

THE SPECULUM.

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Fellow Alumni: Geo. A. Farr, '70.

What to say and how best to say it, is, upon an occasion like the present, a matter of somewhat grave concern. The time and place demand a larger thought and fuller preparation than I have found at my command. But that tongue would be mute indeed which could be silent here.

We are in the midst of scenes hallowed by the associations of our youth. These old walls look down upon us in benediction. The very air seems laden and fragrant with tender memories of the years gone by. We look upon faces that recall the ambitions, the emulations, the friendships of the past. Here are teachers whose biographies are best written in the success and fame of this institution—who for nearly thirty years have given their ripest thought and highest effort to the youth of Michigan. And we see our Alma Mater, once almost begging for the right to be—a biennial suppliant for grudging favors—now rejoicing in the consciousness of strength and power; one of the acknowledged leaders among the educational forces of the State. These grateful recollections, this pride in accomplishment, press upon us for expression. They draw us strongly—none better than you know how strongly—in the paths of reminiscence and of congratulation. And, indeed, none could seriously complain if these meetings, so distant in point of time, yet so rich in friendship's gift and greeting, were wholly dedicated to memory. For with all the changes wrought by time, by industry and art, we recognize the dear old college still. We are at home. Here the broken links of old companionships are gathered up. Here we greet our living and we mourn our dead. Here we compare the present with the past, and are

glad to know the new is better than the old; each year brings advance and progress. These thoughts, these exultations are ours of right. They belong to us. They are our special heritage.

But these gatherings have another purpose. With the high thought of success attained always comes a higher still. What of the future? We meet here upon common ground—the gray-haired man, who a quarter of a century ago began by work and worth the vindication of his training, and the graduate of yesterday, who with springing step and throbbing heart faces the future with hope and joy. We meet upon the common ground of loyalty to this institution and our State. We meet to take counsel together how may be best subserved the high purpose of its foundation, to inquire what are the real results, what is the highest end and aim of an education here.

A recent newspaper article, written or inspired by whom it is not important to know, mourned the fact that some of the graduates of this college pursued other avocations in life than that of practical agriculture. It insisted that the only legitimate design of this institution was the practical education of farmers, and that farmers alone should be the product of its instruction. This is the voice of the past and its narrowing echoes are still, it seems, sometimes heard. But that cannot be the entire scope and meaning of that clear-sighted statesmanship which so magnificently dowered these institutions from the public domain. Its munificence has a broader range. Its seed was sown with a more lavish hand. It saw with a wider vision. This education is at best but mean and shallow which ennobles but one phase of human effort, which instructs and fits for but

one purpose in life. That system of elemental instruction which prepares our children to be only farmers, or lawyers or physicians or mechanics is unworthy the support of any thoughtful man. Intelligent farming, success in business, professional pre-eminence, these are good in themselves, but these are not the verge and bound of the mental horizon; these are not the full and just results of symmetrical education. Above and beyond this individual preparation lies the domain of society and government, a high standard of citizenship, a broad comprehension of public duty. This college founded and fostered alike by the State and the Nation, should teach in a spirit as broad as its origin. Narrow minds cannot limit its possibilities. Its sphere cannot be cribbed and confined by selfish interpretation. No class of employment can claim an exclusive title to its benefits. By this its arm would be shortened and its strength shorn. Its graduates should go out into the world, their minds attuned in harmony with all its multiform activities. By precept and example it should teach—it does teach—the true nobility of labor.

The only knightly figures of the nineteenth century are its toilers—its toilers by heart and hand and brain.

As agriculture is the basis of all material wealth, as its springs are the source of all prosperity, so education here should, education here does, elevate and dignify it. To the weary hand it brings the staff of knowledge; to the dim sight the torch of science. It unlocks the mysteries of nature, and by intelligent experiment, it seeks the true philosopher's stone; seeks to produce two blades of grass where but one has rewarded the blind effort of the past. It does more than this, it redeems from the stigma of brainless toil. Touched by its magic wand, the earth is transformed from a mere theatre of drudgery to the very arcanum of nature's wonders. By its virility and influence, the farmer may aspire to place and kinship with the kings of human thought. But its obli-

gations and its powers do not stop here. The discipline and training of this institution arms its graduates for honorable and successful battle in every calling and avenue of life. They enter too, with minds trained in sympathy with all workers in every field. They carry with them everywhere a high conception of the farmer's duty, life and calling; but their education has not taught them to be farmers alone, nor mechanics, nor scientists, nor to follow the professions. To them the world's work is a rounded whole and they seek their place in it as individual aptitude, circumstance and conscience may dictate. To teach the unity and grandeur of all useful effort I believe is the true mission of this college. The temple of our civilization is not made of a single stone. Its holy of holies is not dedicated to a single divinity. Its grace and beauty can only be maintained by the care and preservation of every part. It is not so much the nature of our work, as that we do something and do it well; it is reproach only to be a drone in the great hive of human industry.

But there is another phase of this question, already hinted at, upon which I wished particularly to be briefly heard.

I was speaking with a graduate the other day upon a question of national policy. He informed me that he paid no attention to those things—that it brought him no bread and butter—was the work of politicians, and they could run the machine to suit themselves.

As this was not a singular but a too common instance, I desire to protest against such criminal indifference. A deep, an overwhelming sense of its importance has prompted me to lay this protest before you, students, teachers and alumni of the Agricultural College of Michigan.

I believe there is demanded of our graduates, I believe there is a crying need everywhere, for a training beyond that of agriculture, science or the mechanic arts. It is for the patient and faithful acceptance of the

active duties of citizenship—of those duties in a public sense. It is for a robust Americanism. In the mad rush for wealth this is often forgotten. Certain forms of education ignore it. It is somewhat fashionable phrase to clothe with the opprobrious name of politician, every man who takes more than a negative interest in his country.

This is an evil, a fatal tendency. We cannot too strongly condemn it. Nothing is so surely calculated as this perversion of instruction to sap the foundations of the republic. If the name of politician has become one of reproach, it is only because the hand of ignorance and vice has snatched the scepter of authority from the careless grasp of intelligence and virtue. No word should be of better fame. It can be redeemed only when men of education and character seize by the throat the jackals of politics—when our schools and colleges teach that, higher than self, better than mere personal success, above the interests of any class, lies the domain of public duty. For all success, all interests, the highest rewards of personal ambition, are possible only under just government. Never was the call for this more imperative than now. It is not in the crucial epochs of a nation's history that its danger lies. In the hot crucible of great events the dross is burned away—the gold appears. The furnace and the flame of 1861 gave us Lincoln and Stanton and Grant; gave us Sumner and Seward and Sherman; gave us union and equality and national honor. It is in the peaceful current of affairs that men grow careless and indifferent. In that carelessness and indifference lies the real danger to the State.

How many social problems confront us to-day, demanding wise consideration and calm judgment; demanding a consideration outside the mere makeshifts of the hour? Facing these problems we inquire what are the conditions of continued national prosperity? They may be stated briefly, for intelligent controversy unites upon them.

We must have a population essentially American, with like traditions, aspirations, hopes; united by a common language and governed by just and universal laws. There must be the same law and the same administration of law for wealth as for poverty, for the banker as for the farmer, for the employer as for the employed. There must be also the spirit of patriotism, the love of country; and this sentiment should be the elemental instruction of the American youth. A nation without patriotism is dead. The American people must also be educated and intelligent, standing with uncovered heads before the vast responsibilities of self-government. They must regard the ballot as the sign and signet of a king, and its exercise as the highest distinction of honor and sovereignty. It must not be the sport of ignorance, the tool of demagogues, the purchased weapon of the unscrupulous. With all this must come a wise and dignified statesmanship, which, looking beyond the exigencies of mere partisan politics, regarding the whole world as kin, yet shapes our policy with reference to the happiness and prosperity of our own people. We may never be able completely to realize this. To this end, however, should the efforts of every educated patriotic American citizen be directed. No lower ideal can perpetuate republican institutions upon this continent. The necessity for pure and elevated standards of government increase with each succeeding year. As we grow in wealth and away from the primitive simplicity of our ancestors, as great centres of population increase, as the conservative spirit of the country is more and more overborne by the feverish and active enterprise of the towns, as men gather into guilds, classes and fraternities, each governed by peculiar and often secret laws, and each tempted to seek self-aggrandizement at the expense of every other order and condition of society, as we face this reality which is coming, if not already here, we see to how high a test of citizenship we

are called, how absolute is the duty of every intelligent man in the active direction of just government.

Our social situation is as unique as it is menacing. More than 500,000 souls are added annually to our population from Europe. That this country should be the asylum of the world, was one of the maxims of our fathers. But they were only partial prophets of the future. Then men crossed the sea, facing the perils and hardships of a new world. Only heroic souls abandoned the comparative ease and safety of their own shores, to tempt the dangers and uncertainties of an unknown land. They met here tempers as bold and independent as their own. The absence of wealth, the enforced simplicity of manners, the isolation of the wilderness, these things bred in them individual character and self-reliance, inspired them with a knowledge of liberty and exercised them in its virtues. As the forests fell before their strong arms, they came to love the land of their adoption, and out of their toils and dangers was wrought the very fiber of freedom. If indolence, violence and crime, driven from their haunts in the old world, came to these shores, they met only the rude face of savage nature, and perished for the want of their natural enemy and prey, society.

But modern civilization has brought the old and new worlds into closer touch, and the thin current of our fathers' time has become the mighty torrent to-day. With this has come to our country much of intelligence, wealth and added power; but with it has also come the criminal, the ignorant, the vicious, the pauper, and the incoming stream grows more and more depraved. So enormous an addition to our population is in any case full of peril. At the best it comes to us ignorant of our laws, unused to self-government, ready listeners to the voice of the demagogue and doubly so if that voice is in the language of father-land. Upon society has fallen the hard task of assimilat-

ing this vast element. It is a painful process and one of danger too. Its effect upon us as a people cannot yet be determined. But so much we may all admit: Our safety demands that the patriotic, the practical, the intelligent hand lay hold of the helm of politics. It demands that American ideas and principles be promulgated and perpetuated, untainted by the plague spots of foreign social conditions. It demands that the public schools of this country shall be dedicated to the service of the English tongue; their teaching uncontrolled by sect or creed or foreign interference.

The enormous increase in our cities gravely complicates our social and political situation. In 1790, there were but six cities in this country of more than eight thousand inhabitants. Now there are nearly three hundred. Our urban population was then but three per cent of the whole. It is now thirty per cent. There gather the vicious, the criminal, the ignorant, the alien. There are the centers of corruption. There are the Tweeds, the McGarrigles, the Jacob Sharps. There are the rings for which the past has become infamous—the city hall ring, the courthouse ring, the aldermanic ring, and the thousand other combinations of corruption by which the lean and loathsome fingers of knavery snatch at the public purse. Why is all this? It is not because men lose honor and principle by intimate contact; it is not that high virtue and stainless integrity may not exist as well in the crowded street as in the forest, on the farm or by the mountain stream. It is simply because the intelligence of our cities has been careless of public duty. In the pursuit of wealth and material advancement, it has suffered itself to be bound hand and foot before the Juggernaut of ignorance and vice. It has seemed to wink at and countenance the shameless violation of every trust. It has stood aloof and seen nominations to public office dominated and controlled by the very slums and gutters of depravity. It has stood silent while the

voices and the votes of men, ignorant or defiant of the simplest duties of citizenship were imperial in municipal affairs. It has stood with its hand upon its mouth while men have been named for places of high trust, not because of ability, fitness and character, but because they could draw votes from some class, employment or nationality. This is cowardly desertion. It is criminal lethargy. It is an abdication and a shameless prostration of the dignity of citizenship. Its continuance and its growth are absolutely destructive of our future as a people.

Another reason for public vigilance is the invasion of the field of politics by the saloon. I need not argue here that the saloon is absolutely without justification for existence—that it is a corrupter of public morals and a menace to the public safety. It is not only a moral leprosy, but it seeks political power. It has not only invaded the home, wasted the wages of labor, filled prisons and alms-houses; blighted with its scorching breath the hope of youth and the serenity of age, but it has aspired to the very seat and throne of government itself. It has assumed the censorship of great political parties, dictated nominations, prescribed platforms and threatened with defeat and ruin all political action taken in opposition to its arrogant will. But before the awakened conscience of the intelligence of this country, the saloon as a factor in politics could not live a single hour. If found at all it would be only as a miserable culprit, outcast from law, and with the ban of civilization upon its brow. In the face of this possibility, this absolute certainty, the noble arena of public action, the highest duties of the citizen, the safety of the social fabric itself, should not, and must not be left to the conduct of the vile, the trickster, the place hunter.

There are other political and social problems as profound as the corruption of our cities, as significant as the influence of the saloon in politics. There is lightning along our horizon. There is an untaught groping

after a better state of things. We read something of this in the vast industrial disturbances of the past decade. Men speak of a deep spirit of discontent among wage workers, and this is, with many, a source of grave apprehension. In so far as this spirit of unrest arises from an intelligent ambition to better their condition in life, to obtain a juster share of the products of labor, it is not dangerous. This hope, this claim is the birth-right of every American. But this agitation does not in all cases, spring from a manly independence or a laudable ambition. Too often it is the fruits of false and pernicious doctrines which, driven from their birth-right places in the old world, have luxuriated and expanded under our democratic institutions. Centuries of ignorance and oppression have wrought in men's minds hatred and contempt of all government. Recognizing in society only its burdens, and in law but its heavy hand, they declare war on all society and all law.

The Nihilism of Russia, the communism, socialism and anarchy of Europe have come to us upon the turbid tide of immigration, and setting up their standards in the fields of labor, have sown their pestilent heresies far and wide. Real or fancied discriminations in the burdens or blessings of governments, have brought into the political field the banners of class and guild. With much of honesty and integrity and patriotism, yet all seek the remedy for present evils, in class political action, in the subjugation of other interests to their own. I need not say that success along such lines is impossible; that the attainment of the very end they seek would be ruin, utter and irretrievable. There is but a barren choice between the domination of classes, whether it is that of hereditary and landed lords as of Ireland, or the capital, the railroads, the farmers, the working men of America. All are equally out of joint with the spirit of our institutions. All are equal enemies to the true greatness and repose of this country.

No party can succeed, no party ought to succeed, unless its aims and its principles are as broad as our empire; it must embrace in its sweep, every class and condition of men.

I believe the great question of to-day and of the future is the education of our people out of the narrowness of class; out of the cribbed confines of their own particular interests to an intelligent conception of the common design and unity of all interests. Wise and just legislation should guard and protect, so far as legislation may, capital and labor alike. It should limit the grasp and greed of monopoly; it should as sternly deny the right of any combination of men to prescribe to the American citizen, how he shall earn his bread.

Let us teach that the true genius of our institutions gives to every man an equal chance in the battle of life; that to industry, temperance and frugality all things are possible. That from the poverty and granite soil of New Hampshire came Webster, the expounder of the constitution. From the Ohio tow-path came Garfield, over whose bed of pain a world hung in sympathy. That from the cabin of the pioneer came Lincoln, the liberator, the martyr, the grandest figure of the century, whose youthful hands were hard with humble toil.

Let us teach that the liberty of this continent is a regulated liberty. That all governments, to be worthy of support, must be absolute governments. No other has the right to lay burdens upon society. There is the absolutism of the minority, of the class, without certain definition or limitation of power. That is despotism. There is the absolutism of the majority, without reference to class, limited and controlled by just, equal and positive law. That is liberty. In the absence of these we have social dissolution, anarchy. A pure despotism—the unlimited will of one man, bearing in his single hand the unquestioned issues of property, of liberty and life—is apt to follow the wreck of

constitutional government, is apt to follow the tyranny of a class.

Upon the educated men and women of our country this duty rests. They must enter the field of politics. They must purify and ennoble it. They must demand and compel the enactment of just and equal laws; and they must exact obedience to law. Not by the zeal of partisanship, but by fidelity to public trust, they must make the name of party honorable. Into this field the intelligence of America is commanded to enter, but to none does this command come more strongly than to those who have drunk at the fountains of public benefaction—the graduates of our agricultural colleges.

The Electric Light.

J. W. FERRIGO, DELTA TAU DELTA FRATERNITY.

In 1810 Sir Humphrey Davy exhibited before the Royal Society the arc light. It was produced by a battery of two thousand cells. The arc was formed between two charcoal points and quite naturally because of the intense heat the charcoal was rapidly consumed. For forty-four years it remained a brilliant laboratory experiment, and then when gas carbon was substituted for the charcoal it seemed that the electric light was to be more permanent. But the principal difficulty was still to be overcome. The production of the light required a powerful current, and this could not be economically produced by batteries. Davy's battery of two thousand elements produced the light successfully, but they, like other strong batteries, last but a short time and are not at all practical for electric lighting.

In Paris the light became popular and though it was costly it was used for lighting theatres and public squares.

Faraday's discovery of a current being produced in a wire by a magnet being moved near it, is the basis of the successful commercial lighting of to-day. His discovery was that if a coil of wire is passed through

the field of a magnet, a current would be induced in the coil, varying in strength according to the strength of the magnet and the number of turns of wire in the coil. A year after Faraday's important discovery a machine was devised to put it into practical use. It was constructed by Pixii and consisted of an electro-magnet, opposite whose poles the poles of a permanent magnet were revolved. This produced a current in the coils of the electro-magnet and so a current of electricity was produced by mechanical means. This was the beginning of the dynamo. Two years later Saxton designed a machine in which the magnet was fixed and the coils revolved. In nearly all the machines made since, this is found to be the best plan. These machines were gradually improved until after 1860, when the largest and most powerful machines were made. These were the Alliance machines. They were carefully and expensively constructed and did not solve the problem of economical lighting, though for several years they were used in the French lighthouses. The magnetic field of the machine was composed of eight sets of large horse-shoe magnets, about six in each set. There are four sections in the armature and sixteen coils on each section, making as a whole a rather elaborate machine. These generators are as efficient as a machine with permanent magnets for a field could be, but in proportion to their size they are not nearly as efficient as the generators with electro-magnets for the field.

These generators called dynamos to distinguish them from the magneto machines are the machines that have made electric lighting practical. The first one was constructed by Ladd of London in 1866. This machine was more efficient than the magneto machines but they had the same form of armature and it was evident that improvements could still be made. In a few years the ring forms of armatures were invented by Gramme and Brush, and later the drum

form was designed, and is now the form that is used to the greatest extent. It is made by winding wire lengthwise around a drum made by stringing iron washers on a shaft. By winding this way the only waste wire is on the ends and in the ring form over one-half of the wire is idle. The drum form has been found to be the most efficient and few dynamos are now made with any other form of armature. With the improved forms of dynamos the principal obstacle, that of finding an economical current generator, is overcome and the only remaining difficulty is to make a suitable lamp. The first lights were made by forming an arc between two carbon pencils held in any sort of a frame, but it was soon found that some kind of a regulating device was needed to push the carbons together as they were consumed. A simple device was contrived consisting of a rack fastened to the upper carbon and a gear moved by clock work. This was not a success and a more reliable regulator was desired. Several forms made of clock-work were contrived, but they were very complicated and could not be relied upon.

About 1875, Chas. Brush of Cleveland, invented a regulator controlled by the current that produces the light, and the current is controlled by the distances between the carbons. The current goes through an electro-magnet which holds a lever that is fastened to a clutch. This clutch holds a brass rod that is fastened to the upper carbon. When the carbons become consumed the distance between them is increased and the current becomes weaker, the electro-magnet loses some of its strength and lets the lever go back, this loosens the clutch and the carbon is lowered. There are now many good forms of regulators but they all depend on this principle.

The arc light is used almost entirely in lighting streets and large halls, while the general lighting of the interiors of buildings is done by incandescent lamps. These lamps

consist of a carbon filament placed in a glass globe; the filament is heated to incandescence by passing a strong current through it. The globe is filled with some gas that will not support combustion and the filament will last a long time; the average life of a lamp is about one thousand hours. Incandescent lighting is not as much of a success as arc lighting. The principal reason is that the wire costs so much more. Generally in every plant the cost of the line wire is nearly half the cost of the plant. The best arrangement for the incandescent lamps is to connect them to parallel wires, while the arc lights are connected in series on one wire. Thus the extra amount of wire makes a considerable difference in the total cost. In long distance lighting, the incandescent lamps are not connected directly to the main wires, but are connected to a transformer which is connected to the main wire.

The electric light is not an experiment; it has not been for many years. It is a commercial success and thousands of plants are in operation and many more are being constructed. During the last fifteen years the electrical industry has grown immensely and it shows no signs of abating.

For thousands of years the power of electricity to produce light, and very beautiful and brilliant light, has been shown by nature in the lightning; but it is only during the last quarter of a century that man has made use of electricity in producing a light for the ordinary purposes of illumination.

SCIENTIFIC.

Mint.

F. P. CLARK.

The peppermint plant is little used for a pot herb, but is mainly cultivated for the purpose of distillation.

Mint may be grown from seed, but this method is rarely practiced, as it is more rapidly increased by sowing pieces of the

root. The roots best suited for planting are those of one year's growth. They may be planted in the spring, soon as the soil is dry enough to work, as the plants make a very early growth. It may also be planted in the fall; about the fifteenth of September is the best season.

The method of planting is quite laborious. The plants enjoy a good sandy loam soil; however it is grown more largely on muck lands; yet in a wet season it does well on high land, and will produce a very fair crop. The ground should be thoroughly tilled before planting, as this will save much after labor in cultivating, and keeping clear of weeds. Roots for planting are plowed out, shaken free from soil, and left in heaps covered with earth until they shall be needed. When the ground is ready the roots are picked to pieces and dropped in furrows, and covered by aid of the feet. This makes continuous rows, which should be about two and a half or three feet apart. The method of cultivation is more simple. If the land has been thoroughly prepared it can be cultivated at a cost not exceeding five dollars per acre, at least for the first season. The plants usually have to be hoed twice during the growing period, besides receiving about the same cultivation that would be given a corn crop. The mint must be kept absolutely free from weeds, as the crop is a slow grower, and also anything of a foreign nature would greatly injure the quality of the soil.

About the last of July runners are thrown out and cultivation ceases. The mint is cut the last of August, or when the larger part of the plants are in blossom. After being cut it is allowed to lie until slightly wilted, when it is taken to the still and packed in large vats or tubs. Steam is then passed up through the mass, and is allowed to escape from the top into a system of condensing pipes leading to a reservoir where the liquid, now saturated with the oil, is collected. From here it is filtered into cans, and is now ready for the market, where it

brings from two and a half to three dollars per pound.

Nearly one-fifth of the entire product of this article is produced in St. Joseph county of this State. The extract is used principally for medicinal and confectionery purposes.

As a matter of experiment quite a large plot on the college farm will be put into peppermint this present fall.

Bees as Fertilizers.

Darwin in his classic experiments years ago proved that insects were very necessary to the full fruitage of many plants; that nearly all flowering plants with showy flowers, or fragrant bloom required the visits of insects to insure fertilization and a crop of seed or fruit. Often flowers are either staminate or pistillate so that the male flowers are on one plant, may be, and the female on another far distant. In all such cases the pollen must be carried from the one to the other either by wind or insects. But where both kinds of flowers are on the same plant, or both stamens and pistil in the same flower, it is found that bees are still necessary. This shows that cross-fertilization is necessary. Nature objects to close fertilization. This year some very interesting experiments were tried here. A portion of each of two twigs was taken, containing the same number of flowers. One of these twigs was covered with cheese cloth just before the flowers opened. The other was left uncovered. These experiments were tried on apple, plum, cherry, pear, strawberry, raspberry and clovers. In every case the results showed that the bees were necessary. The cloths were removed as soon as the blossoms fell, and later the fruit was examined. In every case much more fruit was secured where the blossoms were exposed to insect visits. In several cases, no fruit was secured where the blossoms were shut away from the visits of insects. This was especially true of white and alsike clover, and in some cases with

fruits. The strawberries were least effected, though here the covered fruit was less abundant in every case. Here boxes covered with cloth were set over the plants. Insects may have come up from the ground and carried the pollen from one blossom to another.

These experiments show that the fruit grower hardly less than the bee keeper is interested in the welfare of bees, and that any law preventing the spraying of plants or trees when in bloom is valuable alike to pomologist and apiarist.

Accidental Characteristics Inherited.

At the recent scientific meeting held in Washington, Prof. Joseph Jastrow recited a curious case, where a woman had lost the sense of smell from catarrhal affection. So far as there was any record, none of her ancestors were without smell or faulty in this sense.

A son of this woman with no disease or apparent cause was found to be without the sense of smell, as early as it was possible to make the determination. This seems a case of the inheritance of accidental peculiarities, and so to contradict Weismann's idea that accidental peculiarities are never inherited. It is rather in the line of Lamarck's theory.

It was further stated that the young man had very little sense of taste. All kinds of food were all the same to him in the eating. This shows, what has been taught for years, that the sense of smell has most, if not all, to do with our taste for different kinds of food.

A. J. COOK.

Notes.

A supply of apparatus has just been purchased for use in the botanical laboratory, including a sterilizer and other accessories for bacteriological investigation. Mr. E. A. Holden, '89, under the direction of Dr. Beal, has taken up a line of bacteriological research.

The seniors are studying corn-smut and other parasitic fungi which decrease the value of our orchard and farm crops. Cultures of the spores are made and their germination and action upon the hoste plants carefully observed by each student. Many points of the life history of these fungi are unknown, thereby making their extermination difficult. Various healthy plants and shrubs have been placed in the Botanic Garden to be inoculated with different fungi next spring, that their action and growth may be thoroughly studied. It is hoped that important additions to our present knowledge of the subject may follow.

The extreme heat of September matured the tropical grasses on the farm plats, under charge of the Botanical Department, putting them in a fine condition.

The Botanic Garden is being enlarged to twice its present size. Hereafter the plants will be grouped in masses, to give a better effect and afford material for study.

We clip the following in regard to the Texas Agricultural and Mechanical College, from a letter, published in the *Tecumseh News*, written by L. H. Dewey, '88, while travelling in the Western States last summer. "This institution is modeled very much after the plan of the Michigan Agricultural College, but it is several years younger and has yet to be improved a great deal to bring it up to the standard of the Michigan mother of agricultural colleges, unless our northern advocates of ignorance continue their course of the last legislative session. The strict military discipline of West Point is maintained here and instead of the 'Michigan Idea' of out-door exercise at work on the farm and garden they have an increased amount of military drill which accords well with the military spirit of the South. They drill under the lone star flag of Texas and their college yell is the rebel yell their fathers used twenty-five years ago."

Prof. Henry Thurtell has resigned his position as Assistant Professor of Mathematics to accept a professorship at the Nevada State University at Reno. He is well fitted for the position as his success here amply demonstrates. He left for his new field of work Sept. 27.

It is expected that we will soon have indoor target practice in the armory. Several steel targets will shortly be procured.

THE SPECULUM.

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AGRICULTURAL COLLEGE, OCT. 10, 1891.

In an editorial of the *Michigan Farmer* of July 18, 1891, can be found the following statement: "From students we learn that the labor department is a humbug as conducted; that any student working faithfully during his two hours is at once notified by other students that he must stop, as they will not have their work measured with his. If the remonstrance is not heeded, then a system of hazing and boycotting was introduced which soon brought the refractory student to the terms of his persecutors."

The Students' Organization, knowing the above statement to be entirely erroneous and without foundation, as well as some other statements in the same editorial, appointed a committee to confer with Mr. Gibbons, editor of the *Farmer*, and ask him to visit the College, make investigations as to the truthfulness of his statements, and see things as they are and not as he hears, the students offering to bear all expense of such investigation.

On July 25, 1891, the committee sent the following letter:

AGRICULTURAL COLLEGE, July 25, 1891.

ROBERT GRISCOM, Detroit, Mich.:

Dear Sir—In an editorial of the *Farmer* of July 18 we find the following statement: "From students we learn that the labor department is a humbug as conducted; that any student working faithfully during his two hours is at once notified by other students that he must stop, as they will not have their work measured with his. If the remonstrance is not heeded, then a system of hazing and boycotting was introduced which soon brought the refractory student to the terms of his persecutors."

Now, sir, from our personal knowledge as students of the Agricultural College, we pronounce the above statement as entirely erroneous. It does not correctly represent the attitude of the students toward the labor system as now conducted. The students as a rule are earnest in their work, and he who is faithful is always respected for it by the students.

There is also in the same column the statement: "Then the professors in several departments have done their best to lead special students away from the agricultural course, urging they were 'too smart for farmers,' and they should not become moss-backs." We do not know of a single professor who holds any such attitude toward the agricultural course, or who in any way endeavors to lead students away from the farm.

Your statements above quoted cannot be based on your personal knowledge of affairs here, for if we mistake not you have not visited the College recently, and so cannot have obtained your knowledge from personal observation.

We do not like to believe that the editor of the leading farmers' paper of the State would knowingly misrepresent the only farmer's college in the State, especially in regard to the vital subject of its relations to labor.

But from the errors concerning the college and the labor system which appear from time to time on your editorial page, we are convinced that at least your sources of information are untrustworthy. Therefore that the truth may be known to you, and through you to the farmers of the State, the Student's Organization of this college, consisting of the whole student body, cordially and urgently invite you to come to the college to make a thorough personal investigation of the labor system as now carried on, and also of any other department of the college you desire, taking enough time to give a thorough inspection.

We pledge you every facility for such an examination, will pay the entire expenses you may incur, and only ask that you report to the public, through the *Farmer*, the candid results of your investigation, whatever they may be. We ask this as a favor from you. In our opinion we might demand it as a right, but we simply ask you because we feel that a visit may be helpful to us by giving you a different view of

things here. We trust that you will accept this invitation at as early a date as is convenient to you, and hope at least that our committee shall receive a reply from you speedily. We do not want you to think that we are trying to force any unpleasant situation upon you.

We make a fair proposal to you, we trust the truth knows, and we believe you will stand our testimony the respect due that of eye witnesses.

E. W. PEER,

Chairman of Committee.

Receiving no response, the committee wrote again September 8, stating that the students were serious in the matter and wished a reply. Finally, September 12, the following communication was received:

OFFICE OF MICHAEL FARMER,

DETROIT, Sept. 12, '91.

MR. E. W. PEER,

Chairman of Committee,

Agricultural College.

DEAR SIR—Your note of 8th inst. reached this office during my absence, hence the delay in answering it.

I had previously read your report of the action of a number of the students of the college, requesting me to visit that institution, investigate its workings, and report thereon.

Will you pardon me for calling your attention to the fact that I have no controversy with the students of the Agricultural College, nor do I know of any reason why I should have. It is true I have seen fit to criticize the management of the college in some particulars, and this has led to a controversy with some members of the Faculty and the State Board of Agriculture upon these points. As they alone have the power to provide a remedy for the mismanagement complained of, I cannot see what could be gained by accepting your invitation. If your committee had the management of the college in charge, I should be much pleased to meet with its members and discuss the points at issue. As this is not the case I feel constrained to decline your invitation.

I am, sir, very respectfully yours,

ROBT. GRISCOM,

Editor Michigan Farmer.

The editor states that he has no controversy with the students of the agricultural college and sees no reason why he should have. Neither do we see any reason why he should have, but what he states that student labor is a humbug as conducted, and that a system of hazing and boycotting is introduced to stop a faithful student from work shows that not the best of feeling exists. This is a slur upon the students and we declare it to be entirely false. The fact

is, nearly every student on the farm takes an interest in his work and is anxious to see his experiment successful.

We as students of the Michigan Agricultural College, knowing the aforesaid statement to be entirely false and feeling that the college is being misrepresented to the people, submit the above account to the public and let them decide whether or not we are being justly criticised.

WHAT is the matter with the Military Department! The cadets do not seem to take the interest in drill they should. They drill as though it was a bugbear on their college course. Part of a company are dressed in full uniform, part in citizen's clothing and the rest in a mixture. If we are to have military drill in this institution, why not carry it out strictly military! Every cadet should be required to wear a full uniform and at the sounding of the call, to fall in neat and orderly. If every cadet was made to drill strictly according to military rules, made to carry on good conduct under severe penalties, the military offices, if received according to merit, would be more honorable and desirable positions and we warrant more interest taken in drill. True we cannot expect to drill as they do at West Point or Orchard Lake, but there is no reason why it cannot be made more interesting. "What isn't worth doing well isn't worth doing at all" can truly be said of the Military Department.

Too much praise cannot be given to the college orchestra. Every member of the college should take every opportunity to encourage their good work. We have had a band several times and a drum corps but none were successful for any length of time; now we have an orchestra of ten pieces of which we are all proud and it must be kept up. And in order to do this the members must be well paid for their labor as it takes considerable amount of time for practice in order to appear well in public. We are

pleased to know that the State Board made them one small appropriation which was used in procuring more music. We only wish that these appropriations will be kept up and that good music will be furnished at all college exercises.

No reader of THE SPECULUM should fail to read the oration in this issue. It is full of patriotism, sound sense and deep thought.

COLLEGE NEWS.

The college orchestra has been reorganized.

The Botanic Garden is being greatly enlarged.

The wife of Hon. Franklin Wells is dangerously ill.

Quite extensive repairs are being made on the farm barns.

Professor Vedder and family have arrived at the college.

Many visitors were on the grounds during the week of the State Fair.

Considerable of the Page woven wire fence will be put up on the farm.

F. B. Mumford has been secured as assistant in the Agricultural Department.

E. A. Holden, '89, is taking a post graduate course in Agriculture and Bacteriology.

Geo. A. Waterman will assist Dr. Grange during the veterinary dissections this term.

The Horticultural Laboratory and the greenhouse will soon be connected by telephone.

Miss Gussie Hillyer and Miss Devendorf of Grand Rapids visited friends here, Sept. 25.

Dr. E. A. A. Grange was called to Presque Isle county on a professional visit, Sept. 22.

President Clute will visit the Agricultural College at Guelph, Ont., in the course of a few days.

All college duties were suspended on September 10, that all desiring to do so might attend the State Fair.

Prof. Thomas Shaw of the Agricultural College at Guelph, Ontario, spent a day here a short time ago.

Several new and valuable instruments have recently been purchased for use in the Mathematical Department.

The annual contest of the Agricultural College Oratorical Association takes place on the evening of October 30.

At a recent meeting of the State Board G. C. Davis of the Entomological Department, was treated to a raise in salary.

The State Board has appropriated \$500 for the purchase of books to be used in the department of English Literature.

C. L. Harris, a graduate of this college and for several years superintendent of schools in Louis County, paid the college a short visit recently.

Mr. C. F. Wheeler of the Botanical Department recently went to Grand Rapids to examine the herbarium of the Kent County Scientific Institute.

R. L. Eggerfield has arrived to begin his duties as assistant secretary of the State Board of Agriculture. His many friends welcome his return with pleasure.

The *American Agriculturist* for August contains a short biographical sketch of Dr. R. C. Kedzie and the September issue a similar account of Prof. W. J. Neal.

The plant for hot water heating has been put in the south end of College Hall. Similar systems will also be put in the president's house and the Horticultural Laboratory.

Among the interesting things to be seen on the Horticultural Department are forty varieties of carnations which are being tested and over thirty varieties of iris roots.

Thomas Gannon has been appointed foreman of the Greenhouse by the State Board. He is well qualified for the position having had several years experience in such work in Scotland.

Anyone having a copy of the *Speculum* for June, 1910, which they are willing to dispose of can do so by mailing J. E. Hinkson, Business Manager. This number is needed to complete the file.

Howard J. Hall is the latest of our assistants to receive a position in the Western States. He will have the entire charge of the Preparatory Department of the University of Arizona at a salary of \$1,000 per year.

The Botanical Department will soon receive samples of the seeds of about a pair of our common weeds and grasses. They are to be used in identifying the many unknown specimens which are received here from everywhere.

The family of Prof. Brackenridge have moved on the grounds and taken up their residence in the cottage recently occupied by Prof. Durand. In the early history of the college this same house was occupied by President Williams.

The Junior ball given on the evening of September 23 was quite largely attended. The Juniors certainly have reason to feel proud of the success of their entertainment, as the affair was pronounced by all present to be one of the most pleasant that has taken place here in several years.

President Sims and Hon. Henry Chamberlain visited the experiment station in the northern part of the State, Sept. 27-28. The late frosts and the severe drought have considerably damaged the growing crops. The experimental grass plots at Grayling are reported in fine condition.

President Sims, accompanied by Messrs Chamberlain, Dutcher and Phelps, of the State Board of

Agriculture, visited the experiment station at South Haven, October 7. The work there under the direction of T. T. Lyon is progressing nicely. The fruit crop is reported as being unusually good.

The oak tree caterpillar, *Balsania albifrons*, which has been so common in some localities as to completely strip the trees of their leaves, has appeared here. They evidently realize that they belong to the Entomological Department, as many of them have been seen crawling up the steps towards the laboratory.

Farmers visiting at the college have at different times expressed more or less dissatisfaction with the stock in the college herds. It should be understood that it is not the policy of the institution to become breeders of any particular line of live stock, but rather to keep representative specimens of all of the leading breeds.

At the State competitive drill which was held at Jackson, Sept. 9-10, the college cadets won prizes amounting to \$325, taking first place in the military drill (companies never having won a first prize), and third in the regular infantry drill. The boys were highly complimented for their good appearance and gentlemanly behavior during the whole time.

Prof. L. E. Taft, L. D. Washburn of Manchester and Hon. C. W. Garfield of Grand Rapids attended the meeting of the American Fecundity Society at Washington, where Professor Taft presented a paper on "The Physiological Effects of Fasting." On the evening of September 23 they attended a reception given by Assistant Secretary White to the Michigan Agricultural College Alumni reading in Washington. About fifteen were present, including several who had graduated many years ago. An Alumni club was organized with Donald McPherson as president and W. A. Taylor as secretary.

During the first part of the month the college received a visit from Mr. Joseph Warrington of the Department Station of Lutetia St. Gilbert at Rothamstead, England. While here Mr. Warrington gave a very interesting lecture on the work that is being done at Rothamstead. This station is the oldest and most thoroughly conducted of any in the world. The results of experiments are to be found in a series of books which have recently been added to the college library. Mr. Warrington visited all of the departments of the college and in particular those connected with the Experiment Station. He expressed some surprise at the number of species and the purity of the grasses to be found in the "delta."

A few weeks since our regular professor of agriculture, Prof. Eugene Davenport, was tendered the presidency of the new Agricultural College of Brazil, at a salary of \$6,000 a year. This offer was the result of a visit to this college by a Brazilian gentleman, who was looking for a suitable man for the position. After much careful deliberation Professor Davenport decided to accept the offered position and accordingly placed

his resignation in the hands of the State Board. The professor's success here has been something wonderful. Under his careful, earnest and energetic management the Agricultural Department has come to be one of the most popular and instructive in the whole college. In the class-room he is a fascinating lecturer and a thorough instructor and as such he always commands the highest respect from the students under his charge. Prof. Davenport has completely revolutionized the manual labor system at this college. He believes that to be of any practical benefit the labor must be of some interest to the students, and that to be of interest the work must be such that the student can see the ultimate results of his labor. During the last year all students working in his department have had almost the entire charge of the experimental work. At the beginning of the season each was assigned some particular experiment, and was expected to conduct all of the work throughout the year. With scarcely an exception the work has been so cheerfully and earnestly performed that it would seem that the troublesome labor question had at last been solved. While we, as students, appreciate the esteem in which our professors are held by other colleges, yet we see no reason why such a wealthy State as ours cannot afford to retain them.

We are indebted to Mr. L. A. Clinton for the following in regard to the Northern Experiment Station:

The problem presented to the northern experiment stations is one, the successful solution of which means the reclamation of from 5,000 to 10,000 square miles of land, at present almost worthless for agricultural purposes. The soil is what is known as the "Jack Pine plains," and is light, porous and sandy, almost devoid of organic matter. For years it has been burned over annually, and what organic matter might have been added to the soil has been consumed. Four stations, located at Baldwin, Walton, Harrison and Grayling, are now endeavoring to devise means by which this soil may be made valuable for agricultural purposes. Attempts have been made to grow clover, but so far the results have been anything but flattering. All the prominent native grasses, and many foreign ones, have been introduced, but owing to the dry summers and the frosts they have failed to come to maturity. At present a grass plot at Harrison, consisting of a mixture of clover and timothy bids fair to give the best results so far obtained from any of the grasses. The past season has been especially unfavorable for the growth of all crops, owing to the dry weather and the early frosts in July, yet the results obtained have not been entirely discouraging. At Baldwin and Walton the same crops were tried, viz., peas and spurry. Both germinated well and gave evidence of success. At Walton but little rain fell during the early part of the summer, and the success promised at first failed to be realized. At Baldwin more rain fell, and both peas and spurry made a good growth. At present both stations have been seeded to rye, which is growing well, and will be used for

green fertilizer the coming season. The only attempt at cropping was made at Harrison. Here four acres of land were cleared, thoroughly plowed, harrowed and planted. The growth made was all that could be desired. Corn and potatoes were doing especially well when the July frost came and practically put an end to the experiment for this season. Some of the potatoes were allowed to remain to see if they would recover from the effects of the frost, which they did. When dug they yielded about 100 bushels per acre of as fine potatoes as one could ask for. The experiments have not been conducted long enough as yet to warrant the drawing of any definite conclusions. They have shown, however, that intensive farming in the full meaning of the term is the only thing that can make the land productive. The error into which most of the farmers of the region, and the experiment station as well, have fallen, is the attempt to cultivate too much land. The subjugation of the land is expensive, and by confining the energies to a smaller area, and cultivating that thoroughly, better results can be obtained than by attempting too much. Nearly the same problems are presented at Harrison, Baldwin and Walton. Soil and climatic conditions are the same. As at present conducted each station is expensive, and difficult for it to have the personal supervision of one qualified to conduct the experiments. While the extensive system of farming is practiced in this country as generally as at present it is probable these lands will not be brought under thorough cultivation to any great extent. When intensive farming shall become necessary then will these lands, at present considered almost worthless, be made to support their millions.

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.

The above paragraph has appeared so often and has been so uniformly overlooked, that we doubt if one in fifty can tell its tenor now until he reads it, but the board of editors mean it now just as much as they ever did. The personal department is so exclusively the department for alumni and depends so entirely upon their contributions that it is and can be just what they make it. The editor may send out scores of requests every month, but he cannot compel answers, and only these can make the department of interest to alumni.

The members of the earlier classes are apt to complain at the dearth of news for them, but of nearly thirty requests mailed during the past month, less than half a dozen have received attention and, shall we say it, all of these were from the later classes. Be

assured the department will be but too glad to insert all items of any interest to its graduate friends, but such items cannot be manufactured here.

Many send us personals often, without waiting for invitation and such have the editor's sincerest thanks. His only hope is that the number may grow as rapidly as possible.

What would our western colleges do without M. A. C. to draw upon? Notice the faculty rolls of the three following: North Dakota Agricultural College, T. D. Hinman, '82, C. B. Waldron and H. W. McArdle, '87; Nevada University, R. H. McDowell, '74, F. H. Hillman and Henry Tharrell, '88; Arizona Agricultural College, F. A. Gulley, '82, C. B. Collingwood, '85, Jas. W. Tourney, '89, and H. J. Hall, '90.

Dr. Beal will have charge of Michigan's forestry exhibit at the Columbian Exposition.

'61.

Prof. A. N. Prentiss, of Cornell, passed his vacation in Italy and has returned much improved in health.

'67

David Strange made the college a visit Oct. 3d. He reports a very successful and profitable year on his Grand Lodge farm.

'68.

Director S. M. Tracy, of the Mississippi Station, is to have charge of Alcove V, Botany, in the co-operative experiment station exhibit at the Columbian Exposition. The exhibit of roots and root developments, he has placed in charge of our own botanical department.

'72.

Gen. Chas. W. Garfield, in company with Prof. Tait, attended the biennial meeting of the American Pomological Society at Washington, during the past month.

'72.

Geo. D. Moore, on the executive committee of the State P. of I. Lodge, met with his brother James in Lansing a fortnight since.

'74.

Chas. L. Fennis, superintendent of the Ionia schools, lately visited the college to study the best methods of teaching the natural sciences in the schools under his charge.

'76.

W. W. Burns is superintendent of schools at Carman City, Mich.

'78.

Geo. E. Breck has but recently returned from England with a large importation of Shropshires and has during the past week held a sale at his farm near Paw Paw.

Much to the regret of board, faculty and students, Prof. Devanport has resigned his professorship here to begin his new duties as president at St. Paul, Brazil. An informal farewell reception was held at the agricultural laboratory on the evening of September

30th, at which time the students of the regular course presented the professor and Mrs. Devanport with a silver tea service. They sailed from New York October 7th.

Rev. H. V. Clark has left the pulpit temporarily to take special work at Adrian College. He will take the degree Ph. B. there next commencement and will have nearly secured the degree of E. D.

Henry F. Baskirk was lately severely injured by a runaway team near his home at Wayland.

'81.

J. L. M. Knight sends a very neat and complete catalogue of Poland China sows sold at his "Pleasant Hill" stock farm, Lee Park, Neb., Oct. 7th.

'82.

E. N. Ball renewed fraternity acquaintances at the college during the week of the state fair. He owns a stock farm at Hamburg and has been for five years secretary of the Michigan Merino Sheep Breeders' Association.

At the 30th annual session of the Michigan Grand Lodge, I. O. G. T., held at Petoskey, September 20th, 21st and 22d, W. L. Snyder of Detroit was elected Grand Chief Templar, and Albert Dodge of '77 was reelected Grand Secretary.

'83.

Frank Rogers is now city engineer at Port Huron.

With '83.

Out of the depths of his sympathy as a brother editor, Rob. H. Baker sends the following concerning himself and his doings. "You may say what you wish in regard to my being in editorial charge of the Union City Register. Was for two years editor of the Industrial Reporter, published by the Hammond Iron Publishing Co., and utilizing the resources of leading cities of the Union. Besides writing to a number of Michigan cities, I visited Denver, Omaha, Sioux City, Cedar Rapids and other western places. Was a special at M. A. C., entering in the spring of '81."

'84.

After spending over two years in Los Angeles, W. C. Stryker returned to his old home in Dayton, Mich., where he has since managed his father's farm. On Christmas last one of the daughters of the Golden State returned to share his home. His record for wheat this year is about thirty bushels per acre for a crop of seventy acres.

'85.

F. L. Chappell was lately admitted to the bar.

E. B. Lake has resigned his professorship at Corvallis, Oregon, to assume the management of *Fruit and Flowers* at Vancouver, Washington.

E. H. Smith, druggist and postmaster at Swartz Creek, made the college a short visit, September 10th.

D. J. Stryker has just completed his third year as salesman and collector for J. C. Ayer & Co. His routes lie through Kansas and Nebraska. He is said to be accumulating all the flesh that his six feet two can conveniently carry.

R. M. Bates, LL. B., in '87, has concluded to forswear the law for the more peaceful occupation of farming. He has two "freshmen" under his paternal instruction.

'86

E. A. Whitney died at the home of his brother in St. Louis, Mich., Wednesday, Sept. 23d.

After taking his degree at the college, he studied law with his brother, T. W. Whitney, and was admitted to the bar in 1887. He at once began the practice of his profession at Frankfort, at the same time assuming control of the *Frankfort Express*. The following year he was elected mayor of Frankfort, and also a circuit court commissioner. He remained at Frankfort until the close of 1896, when he accepted the position of attorney for the Huron Bay and Iron Range R. R. Co., and removed to Arvon. In September of the present year he removed to Chicago to continue his practice, but was taken ill almost immediately, and with difficulty reached his friends at St. Louis. His business life, like his college career, was a marked success, and many of his student friends will join in tendering sincerest regrets to his wife and friends.

WITH '86.

Married at Elkhart, Ind., September 14, Miss Hermione Fisher and Guy Osborn, both of Chicago. They will reside, temporarily at least, in Elkhart.

'87.

W. C. Hall made his brother a short visit at the college, Oct. 2d.

F. R. Smith has the management of a 1,100 acre farm at Somerset.

'88.

C. H. Redman, with the city engineer of Grand Rapids, is arranging to take an advanced degree at his Alma Mater.

Henry Thurtell left September 21st to assume his duties as Professor of Mechanics and Draughting in Nevada University at a salary of \$1,800.

'89.

E. A. Holden is taking special work in agriculture and botany for the degree of M. S.

Will Curtis, of Curtis Bros., editors of the *Kewanee, Ill. Star*, renews his SPECULUM subscription, urges the co-operation of classes in visiting the Columbian Exposition and proffers the aid of his trained editorial pen in the cause of better salaries for M. A. C. professors.

E. N. Pagelson has decided not to accept the position offered him at Fort Collins, and has returned to his engineering work in Pineville, Ky.

WITH '89.

Lloyd Bartmess has given up marine engineering, has married and is now running the engines of a large saw-mill in Washington.

Austin F. Pettit is a prosperous farmer near Fayetteville, Ark. He is also a Benedict.

'90.

F. B. Mumford began work as assistant on the Farm Department of the college, September 25th.

Howard J. Hall has resigned his position here to accept the principalship of the preparatory department of the Arizona Agricultural College at a handsome increase of salary.

E. J. Rowley visited at the college September 9th to 12th.

L. W. Spaulding is at his home in Wayland having left the employ of the Centennial Copper Mining Co. at Calumet.

Wm. Petrie has been offered inducements by the Brush Electric Co. which will probably alter his decision to attend Cornell this year.

Miss Jessie Beal is visiting Battle Creek friends for a few weeks.

'91.

Miss Jessie J. Foster left September 10th for a year's study at the Normal School. It is reported that she was employed during a part of her vacation as chaperone of a small party to Niagara Falls; the remainder was passed with Detroit friends.

K. L. Butterfield assumed his duties as assistant secretary of the college, October 1st. He succeeds J. N. Estabrook '88, who is now with Gebhart and Estabrook, East Saginaw.

WITH '91.

Several college friends have received the following: Mr. and Mrs. Edward Reynolds announce the marriage of their daughter Mattie to Mr. Chas. De Witt Colby, Wednesday, September 23d. Spring Arbor, Michigan. "Oak Lawn."

WITH '92.

Jas. W. Lamb is employed in the Oneida National Bank at Utica, N. Y.

ATHLETICS.

The ball game which took place on the grounds Sept. 19, between the Ionia and home teams resulted in the following score:

	Total
M. A. C.	1 0 0 0 0 4 2 2 9
Ionia	1 0 2 0 0 0 1 1 3

Struck out by Burnett 15; by Wiggins, 9.
Bases on balls, Bateman, Bauerle; base hits 5, made by Burnett. Umpire, Douglas of Ionia.

The students will hold a local field day on the college grounds on Oct. 17th, in which there will be contests in nearly all the sports of our regular inter-collegiate field day. The results of this are looked to with considerable interest, as they determine in a de-

gree the athletes who will represent us during the coming year. Such sports as the bicycle race, broad jump, high jump, etc., will be handicapped, thus giving new contestants the advantage, and inviting all students with the slightest athletic enthusiasm into the field of contest. This is the third local field day held by the college, the first being last spring, and well represents the growth in college athletics here as elsewhere, which has been so marked during the last few years.

Though the quarter mile track is not yet begun, work will commence soon, and the track will be ready for use by the end of this term.

COLLEGES AND EXCHANGES.

The Illinois State University is to have a new \$7,000 natural history building.

Vassar graduates are said to make the best presiding officers to be had for women's organizations.

When a young lady attends an evening party she ought to have a chaperon, not! she is able to have a chap-of-her-own.

Dr. Mayo is the owner of a new horse and buggy which he manages to keep in use quite regularly this fine weather—*The Industrialist*.

The Detroit minister, who has married three couples on a railway train, thinks of taking out a patent as a car couplet.—*Ex.*

The Hillsdale College *Herald* was published regularly during the summer vacation. It reports that college there began September 3 with a good attendance.

The *Noire Dame Scholastic* is one of the best college papers of the country. The September 25 number contains an able written article on "Duties of Students."

Co-education was not thought of a century ago. Now of the 366 colleges of the United States 200 are co-educational. Women at present constitute more than half the under graduates in this country.

Rules for punctuation: When you read until you have to draw breath, put in a comma; when you yawn, insert a semi-colon; and when you get awfully dry, make a paragraph; and when you go out to get it, put in a period.—*Ex.*

We have received only a limited number of exchanges and college news is at a premium. Now that the institutions that have been closed these last three months are open again we hope to furnish more news of what is going on in the college world.

"Good manners," says Dean Swift, "is the art of making those people easy with whom we converse; whoever makes the fewest persons uneasy is the best bred man in company." Dr. Johnson says: "Perfect good breeding consists in having no particular mark of any profession, but a general elegance of manners." Whoever has a good heart, a good temper, a fair education, and a proper amount of self respect needs no hints on the subject of etiquette. He is presentable anywhere. He may be unprogressive, but he will

never overstep the bounds of true courtesy.—*College of Commerce Journal*.

The *I. A. C. Student* of the Iowa Agricultural College contains a very scientific article on the "Typical Cow." It shows some of the benefits Agriculture Colleges are to practical farming. The following logical description is given. "The cow, generally speaking, is a species of the mule, that is she is an Ann-mule. Specifically speaking, she is herbivorous, horniferous, a quality which she seems to be losing, corniferous and female. Physiologically speaking she is composed of animal, vegetable and mineral, and besides containing all the component parts which go to make up animals in general, she has several extra sets of teeth, a few extra stomachs and a number of spare ribs."

IN KENTUCKY.

A mule he found

That day around,

And took it home of course,

It chanced that day

Extremity

Was fastened to a horse

The neighbors found

A rope around,

A tree's convenient limb

It chanced that day

Extremity

Was fastened on to him.

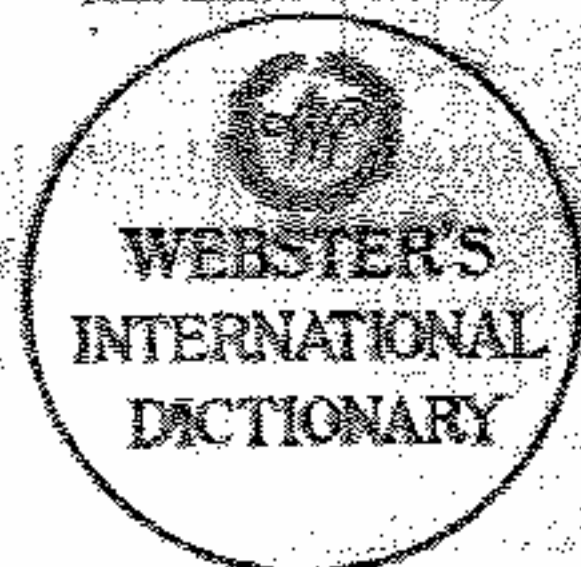
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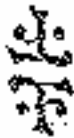
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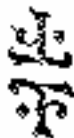
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