so little importance that it may be curtailed and crowded into a corner by the other departments, there is no particular reason for retaining that department in the paper. We sincerely hope that in the future the editor-in-chief will not find it necessary to thus neglect any department.

It is no longer necessary to sign the Westminster confession of faith before becoming a professor in the University of Scotland.

More college students come from Connecticut in proportion to the population than from any other State. She sends one to every five hundred and forty-nine persons.

The Sanford University has ordered a forty-inch glass for its new telescope. This, with the Lick telescope and the new telescope to be erected at the University of Los Angeles, will give California the three largest telescopic observatories in the world.

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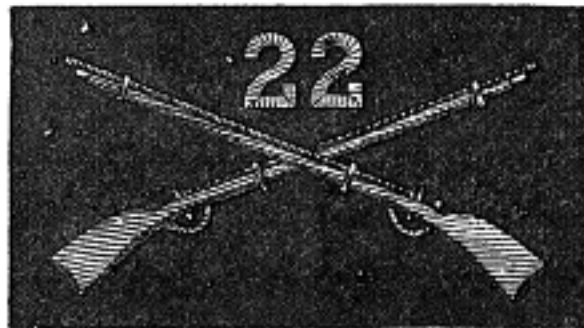
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