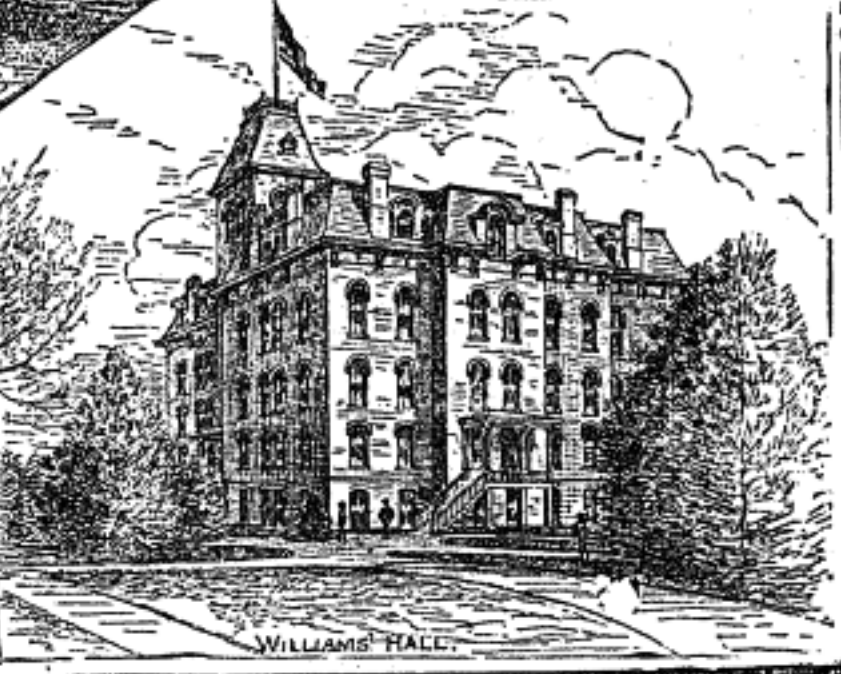
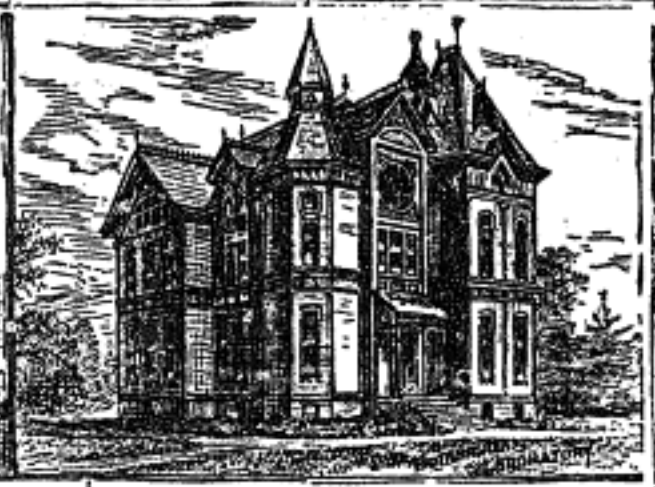
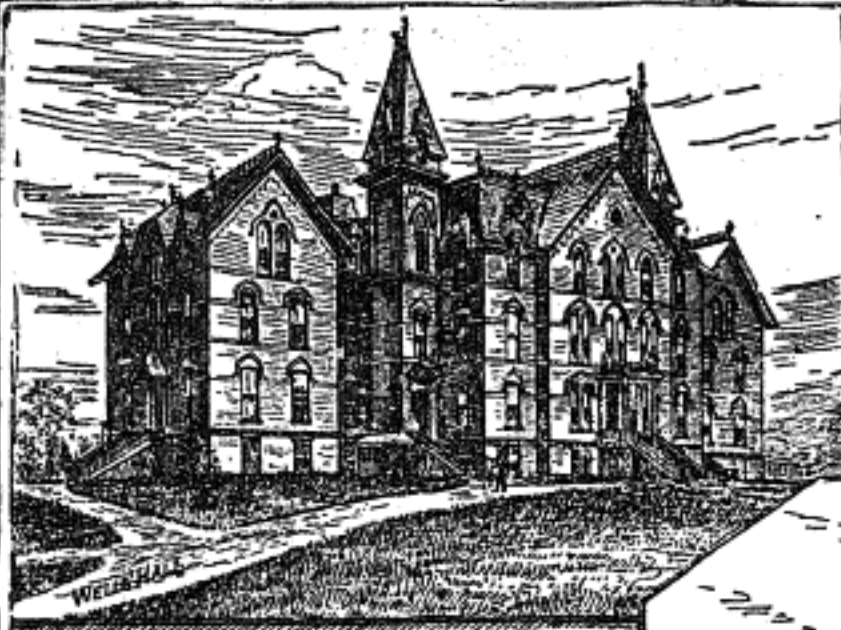


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AGRICULTURAL COLLEGE, MICH.



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WHOLE No. 24.

The Benefit Derived from Reading Fiction.

W. A. TAYLOR, UNION LITERARY SOCIETY.

The opinion holds with a large class of people that the reading of fiction is injurious. For proof of this, they refer to the injury done to youthful minds by the cheap literature of the day. When a novel reading boy organizes a band of burglars or goes west to fight Indians, they see at once the direct result of the pernicious influence of novel reading. Having by such examples proved to their own satisfaction the danger of indulging in a pastime so injurious, they see no way of escape except total abstinence from novel reading. The cloud of fiction which darkens their sky has for them no silver lining. They see the occasional lightning flash with its seared and blackened victims, but take no notice of the refreshing showers which the same cloud is furnishing.

This mistaken opinion concerning fiction may be traced to several causes. The opinions of people in general are formed as a result of limited observations. If the first examples seen by them of the workings of a system give an unfavorable impression, they are slow to change the opinion, even though many later examples may indicate the fallacy of that opinion. They notice all effects which seem to prove their theory and let other effects pass unnoticed. The boy who seems to have been led astray by the novel may have been influenced by other causes. Unwise home training or the influence of evil companions with whom he has been thrown in contact may have caused his downfall. When he falls, they find it easier to lay the blame to the books he has read than to accept and acknowledge a just criticism of their own conduct.

Another class of people while acknowledging that fiction does not injure the mind, look upon it as of no value except for recreative reading; they value such reading just as the business man values his daily ride. It is useful because it breaks up the routine of daily work and gives a needed recreation, not because it furnishes anything of value in itself. If there were no other benefit than this the reader would be well paid for reading an occasional novel. That relaxation which must come after severe mental work can not be more profitably employed than in the reading of a good novel. In following the story the mind is led out of its accustomed ruts, is rested, and when work must be taken up again is ready to take hold of the task with renewed vigor.

The reading of fiction simply for recreation is, however, one of its least valuable uses.

The thoughtful reader of fiction gains much historical knowledge from the novel. The great novel writers possess a power of analysis and a clearness of expression which few other writers attain. The interest of the reader is held by the gradual development of the plot and his mind is open to receive and retain clear impressions concerning historical events and characters. A careful reading of *Uarda* or of *An Egyptian Princess* will give one a clearer idea of the habits of life, the manners and customs, the religious beliefs and the scientific advancement of the ancient Egyptians than will days of poring over ancient history. *The Last Days of Pompeii* will help one to understand much in Roman history which would otherwise pass unnoticed. *Kingsley's Hypatia* teaches us more concerning the monks and the religion of the fifth century than volumes of ecclesiastical history can furnish. Obedient to the magic pen of the novelist the men and women of history take on flesh and live again. Their words are understood by us. Their joys and sorrows are met by answering emotions in our own natures. Their virtues arouse in us a desire to become better. Their vices are no less repulsive than the same vices seen to-day.

In painting and interpreting contemporary character the novel is without a rival in literature. No learned essay or dissertation, however complete in its makeup or correct in its details, can convey the impressions which personal contact gives. In the novel the reader comes in contact with persons as real as those whom he meets in every day life. He can, indeed, more accurately estimate the value of their various qualities than if he were thrown into actual contact with persons, for distracting features which might lead the attention away from the real underlying principles of character are kept concealed or are shown in their true light. It is this ability to convey impressions that gives to fiction much of its power and causes it to be used as the medium of communication between great thinkers and the people they hope to influence.

What Northern man understood the real surroundings and sufferings of the slave before reading *Uncle Tom's Cabin*, or the difficulties to be overcome by the freedman before reading one of *Tourgee's* novels. Even the sympathy which some writers awaken for people who are suffering because of sins committed by themselves is not wholly bad in its effects. No man will be more likely to sin because he has sorrowed over the fall of *Tito Melema*. No woman will be less

chaste for sympathizing with Maggie Tulliver. Sympathy for sinners seldom leads people astray, and it often enables them to aid their fallen friends.

The greatest benefit to be derived from the reading of fiction lies in the cultivation of the imaginative faculty. Strange as the fact may seem, there are many people who look upon the imagination as a thing of little importance in this busy world. They can not see how a strong imagination can be of use to any one but a poet or an artist, and many assert that the possession of such a faculty is a hindrance to success in the common walks of life. They forget the clear imagination of the inventor and remember the addled ideas of the unbalanced crank. The imaginative faculty, when properly applied, is one of the most useful attributes of the mind, and as such we can not afford to slight or starve it. Nourishment is as necessary to the mind as to the body. For some minds history and biography may furnish the required food, but for many readers these are so dry as to be unpalatable, and consequently not valuable. Such minds must be strengthened and nourished by a food more to their liking. The boy who remembers nothing of his yesterday's history lesson can repeat in detail the story which he read a week ago. A vivid imagination is absolutely necessary to the speaker or writer, for he must be able to place himself in the position of his hearer or his reader if he is to impress on their minds the thoughts which he desires them to remember. The lawyer who can not see in its clearest light the case of the opposing counsel will be but partially successful in his pleading. The surgeon who can not, in thought, place himself on the operating table and bear in part the sufferings of his patient will not accomplish the best results in his practice. Even in so prosaic an occupation as money making, the business foresight which we hear so much about, is nothing more than a practical imagination trained to work in a certain line and made to do the bidding of its master. The real estate dealer sees near a city a tract of land almost worthless. In his imagination he sees its marshes drained and cultivated and covered with beautiful gardens, its higher portions occupied by residences or traversed by busy streets. A few well directed efforts accomplish the desired result, the imaginary becomes real, and his pocketbook as well as his mind is benefitted by his imagination.

Because some people have been injured by the reading of flashy novels the intelligent reader should not neglect or avoid all fiction. Food injures the glutton, and excessive economy the miser, but men still eat and economize, and in the main are benefitted by so doing. For the sake of historical knowledge gained, for the insight into human character and for the cultivation of the imaginative faculty the general reader should give much attention to fiction.

The Indian population of Canada numbers 124,748. There are 5,595 pupils in the Indian schools.

A Vigorous Will Power is Essential to Success.

W. L. ROSSMAN, DELTA TAU DELTA FRATERNITY.

The power of will is possessed by all persons to a greater or less degree and varies in different individuals from almost a total absence to a vigorous activity. It is only those persons, however, who have a vigorous will that are able to overcome the trials and battles of life.

The will is the ruler of the man. It governs all his actions. It is that power by which he is enabled to resist temptation and overcome obstacles. A vigorous will is as essential as unusual talent, while unusual talent without a vigorous will, is valueless. Unusual talent has never been ascribed to Grant. His success as a general was due to his power of sticking to a thing; to his power, after having once determined upon a course, of "fighting it out on that line if it took all summer." It was not talent by which Cyrus W. Field, after having met with two failures to lay an Atlantic cable, was able successfully to perform the third. It was a will which would allow no hand to rise between it and its cherished object.

All the moral and intellectual faculties are dependent upon the will for their strength. Of what use is judgment, or any intellectual faculty, without the will power to carry the fruit of those faculties into effect. That the will is the guardian of the moral faculties can be seen from every day experiences. What person who has the habit of using tobacco or alcoholic stimulants was ever heard to advise any one to follow his example? Why cannot the young men of to-day profit by the advice and experience of others? Simply because their wills are not good sovereigns, and their appetites are disloyal subjects.

It is hard, in calm weather, to tell the difference between a house founded upon the sand and one founded upon a rock, but when the storm comes the occupants will very soon know the weak part of their structure. So with persons; so long as they have parents or friends to carry their burdens and fight their battles for them, the force of their will is not known; but when they start into life for themselves the storm comes and they either weather it bravely or are shattered in the gale. Then will be manifest their strength or weakness. Then is a vigorous will worth more than a sparkling intellect.

Great achievements are not accomplished in a moment. They require months or years of patient study. Then how can a person deficient in the only element of manhood which can give him the power of undivided and continued application, ever overcome those obstacles which always present themselves in the road to success? Without the will power and self-assertion of Washington, all the eloquence of Patrick Henry, or the genius of Franklin could not have effected the Revolution.

It is the testimony of Dr. Carpenter that all alcoholic stimulants act directly upon the will, placing it in such a condition that the faculties are not under its control for any exertion whatever. If this be so, and we can not well dispute such an authority, it explains why a man cannot use alcoholic stimulants and at the same time be successful in business. It is also a sign that when a man's will becomes so enfeebled that it has no power over the mental faculties, he ceases to be successful, and is overtaken by disasters which he is unable to foretell, because of his weak perceptive faculties occasioned by the loss of his will power.

There never was a time when it needed more endurance to stand at the head of a trade or profession than at the present. Every business is filled with men who are anxious to stand at the head, and who are willing to sacrifice pleasure and comfort, if it will contribute to their success. It is only those who have great endurance and a vigorous determination to succeed, that will not become discouraged by the unfavorable prospects which open before them.

As the engineer sets the engine in motion, so the will is the power which gives energy to the faculties. Though the engine may be perfect in workmanship, yet without an engineer it is powerless; so the mind may have well disciplined faculties, yet without a will they are useless. The cultivation of the will then, should receive a large share of attention. When this has been raised to a good standard we shall be masters of the situation in times of emergencies, and of ourselves in times of temptation.

Slavery.

J. A. SPENCER, OLYMPIC SOCIETY.

The word slavery, as commonly used, indicates a condition of servitude or bondage existing in the relation of one man to another; from a situation which such an interpretation would imply, escape may be effected by the individual concerned or by the aid of outside parties, and in many different ways; but the slavery that is the most to be dreaded, and which requires the most watchful vigilance on the part of all to avoid becoming one of its victims, is the kind which we find the most difficult to rid ourselves of, when once we are fast in its fetters.

Such is the slavery we yield to, such the servitude we groan under, when we make every action, and in fact our whole being subordinate to, and put them under the control of the human passions. Laws may be made, and are made, both by God and man, tending to suppress the evils that arise from ungoverned and uncontrolled passions; but how often are they totally disregarded by those who, even when the penalty is known to be ruin or death, commit such crimes and allow themselves to be carried to such excesses, that in contemplating them we cannot help shuddering at the

low and depraved state to which certain members of the human race can descend. And then to think that this condition of things has been brought about, simply because they have made passion their master, and yielded themselves his slaves! Instances which will illustrate this, occur to-day, have occurred in the past and will occur in the future. Alexander the Great, one of the bravest and most experienced of the world renowned warriors, was proof against the missiles, the cunning and the combined powers of men; but he, whom no outside danger could harm, succumbed at last to his miserable and excessive passions, which had so completely enslaved him, that his iron will, before which no other obstacle, however great, was able to stand, was bent under their sway as a broken reed before a strong wind. The fall of Napoleon I can be attributed to no other cause than that the spirit of ambition gained such an ascendancy, it was impossible to keep it within proper control; in other words he was hurried along in his career by a slavish passion, which owned no master, and which bound him in fetters strong as iron.

Man could not restrain him, imprisonment could not break his spirit, he was indifferent to all law; in short it seemed that no power could conquer him, and yet after all he was one of the most abject of slaves. Many other instances might be cited to illustrate still farther what a terrible task-master man subjects himself to when he follows passion as his guide, but this would not be necessary, for by careful observation, we are enabled to witness such cases every day. If this passion marks such havoc with the dispositions and the natures of men, and leads them on to commit deeds which in their cooler moments they would never think of attempting, it must be a tremendous urging force, and requires, in proportion to its power, a strong inflexible will to oppose it.

But Alexander and Napoleon were endowed with wills, the equal of which it would be hard to find. How was it then, that they fell so completely under the influence of their passions? I think it would be correct to say that when they were young, and the full development of their desires had not yet taken place, they either tried to control their feelings very little, or else they permitted them to grow as they grew, without any check or restraint, and at last, seeing the evil consequences that would inevitably follow if the indulgence was continued, attempted to bind them to this will, but found to their grief (for all great men with great faults have never failed to grieve for them) that over their own feelings and actions they no longer had control, and to continue as they had begun was their only course. We thus see the necessity of controlling self, not only in a few things but in every thing, and also the importance of exercising that function before our desires and passions become so fixed that to attempt it then would be useless. It is true that a great many deeds of note have been performed by men of strong and fiery natures, but there are few measures or actions

that have stood the test of time that were not accomplished by men, who, although they might, and for the most part did, possess strong and passionate feelings, yet they had them in such complete subjection, that forethought and reason could be exercised at will.

The conclusion we may draw from the foregoing remarks is, that as anger and fury blind us, gives the action a different coloring from that which it appears to a cool and calculating mind, and so often plunges us into excesses, the like of which we would never think of committing if viewed from a standpoint of reason. We had better so control our feelings and desires so as to unite the greatest amount of happiness with that of prudence and wisdom.

Athletics in Colleges.

D. P. YERKES, PHI DELTA THETA.

It is a question in the minds of many people whether athletics should occupy a more or less prominent position in our colleges than they do at the present time.

There is one class of people who care for nothing but books, and who think it is a waste of time to pay any attention to the wants of their body, as long as their mental wants are satisfied. There is another class who care for nothing but athletic sports, and still a third class who seem to strike an average between the two extremes and judiciously mingle their sports with their studies, so as to get the greatest possible good out of both. The latter is by far the largest class at the present day.

At the time that Greece and Rome were at their height, athletics were studied as a branch of art. Bodily strength and activity were so highly honored by the Greeks, that the athlete held a very eneviable position in society. There became attached to victory in one of their games so much glory that the townsmen of a victor were ready to, and frequently did, erect a statue to him, receive him in triumph and care for him for the rest of his life.

Some of the greatest men of those times, Plato, Pythagoras, Cleanthes, and others, took part in the athletic sports, and gained for themselves a considerable reputation as athletes. They pursued these gymnastic exercises, not as a profession, but for the sake of the exercise, so that their bodies might keep pace with their minds.

In more modern times it has been the practice, until quite recently, to take great pains in educating the mind and let the body take care of itself, and in consequence of this we have a great many men who are giants mentally, but who are physically not much more than infants. How many men there are who are mentally capable of occupying the highest positions which society has to offer, but whose bodies, to the development of which so little attention has been paid, are totally

unable to bear the strain. "The spirit is indeed willing but the flesh is weak."

Then again we may go to the other extreme, where we have the muscles developed and hardened to the utmost, while the intellectual faculties are allowed to lie dormant. We see men who pay no attention whatever to the cultivation of their minds, but who direct all their energies to building up and maintaining their already splendid physiques. If such men as these had minds in proportion to the strength of their bodies, what might they not accomplish.

In neither of these cases can man as "the noblest work of God" fulfill his highest mission. He can only do this by educating himself into symmetrical proportions. There is nothing that delights the human eye more than to see a well balanced mind and a strong and vigorous body united in the same person.

Why is it that so many of our college graduates leave their Alma Mater mere physical wrecks? It is because they have cultivated their minds at the expense of their bodies. They seem to have lost sight of the fact that there is something beside the intellect to look after, and that the term man, comprises a body as well as a soul. If the balanced relation existing between the body and soul is disturbed, neither can work to good advantage.

Look for an instant at the great men of history and you will see that they were great physically as well as mentally. Of course there are exceptions to this, as there have been great men who have had weak bodies, but how much greater might they have been if their bodies had been strong.

A man's powers should be all well trained, as it takes a great body to support a great mind.

Some persons, and especially some professors, are opposed to playing base ball. They seem to think that the students will spend so much of their time at it that as a natural consequence they will neglect their lessons. But even if this were the case it would be much better than taking no exercise at all.

Some of the best students are those who spend the most time playing ball and other games.

In the colleges of the East the men who carry off the class honors are almost always men who are prominent in athletic sports. The secret of all this lies in the fact that their outdoor exercise fills them with such vim and energy, and has such a refreshing influence on them that they can throw their whole power into the effort to learn, and of course the lessons are soon learned. They play hard and study hard. A student should have a certain amount of exercise, which should be according to some fixed rules and should be regular and systematic.

The most attractive kinds of athletic sports should be indulged in, as no person will work at that which does not carry with it a certain degree of pleasure or honor.

Such games as base ball, foot-ball, running, jumping, tennis and boating are the most popular with college

students. In addition to these every college should have a gymnasium where the students can spend a portion of each day, and in this way they can carry on their physical education independent of the weather.

Many students who go through their college course absorbed in their books and taking no part in athletic sports, will regret in after years their want of foresight in not laying a strong foundation on which to build their hopes of success. When they finish their course and become actively engaged in the battle of life, they will find that a strong and healthy body is no mean factor in the struggle for fame and fortune.

Education and Culture.

A. E. HART, ECLECTIC SOCIETY.

From the earliest times, two opposite forces have been at work, and each has been rearing a structure, but neither is yet complete. Enough, however, has been completed of each to enable us to understand something of their architecture, and to see their adornment. In one we find thus early, signs of decay; in the other, that each day adds some new and attractive ornament. In the centre of the landscape in which one is placed, the beauty is marred and disorder apparent. In the other all is harmonious, and the structure itself is the central object of beauty. Of one, ignorance is the builder; of the other, knowledge.

The subject of education has justly received much discussion, not only because it is the foundation of national prosperity, but because it is one of the most important questions to the individual. So we regard with a just pride, our American system of education because of its broad and democratic foundation, its idea that in order to be beneficial it must be universal. To the student who would be successful, no one word is of more importance or requires more careful study and thought than the word "culture." What is culture, and how can it be obtained, constitute vital problems, because on the student's definition depends his success. Too many make a great mistake in trying to divide life into two parts: one they call the period of education, the other of labor. This is not true. Life cannot be thus divided, and those who try to so divide it are never numbered as men of culture, because education is a life work.

Others think education is the mere cramming the head with facts, mere book knowledge and nothing else. It is true books play an important part in our education. Indeed, one of the most powerful and characteristic instruments of culture is to bring our minds into contact with all that is best and greatest in the thoughts, the sentiments, and the deeds of past generations of men, in order that these may melt into them and mould the character. But culture is not a product of mere study. Learning may be got from books, but

not culture. Culture is a more living process than this. We must mingle with our fellow-men; men whose minds and characters are fitted to instruct, elevate, and ennoble our own. Another thing required is the discipline which must be carried on by each man in himself; the learning of self-control, the formation of habits, the effort of overcoming the evil, and strengthening the good in our natures.

"The process of culture begins with the cradle and does not end with the grave."

Schools exist not merely to fit a man for a trade or profession, but to educate him for all time. That man who is not educated outside his profession is a mere machine, incapable of performing anything out of a certain, narrow, specified sphere. Our schools and colleges should urge us to seek a more harmonious development. More freedom from narrowness, more width of thought, larger sympathies and a higher ideal of life. We prize culture for its value in elevating the whole man. Every person, whether he is conscious of it or not, possesses an ideal, and our characters are largely determined by this. In reference to our ideal, culture does two things: First, it places before us a higher ideal at which to aim, and secondly, to train our faculties so that we may partially surmount the difficulties which lie between us and it. Culture proposes as its end the carrying of our natures to their highest development. Culture must embrace religion and end in it. Society is made up of many parts, and every human being was created to occupy a place in it. Therefore, whatever tends to develop and improve our faculties, train our mental powers, affections, and habits; whatever tends to better fit us to become a part of society, is culture. It has well been said, "The aim of culture is the perfection of our human natures on all their sides in all their capacities."

SCIENTIFIC.

How to Destroy Plant Lice.

Probably no family of insects do more harm to foliage than the aphides or plant lice. On indoor plants they are a constant source of annoyance and out of doors there is scarcely a green thing that entirely escapes them. Last summer the cherry leaves in this vicinity were literally black with these little pests, and for many years the snowball bushes have been so badly infested that the beauty of the foliage has been entirely destroyed.

All attempts to destroy the aphides on plants that curl their leaves as readily as the snowball, have heretofore proved futile, as the rolling of the leaf so thoroughly protects them that the insecticides can not be got to them.

Early in April of this year I found that certain snowball bushes on the College grounds had great numbers of the little shining black eggs of the aphid deposited

upon them. The thought struck me that possibly the trouble might be "nipped in the bud" by destroying the eggs. A kerosene emulsion, in which the kerosene was one-eighth of the entire mixture, was accordingly prepared and freely applied to the eggs. A few well treated twigs from this bush and an equal number of twigs from an untreated bush were taken into the laboratory and put in separate glass jars. In a few days the jar containing the untreated twigs was alive with the little lice, while only a solitary individual was ever found in the other jar.

This I take to be conclusive proof that the eggs of plant lice can be destroyed by a strong kerosene emulsion thoroughly applied. The treated bush suffered somewhat from the lice but not seriously, as the few that hatched were very soon destroyed by their insect enemies. On the last day of May I made a thorough search for lice and failed to find one on the treated bush, while they were easily found upon untreated bushes.

On Arbor Day I visited a neighbor's orchard, and found the opening buds of the apple trees actually black with the apple aphid, as many as fifty being counted on a single bud. On the following day I expressed to Prof. Cook my desire to treat one of these trees for the destruction of the lice before the leaves should get out to protect them, and while the lice themselves were of a tender age. We accordingly went on the following day and thoroughly sprayed the tree with a solution of whale-oil soap. Two or three days later I visited the tree, and in a count of two hundred found but one live louse.

I also experimented on opening buds of the snowball, treating them with kerosene emulsion and strong soap-suds applied with the Nixon atomizer. In these cases also the young lice were very numerous on the buds, and the benefits derived I think somewhat surpassed that derived from treating the eggs with the kerosene emulsion. The strength of the emulsion for the destruction of the lice was one-fifteenth kerosene. The whale-oil soap solution was made by desolving one-half pound of the soap in four gallons of water, and the soap suds by desolving one quart of soft soap in four quarts of water.

These and experiments tried last year later in the season lead me to conclude that the proper time to destroy plant lice is while they are yet in the egg, or else very soon after they hatch out and before the leaves roll to protect them.

C. P. GILLETTE.

The Tile Hat versus Baldness.

A writer in a recent number of one of our leading scientific magazines suggests a very plausible explanation of the common deformity of baldness, which should attract more than a passing notice from the present college student. Surely no one would argue that a bald head "is a joy forever;" nor is it likely that any

one with a good capillary covering would ever envy anybody who lacked this comely adornment. Many a man would dance with delight could he know how to avoid the unwelcome disfigurement of a barren crown. Indeed we rarely see a better illustration of hope and faith than in the commonly observed act of some bereft individual—desert crowned—purchasing bottles of "hair restorer."

It is a well known fact that professional men are far more frequently bald than are farmers and mechanics. While it is very rare to see a bald woman. It is also true that common baldness, that which does not arise from disease or an enfeebled condition of the body, is quite uniform in type: a hemisphere, bounded below by the circle where the hat rests, forms the cranial barrens with more or less marked oases just above the ears. When baldness results from sickness, there is no such uniformity.

The arteries, anterior and posterior temporal, and the occipital, which pass to the scalp, enter the enlarged papillæ or hair-bulbs, and nourish the hair; pass upward on the frontal and occipital regions just beneath the skin. Hence any compress upon this portion of the head closes these vessels, robs the hair of its nourishment, which at best is received through the slow process of osmosis, and what wonder that the hair ceases to grow, dies, and falls out. The crimson ring on the fair brow of senior and sophomore shows that the tile certainly does just this thing.

Thus we see that the tile and other stiff hats merit condemnation. As just suggested, the congested ring encircling the brow of one who has suffered the stings of outrageous tiles, bears witness to fatal strangulation of the hair on the uneasy head that wears the tile. It has been suggested that "ole Uncle Ned" was probably doomed to wear the cast off tiles of "ole Mas'r." The supra-auditory oases escape only because the temporal muscles prevent the damming pressure at that point. This theory explains why women, farmers, etc., are rarely bald, they wear soft head coverings. If, as has been suggested, a hard head covering indicates a soft head filling, would it not be wise and sensible to have the thing reversed?

ANTI-TILE.

Localization of Function in Brain.

In 1870 two German physiologists, Fritsch and Hilzig, taught for the first time that the parts of the cortical substance of the brain had each a definite function. Some portions, mainly anterior, were centres of motion, others more posterior were centres of sensation, while even before that it had been thought that a certain portion in the left Isle of Reil was the centre of speech. Since that time Ferrier, of England, has contended for the same view expressed by Fritsch and Hilzig. He has written a large work, and shows that the experi-

ments performed thus far upon the lower animals make it possible to localize disease in the brain; as the peculiar motions made by animals under experiment conform to motions made by persons when the cerebral substance is irritated by tumors or other serious lesions.

The experiments by which these new views are sustained, consist in irritating certain portions of the exposed brain of a living animal and noting the effect. There can be no question but that galvanization of certain portions of the cellular substance of the brain induces peculiar motions in certain parts. This has been proved by several investigators in this country as well as by those in Europe. Experiments at John Hopkins University seem quite conclusive in the matter. Notwithstanding these experiments and the conclusions drawn from them, there have been other students—notably Goltz, of Germany—who have worked as earnestly and who have denied that there is localization of function in the brain.

Indeed, there are some facts that seem to argue strongly against this view. The well known experiments of Flourins are to the point. He found that he could remove quite a portion of the cerebral substance in pigeons, and though there was a serious immediate disturbance, yet in many cases the birds recovered, and seemed in nowise the worse for their injury, and yet subsequent examination showed that the brain substance had not been restored. The famous Boston Crabor case, where by the premature discharge of a blast, a large iron rod was driven through a man's brain, removing a large amount of the cellular matter, and yet the man recovered, and seemed to have lost none of his power of thought or motion.

It was my privilege last winter to visit a person, then six weeks under the doctor's care who had suffered a severe accident by the fall on his head of a heavy timber. Several inches of the skull were thoroughly crushed and had to be removed. A hole in his brain must have passed nearly through the convolutions, and was large enough to receive all the fingers of a man's hand as far as the middle joints; yet this man has wholly recovered, and seems to have lost none of this intellectual strength and power, though he has certainly lost much of his brain substance. In such cases it would surely seem that a part of the brain must do the work of the whole, and that the experiments which have been thought to establish the localization of function must be interpreted in some other way. Is it not possible that irritation of parts of the brain may excite certain nerve fibres which conduct impressions to certain parts and thus arise the peculiar disturbances which have been noted.

In any case the facts already discovered are of great practical benefit in aiding physicians to locate cerebral lesions, and so are another monument in honor of scientific research, and another witness to the value and justifiableness of vivisection.

A. J. Cook.

NATURAL HISTORY.

The Norway Spruce as an Ornamental Tree.

Within the past few months two or more editorials of the *Rural New Yorker* have advised people not to plant the Norway spruce for ornament. Several other eastern writers have made similar statements. These persons live in New Jersey, Eastern New York and Pennsylvania, or in New England, or in the northeastern portion of the United States; still they do not hesitate to speak for the whole or the northern part of the United States.

This tree is a native of Norway, Russia, and other mountainous parts of Europe, where it seems to prefer moist land. It becomes a large and tall tree, often 150 feet high, and is to that portion of the world much what white pine is to our country.

In my report of 1878, nine years ago, among other things said of this tree was the following:

"This is the most commonly planted, and is one of the most beautiful and valuable evergreens for ornamental purposes. It starts freely from seed, bears transplanting well, is hardy and is a rapid grower. It stands the knife and shears well, and may be kept in a dwarf condition for many years. For sheltering screens it is the best tree we have. The lower limbs should have plenty of room, not be cut off but allowed to recline on the ground. Old specimens in good soil with plenty of room, exhibit peculiar beauty in the graceful curves of the longer limbs from which droop the small feathery branches. There is a remarkable difference in trees of this species growing in the same nursery row, started from the same lot of seed. There is a great difference in the time of starting in spring."

On the grounds of the Agricultural College are evergreens twenty-eight to thirty years old. On a section of one cut near the residence of Prof. MacEwan, I counted thirty rings, and from the history of the trees this must be their age, or very near it. The largest specimen measured on the grounds, girth five feet and one inch, two feet above the ground, and by estimate is not far from sixty feet in height. It is one of two trees just west of my woodshed, growing in rather moist sandy land. It is much exposed to piercing winds from the open ground on the west, and the long drooping branches have suffered considerably on this account. Other trees which are not crowded, nor too much exposed to severe winds, although very thick, show thrifty, healthy limbs clear to the ground.

About three rods southeast of the barn, near the house of Prof. MacEwan, is the finest Norway spruce on these grounds. It has a slender growth, a weeping habit, and is about forty feet high, and is very likely not far from twenty-eight years old. As we view it from the east there is not the slightest sign of decay.

I call your attention to a Norway spruce near the house in which I live. About six years ago it was

heavily cut back, especially towards the top where each limb was cut, so as to leave a small branch projecting beyond each stub. This tree is not far from twenty years old and has renewed its youth. The thrifty young branches are quite dense and fan-shaped somewhat, unlike those of untrimmed trees.

If the Norway spruce should not take the lead in Michigan as to numbers among the evergreens, what should take its place?

A large number of species have been tried from time to time. Many have failed. Most of them are much younger than the oldest Norways. It is yet too soon to decide what evergreens will best endure the long series of years and still remain healthy.

Our native black spruce grows very slowly and soon dies below. The white spruce does rather better. The hemlock spruce is a beauty in sheltered places, but will not stand the winds. The oldest here are about seventeen years old. The best are northwest of the greenhouse, near the bank. Our single Oriental spruce at the northwest of College Hall, is in a very unfavorable place, where the winds are thrown against the top, destroying the leaves more or less. The balsam fir is very handsome for ten or twelve years, when it begins to dwindle. The American arbor vitæ does well in damp places, but on dry ground if left to itself, it soon dies in places and looks bad.

The Scotch pine grows fast for a few years, but if left untouched by the knife, begins to die below in twelve years. The Austrian pine is coarse and its lower limbs begin to die in ten or fifteen years. *Pinus Banksiana* and *P. pungens* have defects more marked than the two preceding, though our specimens are still young. The Cembrian pine grows slowly. Our oldest tree, too near the north end of College Hall, is about twenty years old, but shows no signs of giving out. Dwarf pine is excellent, but is a spreading shrub. Red cedar grows slowly, and if not cut back soon, becomes thin and loses its lower leaves.

Our largest red or Norway pine (*Pinus resinosa*) is near the fountain, and resembles considerably the Austrian pine. It is about fifteen years old and is in every way a more desirable tree than the one used in comparison. Its lower limbs are doing well and spread on the ground. How about the white pine, the famous lumber tree of our State?

The largest one stands near the door of the house in which Dr. Kedzie lives and is likely about twenty-eight years old. It is a few feet higher than Norway spruces standing near it and is four feet nine inches in circumference two feet from the ground. It looks as though it was good for many years to come, although it long ago lost its lower limbs. It has been trimmed below some; the upper limbs are thin but healthy.

To take out the Norway spruce would deprive us of one of the best, if not the most desirable evergreen, at least so far as we can judge for thirty years.

Trees, especially evergreens, which will retain all

their limbs in a healthy condition for thirty or more years are very few in number. We want a variety in our grounds to avoid monotony.

Every planter of experience who has tried many kinds of trees, knows well that it is not expected that he can plant trees in number and position just where they are to remain for all time,—or for a life time. Nothing remains done or completed for a very long time. For the best results, we must plant thickly, keep removing, trimming some here, some there, perhaps adding others.

W. J. BEAL.

THE COLLEGE SPECULUM.

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AGRICULTURAL COLLEGE, MICH., JUNE 1, 1887.

THE following is from one of our alumni:

"I want the SPECULUM, but twice in its history I have been much displeased with it, and the last two numbers (referring to August and October numbers, 1886) were not at all to my liking. When it descends to becoming a student organ, devoted to the extolment of fractious students, with latent or direct effort to disparage the judgment of the faculty and State board (as it appears to me it has been guilty of such conduct) I have no use for it, nor money for its support."

We are always pleased to hear from our alumni, and this instance is no exception. While it is the duty of the SPECULUM to reflect the events that transpire in our midst, all of which we try to do fairly and truly, yet we occasionally like the novelty of seeing our own face reflected from some part of the little world in which we move.

In this instance, however, we fail to recognize our

own reflection. While our worthy alumnus is probably honest in his ideas, the image he shows us is evidently distorted by wrong impressions and a biased judgment.

The grave charge brought against the SPECULUM of being a student organ, we cannot refute. It was unfortunate enough to be born such, and we do not see any hope for its ever becoming anything else. We are accused of extolling fractious students. Nothing has ever been further from our purpose. But we do not care for the charge brought against the SPECULUM; each reader must judge of that for himself. We simply wish to show that the opinions expressed by the gentleman regarding the students are unjust. The college authorities themselves will say that the term "fractious" does not apply to the students in question.

When we wrote the editorial for the August number, 1886, we took into consideration the excitement of the time and tried to make due allowance for it. Now that nearly a year intervenes and the facts have been settled and arranged, and the opinion of worthy and disinterested persons have been given, we can see and give the whole affair more clearly.

The very head and front of the offending of the suspended students is shown by the following petition sent by them to the State board:

"To the Honorable State Board of Agriculture:

Be it Resolved, That we, the class of '86, after due consideration and with all respect for your Honorable Body, do hereby request the reinstatement of Mr. _____; and be it

Resolved, That if he is not reinstated within two days we shall consider it our duty to cancel all class and commencement exercises, and further to request our diplomas after our final examinations."

The action taken by the board on this was as follows:

"WHEREAS, On being given opportunity to withdraw the above resolutions certain members hereinafter named, adhered to their original action; and

WHEREAS, In the judgment of the board the said resolutions embody a threat of the authority of the board and the discipline of the college; therefore, it is

Resolved, That the following named students are hereby suspended for one year from this day and are not to be restored to the college at any time after expiration of said period, except on conditions satisfactory to the faculty, and they shall be required to leave the college grounds within the two days required by the faculty in such cases."

These two articles show on what grounds the students were suspended. After their suspension the following was presented to the board, but that body made no change in their decision:

"Your petitioners submit that their suspension is unjust for the following reasons: 1st. Because, in presenting the resolutions, they did so in a respectful manner, and with no intent of expressing sentiments disloyal to the College, nor in violation of its discipline.

2nd. They had a perfect right to express to the board what they felt to be their duty and the mere expressing a feeling or sense of duty does not constitute any offense or breach of college discipline, 3rd. The class and commencement exercises to which they referred, were such exercises as they understood to be voluntary and not a part of the regular College course, and they submit that this appears from the language of the resolutions which reads, 'and request our diplomas after our final examinations.'

And your petitioners submit that their suspension was illegal for the following reasons:

1st. In submitting said resolutions to your Honorable Body they did not, in spirit or letter, violate any rule or regulation made by the faculty of the College for the government and discipline thereof, as will appear on referring to the "College Rules" published in 1878, to which rules your petitioners hereby refer and make them a part of this petition. 2nd. Your petitioners submit that the statute by virtue of which the State Board of Agriculture was established, was not intended to and does not give your Honorable Body authority to suspend students from the College but that such authority is vested in the faculty of the College, as will appear on reference to Sections 4995, 4996, 4997, 4998, 4999, 5000, 5003, 5006 and other sections of chapter 194, of Howell's Annotated Statutes of Michigan, to which chapter your petitioners refer.

Your petitioners further state that they are willing, and always have been willing to submit to and be governed by all the rules and regulations adopted by the faculty for the government and discipline of said College, and that they therefore ask for the reasons herein stated, that the order herein recited made by your Honorable Body may be set aside and held for naught, and that your petitioners and the other students named in said order may be reinstated and admitted to all their rights as students at said College. Or that your petitioners may have such further or other relief as to your Honorable Body may seem meet."

The position taken by the students will be readily seen, and but little further explanation is necessary. As has been seen the legal right of the board to suspend students has been questioned, and Howell's Statutes have been cited to maintain the position. Even though it is granted that the students were legally suspended no one could assert that their offense was so grave as to cast any slur upon their characters.

In the August number of the SPECULUM referred to by our worthy alumnus, the "extolment of the fractious students," consisted in speaking of their "true manly character and their honor, manhood and industry so well displayed during their four years of honest toil at the College." We repeat that now, and as it is nothing more than the blunt, unvarnished truth it can injure no one, and we do not see that we should be questioned for it. As to there being proper grounds for their suspension each must decide according to his own sense of

justice. If stating a sense of duty was sufficient ground, then they were rightly suspended.

Another fact might be noted, that the students were not given a chance to show why the sentence should not be passed upon them. Perhaps it may occur to some that this is regarded as an abiding right and is not to be suspended in any instance. Each person must judge for himself if it was rightly suspended on this important occasion. The conduct of the students, whether right or wrong, had certainly been open and frank, each man stating freely how he voted on the petition, thus giving the testimony on which he himself was condemned. The facts show how this spirit was met. We offer no excuse for this article but justice to the suspended students. We feel that we have injured no one, as he who has faith in the justice of his case can not object to having the fair light of truth thrown upon all of its proceedings.

THERE is at present a strong demand for well qualified and enthusiastic men to fill the chair of agriculture in different agricultural colleges. The number of men well qualified for these positions is surprisingly small. For some reason but very few of our own graduates have occupied themselves with more agriculture than is found in the course, or have attempted to master the literature of agriculture. The era of agriculture on a real scientific basis is just opening in this country. Up to the present time experiments have been limited and the results not widely published.

The recent annual appropriation by congress of \$15,000 to each State, and the generous State appropriations that have recently been made, show that there is a demand for agriculture to form itself on a broad scientific basis. We do not look for perfect success in all these experimental stations, as it is evident that our country cannot at once furnish men well suited to carry on the different lines of experiments.

Our period of conquest in agriculture is fast passing. So rapidly have men spread themselves to all parts of our country that all the valuable tracts are already occupied. The mighty forests that once stretched over vast tracts unbroken in their primeval majesty have been entered and farms and gardens everywhere smile thickly. We hear only in the tales of our grandsires of the nearest neighbor that lived five or six miles away, and the old logging bees are gone forever. No less have our vast prairies been occupied and their monotony is now broken by thousands of farm-houses and villages. With this new condition must come a newer and better system of agriculture. We must pass from the extensive to the intensive.

The competition for a livelihood is sharp, and we can not now escape it by removing to newer tracts; they have already been occupied. Our conquests now must be of a different character; the conquest of the scientist rather than of the pioneer. We admire the sturdy

character of those who, in the pioneer days of our country, have gone forth to subdue nature and rear homes for themselves and children. Theirs was a noble work, but it is not what our country now demands. The call now is for careful, earnest scientific men who can best develop the resources of nature. The men are now needed who can make "three blades of grass grow where one grew before;" who can utilize what are known as the waste products; who can find possibilities of wealth in fields that are forbidding.

The call is for men who can find the laws by which earth yields her best returns, and in their knowledge we can reach our greatest prosperity. When all sources by which mankind obtain a living are developed to their utmost we may look for a time of plenty that will laugh at the labored theories of economists.

Remunerative positions are waiting for men who will make a lead in this direction. One of our graduates has recently been offered \$2,500 a year to fill a position as professor of agriculture, and we would be glad to see the M. A. C. furnish her full quota of such men. It is a demand that not only now exists but will continue, as the need of such men has already been felt too long. This will certainly be a tide in the affairs of scientific men whose tastes lead them in that direction.

WITH this issue the *SPECULUM* ends the sixth year of its existence, and to use a well worn expression we lay the well worn pen aside. What memories cluster round us as at this last hour we take leave of our friend! How the "goose-eggs" roll in line before us as we think of lessons neglected that we might attend to the duties of the sanctum! We have stood by the *SPECULUM* in adversity, and we think we would not have flinched if asked to do the same in prosperity. Such was never required of us, however. We shall regret to lose the pleasure of making friendly calls upon the business men of Lansing while trying to obtain their "ads." With that occupation gone we shall hardly know how to dispose of our surplus eloquence. We shall hear no more the printer's melodious cry of "Copy! Copy!" nor enjoy his ingenious and original methods of spelling. We shall never again need the piece that we were wont to recite to the freshmen on the moral necessity of supporting the college paper. All these things shall be no more. We leave to our successors all the joys of which we speak, hoping they will be able to endure them.

Then farewell, old "*SPEC.*" May your future editors support you loyally. May the light of their genius ever keep bright the atmosphere into which you reflect the passing events and ideas of our college world. As the College increases in importance and usefulness may you keep apace, broadening your earnest open character. Wherever the after years shall find us we shall always welcome you, and eagerly reading your pages, we shall live again amid the scenes of our Alma Mater.

THE recent appropriation of \$65,000 that the College has obtained is well appreciated. With our increasing number of students it is almost necessary that larger accommodations should be provided, and the appropriation was indeed timely. The distinctive features for which the money is to be used are a horticultural laboratory, an apartment building, a new boarding hall, and an addition to the mechanical department.

The horticultural laboratory is a new feature and we look for a large success in the line of work that will be carried on. The cost of the building will be \$5,000. It is to be located northeast of the library building. The basement will consist of a marketing cellar, a heeling-in cellar, and rooms for storing squashes and vegetables. On the first floor will be the tool room—where all hand tools belonging to the department will be kept—and a carpenter shop. On the second floor will be the class room, 36x32 ft. Besides this will be a seed room and a room for storing specimens, also the laboratory where grafting and all operations connected with horticulture will be carried on.

The horticultural department is justly receiving considerable attention of late, and a well equipped laboratory will give it an impetus that will doubtless make it one of the prominent horticultural features of the State. Experiments in grafting, germination and crossing will be carried on by the students, the laboratory practice being an essential and required part of the course. A long system of experiments in these lines will no doubt enable us to obtain a better knowledge of the laws that show themselves in the interesting growth and habits of plants. It is by such laboratories as this is to be, where the experimenters work for laws and principles rather than direct results, that horticulture is to be raised to the dignity of a science. Considering the little knowledge that has been attained in scientific horticulture and the great need for such a knowledge, we trust that future aid may be given freely to an enterprise of so much promise.

The apartment building that we have mentioned, is to cost \$10,000. It is to be placed east of the cottage occupied by Secretary Reynolds, being a continuation of Faculty Avenue. It is for the accommodation of professors that do not have houses on the grounds, and for all assistants and instructors connected with the College. It will make larger students accommodation, as the places in the boarding halls now held by assistants, will be occupied by students.

The new boarding hall will be very plain but convenient and desirable. It will accommodate sixty-four students, and will contain large, well lighted dining halls. It is to be finished in hardwood and supplied with all improvements and conveniences, and is expected to be a model of neatness. The cost will be about \$10,000.

The addition to the mechanical building is rendered necessary by the increased number of students, and speaks well for the success of that department. The

south wing of the mechanical building is to be extended sixty feet, and on this wing another running to the east will be attached. The east wing is to be used for the blacksmith shop. The addition to the south wing is to be used as the wood-shop, and all of the wood tools will be removed to that place. In the north end of the new part will be placed the engine room, and two or three smaller rooms for various purposes.

Though the mechanical department has been in operation but little over a year it is already a very important feature and well deserves the addition that has been given it. The work done by the students is practical and remarkably well executed, and demonstrates the success of industrial education.

Among other items included in the bill are repairs to the greenhouse, amounting to \$800, a barn for the horticultural department, and an iron bridge across the river, besides the amounts required for the usual running expenses of the College. While the appropriations have been generous they are not extravagant, and the good that the College and the State at large will receive from the extended faculties will be so apparent that all should see the wisdom of the appropriation.

COLLEGE NEWS.

Four seniors have lately joined the Grange.

Not much excitement in the Agriculture class this term.

A new iron bridge is to be placed over Cedar river soon.

The condemned wells on the grounds are being filled up.

A 'bus now makes two regular trips to Lansing and return each day.

Weather signals are now displayed from the flag-staff at the Armory.

It is probable the waterworks will be extended to the gardens next year.

The College orchestra has consolidated with the Hadyn orchestra of Lansing.

P. B. Woodworth, with '86, has been engaged at the chemical laboratory for one year.

The class of '87 will follow the example of the last two classes and have Platinum Prints.

Pres. Fairchild and Prof. Shelton, of the Kansas Agricultural College, will visit us in July.

June 15th Prof. MacEwan spoke in chapel on the subject: "The Newspaper as an Educator."

M. A. C. has more "big men" this year than could be very easily scared up in another quarter.

Dr. Beal by way of experiment is mulching the black walnut trees in the arboretum, with straw.

What kind of a "brigade" was that which paraded the grounds the Friday night of Field day?

Prof. Cook has discovered that a queen bee will lay over twice her own weight of eggs each day.

Dr. Beal is making a large collection of grasses to exchange with those who wish to for herbariums.

The seniors in forestry have failed to find the *snap* they thought they were going to have this term.

The Cadets will be entertained at Flint on July 4th, and will contribute to the exercises of the day.

Dr. Beal reports the addition of several new and choice varieties of trees to the arboretum this year.

In experimental ground on the farm this year are fourteen varieties of oats and eighteen varieties of potatoes.

At their last meeting the State board voted to expend \$40 for book of reference for the botanical department.

Dr. Kedzie had a slight explosion in his class-room one day this term, and received scratches on one of his eyes.

The Faculty have appointed Dr. Beal to represent the College at the semi-centennial of the University, the 30th of June.

Prof. Johnson reports oats, wheat, corn and grasses looking fine and that the prospects for large crops were never better.

Prof. Cook will each year frame a few of the best drawings made by the Entomology class, and hang them in his laboratory.

Mrs. Prof. Bailey has just completed the translation of a French scientific work, to which the Professor will add a few notes and publish.

Prof. Bailey has recently received an invitation to join another exploring party to the Lake Superior region, but will probably decline.

The College has purchased Ellis' North American Fungi of nineteen volumes, now out, and will continue the subscription at \$7 a volume.

Eighteen galvanometers are in course of construction in the chemical laboratory, and when finished will be excellent pieces of workmanship.

Fifteen members of the Junior class have each selected a natural order of plants of which to collect so as to exchange specimens for a herbarium.

Prof. R. C. Carpenter, Prof. and Mrs. L. G. Carpenter, Mr. and Mrs. H. T. French, and Mr. Ed. Lake are now members of the Capitol Grange.

The construction of a new silo is soon to be commenced on north end of cattle barn. Its dimensions are to be 18x30 with a packing height of 22 feet.

Who is authority? Dr. Kedzie says cultivation of fields prevents frost. Prof. Johnson says if cultivation of fields has an effect it would be to cause frost.

Every few days the College is honored by the presence of members of the legislature, who visit the grounds, no doubt, to see how their farm is getting along.

The commencement orators are E. A. Burnett, H. M. Winde, C. B. Waldron, W. C. Sanson, Edwin W. Redman, W. C. Hall, H. L. Chapin, Mrs. H. T. French.

Secretary Reynolds now occupies the house previously occupied by Dr. LeLouth, and Mr. Campbell, of the mechanical department, lives where the secretary used to.

In the way of new implements on the farm Prof. Johnson reports one recently donated by C. S. Davis, known as the Davis horse hoe that is guaranteed to mark the ground, cover the potatoes and hoe them successfully in all stages of growth.

Stewards of clubs for summer term are: Club A—William L. Lightbody; Club B—D. A. Smith; Club C—Thos. McGrath; Club D—L. C. Colburn; Club E—A. B. Cordley.

Dr. Beal is constantly making new additions to the Botanical museum, from the neighborhood, of new specimens, curiously matted roots, twisted trees and other things of botanical interest.

In a late number of American Garden there appeared a short article by Dr. Beal, on two aquatic plants—*Petandra Verginica* and *Orontium aquaticum*—which have been successfully grown here.

The legislature did not see fit to allow for a dining room to Prof. Cook's house, but the State Board has kindly consented to let the professor build it at his own expense, and "we will have the dining room."

Last April Prof. Johnson purchased for the College at the Alexander sale at the famous Woodburn stock farm, Kentucky, two very finely bred Short-horn heifers. They make a valuable addition to the college herd.

When the ball team returned to M. A. C. after their victory at Ann Arbor, they found a big chunk of enthusiasm lying in wait for them in the shape of fireworks, the oft repeated college yell and various other exhibitions of overflowing admiration too numerous to mention.

The apiary is to be enlarged, and will be located back of Prof. Carpenter's house, where the vineyard now stands. In the future all who wish to work with the bees can be accommodated.

Some time ago L. G. Burrit reported "Oscanumerous" Miller for drawing a revolver on him while in a fit of anger, the result of some misunderstanding. Mr. Miller was tried and convicted by the students government and given ten marks.

During the past seventeen years Dr. Beal has never spent so much time altogether in the study of the local flora as of late. It is his object to complete the herbarium of local plants, of which he will publish a catalogue some time in the near future.

Dr. Beal is making an extensive collection of weed seed which are placed in little bottles, arranged and classified for the purpose of comparison and for use in answering questions of correspondents. He has now over 100 different varieties.

The sophomore class has taken the first step in the popular college custom of getting out an annual. They expect to have it ready in a few weeks. We hope their enterprise may meet with the greatest success and that the custom will be loyally supported by coming classes.

The construction of a new sewer is to be begun soon, extending from the west of College Hall toward Prof. Johnson's house and then toward the President's house. Branches are to be run from the main to each of professors residences. It is to be completed this year.

Freshman heaven in College hall is now a thing of the past. During the last vacation this was all torn out, the stairways were removed to north side and now run straight up to second floor. This leaves a spacious entrance hall between chapel and stairways extending the full width of the building from east to west doors, and is a decided improvement.

Officers of classes are: Freshman class, President, K. L. Butterfield; Secretary, F. B. Plympton. Sophomore class, President, Alex. A. Moore; Secretary, Miss. Mamie Smith. Junior class, President, H. E. Harrison; Secretary, W. A. Taylor. Senior class, President, F. R. Smith; Secretary, A. A. Abbot.

Dr. Beal found on the marsh north of College grounds this spring a specimen of *Aralia Hispidia*, which is a native of pine woods and not supposed to grow elsewhere. Also found on the grounds specimens of foreign plants, which have undoubtedly been introduced here by planting of foreign grains and grasses.

Board of Editors of Speculum for ensuing year are—editor-in-chief, W. A. Taylor, Union Literary society; assistant editors, Paul M. Chamberlain, Delta Tau Delta fraternity; L. C. Colburn, Eclectic society; Geo. L. Teller, Olympic society; Clark Hubbell, Phi Delta Theta fraternity. Business manager, H. E. Harrison.

The lower pond in the wild garden has, of late, become so completely choked up with *Anarcharis Canadensis* that it was found necessary to remove the latter and clean the pond. This is the same plant which was introduced into Europe some years ago and has since filled the streams so as to obstruct navigation.

The Horticultural department are paying two cents a quart for picking strawberries this year. The amount earned by the boys is said to vary from three to twenty cents an hour, depending somewhat on the number of berries and vastly more on the capacity of picker's stomach and ability to safely take care of such portions of the luscious fruit as he forgets to put in the basket.

Officers of societies and fraternities for summer term are: Eclectic society, President, J. J. Benjamin; Secretary, A. L. Waters. Union Literary society, President, C. B. Waldron; Secretary, D. M. Myers. Olympic society, President, A. A. Abbot; Secretary, W. M. Munson. Phi-Delta-theta fraternity, President, C. L. Himebaugh; Secretary, H. J. Degarmo. Delta Tau Delta fraternity, President, F. M. Seibert; Secretary, Geo. J. Jenks.

The May and June addresses of Pres. Willets were as follows: At Buck's Opera House, Lansing, before the Legislative Temperance Society; Webberville; Pine Lake, Decoration Day; Bancroft, the annual address at the Kansas Agricultural College; at the commencements of the High Schools of Vassar, Bay City, Flint, and Jackson. He will deliver the oration at Pine Lake on July 4th; He declined nine invitations during the two months.

The boys in the iron shops of the mechanical department have just completed another lathe, which makes four in all, and three more are well advanced. They have also finished 175 weather signals for Sergeant Conger to be used on the different railways of the State. This was paid labor and done by the boys after their shop practice. The students are doing very fine work; in many cases they have acquainted themselves with their different lines of work far beyond the expectations of those in charge.

The Arboretum, by reason of the constant additions of native and foreign trees which are being made to it, is becoming more and more interesting each year, and no doubt the students would attach to it the importance it deserves were there some easy mode of access to it, as it is those who go there are obliged to go through several back yards, a few barns, must climb over ten or a dozen fences, run the risk of getting shot for trespass and otherwise placing their life in jeopardy, hence is it any wonder they don't go?

The legislature, this year, appropriated \$65,205 to the College. Some of the principal items were: \$10,000 for an apartment building for the minor professors; \$10,000 for a new dormitory; \$5,000 for a horticultural laboratory; \$1,000 for equipments in horticulture; \$1,000 for a new iron bridge; \$3,000 to build an addition to the mechanical shops; \$1,500 for two new boilers; \$550 each for the purchase of two twelve horse power engines; \$800 with which to raise the engine house chimney to ninety feet; and \$400 to build another story to Mr. Knapper's house.

Pres. and Mrs. Willets were gone one week to Kansas and reports a delightful time. They inspected the Agricultural College of that State thoroughly and with high appreciation. It is a bright growing institution and is a power for good in the State. On their return they climbed the bluffs of Kansas City and saw the "Big Muddy" as it rolled at their feet. They put in one day at St. Louis spending most of the time in Shaw's Garden, the sights of which alone were a sufficient compensation for the trip, and finally reached M. A. C. just in time to hear of the victory of the College over the University in the base ball game.

Lieut. W. F. Durand, who has been engaged to fill the chair of Mechanics left vacant by Dr. McLouth, is a native of Connecticut. He graduated at U. S. Naval Academy in 1880, after which he spent three years at sea and was then detailed to the Mechanical Department of Lafayette College, Penn. After remaining here one year was detailed at Worcester Institute, where he has since been stationed with the exception of a portion of last year, when he was engaged in the Construction department at Washington. He speaks French, German, Italian and Spanish fluently, and will have the class in French here next year. He is said to be a gentleman of rare attainments and fine abilities and will no doubt prove to be an efficient and capable instructor.

PERSONALS.

Pres. McLouth, of Brookings, Dak., is advertising for finely bred stock for the College. In a recent letter he remarks that they have a good deal of weather.

CLASS '61.

Prof. Prentice has gone to Europe to give especial attention to forestry.

CLASS '62.

Oscar Clute has been delivering lectures at Winona, Minn.

CLASS '68.

A. G. Gulley made the College a visit June 1st. He is a member of the executive committee of the State Horticultural Society.

CLASS '70.

W. W. Tracy, once professor at this College, mourns the loss of his wife.

E. M. Shelton, Prof. of Agriculture at the Kansas Agricultural College, has been offered \$2,300 and a residence to change his field of work to the Iowa Agricultural College.

CLASS '71.

B. D. Halsted, Prof. of Botany at the Iowa Agricultural College, has issued a bulletin on his methods of carrying on experiments in

connection with class room work. The experiments are conducted by the students. Dr. Beal has made very favorable comments on this method.

CLASS '73.

C. W. Hume, M. D., is still practicing at Corunna.

J. P. Finley is author of a work on "Tornadoes." Coffron ('82) reports that 75,000 copies have already been sold.

S. C. Hedger, with '73, is county auditor and a popular official of Brown Co., Dak. He expects to send a son to the M. A. C. next year.

CLASS '74.

C. L. Ingersoll is well anchored in the Colorado Agricultural College. A strong effort has been made to get him at Iowa Agricultural College.

J. Graner, M. D., made the College a recent visit, and seemed much pleased, as our graduates usually do, at the growth of the College.

CLASS '75.

D. F. Griswold is running a creamery in Illinois.

CLASS '76.

R. A. Clark has been laid up by rheumatism caused by overwork.

CLASS '77.

W. W. Gray, married in 1885, rejoices in an heir this year.

W. C. Latta, Prof. of Agriculture at Purdue University, is having wonderful success in carrying out a series of experiments on grains and grasses, both in regard to their growth and their use. He is attracting a great deal of attention from his successful management of the department. Good professors of agriculture have a broad field of labor and an excellent chance to win a wide reputation, and this is what some of our graduates are doing.

CLASS '78.

W. S. Holdsworth is now in Boston studying art.

J. R. Monroe is cashier of the Savings Bank at Kalamazoo, of which his brother, Senator Monroe, is president.

Jas. Troop, professor of horticulture and entomology at Purdue University, is carrying on an extensive line of experiments with vegetables and small fruits.

C. C. Georgeson, of Kamaba, Tokio, Japan, has written a treatise in Japanese on "The Culture of the Cabbage Tribe." He attended a garden party given by their Majesties, the Emperor and Empress. Among other things he was enabled to see the cherry blossoms in one of the Imperial Parks. Only ministers of state, foreign representatives and high Japanese officials were invited. He says a truly royal table was spread. To add greater honors he was invited to a ball given by one of the princes. We are glad to see our alumni so richly rewarded for their careful labor.

CLASS '79.

Harry Wilcox is teaching school at Mastodon.

E. J. Ranchfuss is with the firm of Theo. Pabst & Co., New York City.

Mrs. Wm. McBain, of Grand Rapids, has a third child.

L. G. Carpenter has set out some thirty thousand trees this spring on his Dakota farm.

C. W. Gammon has been engaged in business in Texas. He is about to return to Michigan on a visit.

R. B. Norton is one of the firm of Hess & Norton, bankers, Arkansas City, Kansas.

M. S. and W. L. Thomas of '79 and '80 are at their homes in Bramhall, Hyde Co., Dak. Both are farming, but the drouth for the past few years in that section of Dakota has rendered farming not very profitable. They take an active interest in political affairs and are of considerable influence. Marcus, besides holding most of the township offices, was chairman of the Republican county convention, and some of the neighbors whisper that he will probably be sent to Bismarck to help make the laws for that fast growing country.

CLASS '80.

C. T. Crandall is prosecuting attorney of Iron county. His address is Crystal Falls.

CLASS '81.

W. S. Lillie is prosecuting attorney at Coopersville.

W. G. Simonson has just returned from a trip to Europe.

C. W. McCurdy has been elected to stay at Sand Beach another year.

A. H. Voigt is a partner of the Los Angeles Furniture Co. He says he has looked for the SPECULUM and read its contents with pleasure, and that he is the only member of '81 who can boast of having entered the Eden of the world where there are flowers and fruits 365 days each year. Dec. 10, 1885, he was married in his own home, this with his business interests has anchored him there for life.

CLASS '82.

L. W. Hoyt is deputy collector of internal revenue at Grand Rapids. He visited the College June 12.

— Howard, once with '82, is at Bramhall, Hyde Co., Dakota, keeping one of the two stores of the town, running the express office, publishing a newspaper, and keeping house all in a building 15x20 feet.

W. H. Coffron continues to be the "thermometer crank" at the United States signal service office at Washington. He was married June 1st to Miss Jennie Rutherford of that city. He paid the College a flying visit on his tour.

CLASS '83.

A. W. Mather was married in April, 1887.

C. M. Weed recently made the College a visit. (—?)

C. H. Osband, with '83, is cashier of the Peoples' Saving Bank at North Lansing.

E. P. Clark has been principal of the Council Grove school the past year.

E. J. Fletcher was recently married to Miss Ida Chamberlain, of Plainville, Mich.

Fred Standish, once the pard. of Sylvester Jones, (B. G.) handles safety boilers and general machinery supplies at Detroit. He renounces Jones.

H. W. Collingwood is assistant editor of Rural New Yorker. He takes charge of "Uncle Mark's" department, and has given a series of articles on the experience of a college student in a district school.

E. Grimm, professor of chemistry and agriculture at the Oregon Agricultural College, is making a special study of grasses. Why should not a professor of agriculture have a thorough knowledge of botany?

A. C. Redding, professor of chemistry at Findlay, O., is preparing a thesis on natural gas to present to the coming commencement for the M.S. degree. '83 will be pleased to note the birth of Ralph Allison Redding, Feb. 15, 1887.

J. H. Smith after graduating secured a position as instructor in mathematics in Iowa College, where at the same time he took a normal course and received a diploma representing two years' work. The next year he was called to Rock Rapids, Ia., as superintendent of schools, which position he held for two years, and has just been elected for another year at a salary of \$115 per month. He was married in 1885, and thinks he is entitled to the "class cup," as he has a daughter eight months old.

CLASS '84.

C. E. Bank has had his salary increased.

D. J. Hill, with '84, is studying law in Northern Ohio.

F. W. Sheldon is running a large dry goods store at Burr Oak.

W. C. Stryker is in a drug store in Detroit.

Chas. Baker completes his course in pharmacy this year.

J. W. Mathews is taking a literary course at the University.

J. R. Abbot is in the lumber business with Gedhart & Estabrook, of East Saginaw.

Alice Johnson is engaged to teach in the city schools another year.

M. A. Jones, with '84, graduates from the department of pharmacy at the University this year.

W. H. Draper, with '84, is a successful dentist at Devil's Lake, Dakota. He owns a farm there.

C. E. Smith will take charge of the Schoolcraft schools Sept. 1st. He was at Ann Arbor June 11th to yell with the M. A. C. boys.

R. J. Coryell has refused the offer of \$800 a year by an Eastern horticultural paper. He intends to stay on the farm. He was on the College grounds field day.

Fred Herrington, graduate from the law department at the University, is admitted to the bar and is now in the county clerk's office of Oakland county.

CLASS '85.

D. J. Stryker is studying law at ———, Iowa.

R. M. Bates takes the degree LL.B. from the University this year.

E. S. Antisdale is farming at Nattawa.

T. T. Nelson, with '85, was married this spring at Barton, Wis.

E. T. Gardner is engaged in the hardware business, and is farming at Lee's Park, Neb.

CLASS '86.

A. E. Brown is reading medicine at Andover, Dakota.

A. C. Himebaugh, with '86, is farming near Bronson.

Geo. Hancorne graduates from the Normal this year.

G. S. French is taking orders for a printing firm in Flint.

C. F. Stillson, with '86, made us a call recently.

Jennie Towar is a partner in a bakery, restaurant and milk depot in Lansing.

The Clemmons Bros. are at home. We see them occasionally, looking hale, hearty and happy.

Chas. Lawson played in the University ball team against the College June 11th. He did some good batting.

F. C. Davis is on his required six weeks' surveying trip from the University.

John Hooker is studying veterinary at the New York Veterinary College.

G. W. Everhart is in the employ of the Illinois Central, now at Middleville, Wis.

Geo. Spangler has been elected city clerk of Lansing, he received a large majority of votes cast.

F. L. Wrigglesworth is building an elevator on the T., A. A. & N. W. R. R. He will soon begin buying wheat.

C. H. Judson is legally installed deputy county surveyor of Lucas county, O. He is having all the work he can do.

J. E. Hammond closed his school June 11th. He is going to Chicago to enter the firm of Law, King & Son. He contemplates taking a trip through the far west in the near future. All communications addressed to his old postoffice will reach him. He expects his brother will enter M. A. C. with '91.

WITH THE CLASS OF '87.

J. H. Brown is teaching school and farming near Climax.

David Sayre Jr., and his brother are running a 320 acre farm at Fulton Rocks, Miss.

Glen Smith, of Portland, was on the College grounds field day.

H. R. Case is studying mining engineering at Sioux City, Ia.

F. E. Rood is superintendent of a large fruit farm at Covert. He hopes to see '87 before they separate.

T. D. Campbell, of the law firm of Flynn & Campbell, West Bay City, is having all the work he can do.

A. L. Marhoff (WELL) has been teaching school winters and farming the rest of the time, says he will surely return to graduate with '89.

T. A. Parker is assistant superintendent in his father's iron works at Terre Haute, Ind. He hopes to be present at the coming commencement.

T. A. Morley is in the lumber business. He is also holding down a claim at Greeley Centre, Kan. He says it is not very pleasant, but if he holds the claim as well as he used to hold the "Sophs" we are sure it will be effectually retained.

C. W. Buck (B. G.) clerked in a bank at Lyons for six months after leaving College, was four months with a windmill company, then

began the study of law and was admitted to the Ionia county bar March 22, 1887. He is now running a law office at Langford, Dak.

J. Y. Ely is running a large farm at Farmington. He says he was unfortunate enough to get married last winter, and to crown the glory took a nice little trip to Philadelphia, New York, etc.; was gone most of the winter.

CLASS '88.

Will Hanaford was married to Miss Jennie Good, of Solon.
SPECIALS.

N. S. Tuttle is farming near Ionia. He expects to return to College soon.

Carl S. English, of Lowell, Kent county, has purchased a compound microscope and is studying with it and using it in connection with the Grange.

ATHLETICS.

In the limited space allotted to this department it will be impossible to give detailed descriptions of the field days at the other colleges. At Olivet, M. A. C. was represented by thirty men. Everything passed off pleasantly. Olivet entertained all right royally. From the remarks made upon the return trip evidently Olivet's fair ones contributed not a little to most of the fellows' good time.

Albion College field day, which was held May 27th and 28th, was a decided success. The Agricultural delegation was composed of eighty farmers, who went down to see their ball team gain a victory and who, in this respect were sadly disappointed. In their good time happily they were not disappointed, all returned feeling that every effort had been made to make the stay a pleasant one. We are sorry that any thing should have happened to, in any way mar the pleasure that Albion took in welcoming M. A. C. Yet by the Albion papers we see that a dark rumor was abroad that some rash farmer boy intended to gracefully (?) doff his hat and smile sweetly (?) upon some Albion man's "best girl," thus gaining her good graces. Now we believe that this rumor was a falsehood, because our stay was to be short (hardly long enough to make the conquest of even an Albion girl's heart) and besides we have got "best girls" of our own, you know. Albion you must not forget that M. A. C. has a few "Co-eds," and then the Capital City is not so very far away.

The M. A. C. field day was held on Friday and Saturday, June 3d and 4th. The Olivet delegation of forty men, arrived Friday morning. Fifty men from Albion and thirty from Hillsdale came on a special at six p. m. This is, we believe the first time in the history of the State that four Michigan Colleges have participated in a like event.

The exercises Friday afternoon consisted of a ball game between Olivet and the M. A. C., which was won by the College by a score of 6 to 8; of fancy bicycle riding, the memento for which was won by F. G. Clark, M. A. C.; of lawn tennis, the doubles were won by Warren and Knappen of Albion; the medal for singles was won by Knappen, of Albion; and a dress parade and exhibition drill. The day was completed by a reception held in the armory. After an interval filled by conversation and the use of Mr. Aberlie's canvas, refreshments were served in the Botanical laboratory. About 600 people were squeezed into this "temple of learning." Dr. Kedzie gave the address of welcome, and Prof. Bailey officiated as toast master. The grounds looked very lovely. The moon shed her kindest rays upon the scene, and Japanese lanterns swinging from the flag-staff to the corners of the buildings, also helped to make everything look picturesque.

At 9 o'clock in the morning the armory building was crowded with spectators to see the opening of field day sports. Two gold and ten silver medals were to be awarded, besides a great number of mementos. Each college had competitors present, and the contests were sharp and spirited but no ill-feeling was manifested throughout the whole time. The first was the standing high kick, and was won by Avery, M. A. C., with a kick of 19½ inches over his head. The standing high kick, both feet, was won by Hume, of the College, record 5 ft 10 in. Glenn, Tompkins, and Griffin, of Albion, were the other competitors.

There were three entries for the running high kick: Tompkins of Albion, Westberg of Olivet, and Hume of the M. A. C. Westberg won with a record of 7 feet 10½ inches.

The hitch and kick was a walk-away for Glenn, of Albion. No one else entering.

In putting the 16½ lb. shot Yerkes, M. A. C., was successful. The record was: Yerkes, 19 ft 4½ in.; Heron, of Albion, 19 ft 1¼ in.; Hooper, M. A. C., 18 ft. 4 in.

Throwing base ball was contested by Chase, Yerkes, and Canfield, of the M. A. C., Chase won easily on a throw of 338 feet.

Yerkes, of the M. A. C., won the standing broad jump by a jump of 11 feet 8 inches. Staley, of the College, was his only adversary.

The contestants for the running broad jump were Glenn, of

Albion, and Staley, of the M. A. C. The medal was won by Glenn; record 18 feet.

Cady, of Olivet, won the running high kick easily with 4 feet 11 inches to his credit.

McCulloch, M. A. C., won the hand spring jump with very little trouble. Eleven feet 7 inches was the record. "Mac." has made 13 feet without much effort.

The hop, skip and jump was taken by Yerkes, of the M. A. C.; record 32 feet 3 inches. This is one of the best, if not the best record made by an amateur.

Woodward and Seeley, of Hillsdale, gave exhibitions of Indian club swinging. Both did excellent work, and opinions were about even as to which one was the superior. The referee awarded the memento to the former on account of a slight mistake made by Seeley.

Wrestling was the next thing in order. First came the collar and elbow, heavy weight, between Baranger, of Hillsdale, and Needham, of the M. A. C. First fall was won by Needham in two minutes; the second fall by Baranger in 2:21; third fall, Needham, 8 minutes. Thus the match was won by Needham, two falls out of three. The men were of equal weight, and each showed great skill, so that this was considered *the* feature of the sports.

This was followed by a collar and elbow contest of light weights between Thompson, of Albion, and Bailey Smith, of M. A. C. The first fall was won by Smith by a trip in which Thompson broke his hold; time 3:47. The second and third falls and the match was given to Mr. Smith, Mr. Thompson withdrawing.

The side hold contest, light weights, was next inaugurated with Smith of M. A. C., and Tyler, of Olivet in the ring. The former won the first fall after a lively and exciting bout of only 50 seconds. The second was also won by Mr. Smith in the remarkable time of 40 seconds.

In the heavy weight boxing contest Barringer, of Hillsdale, took the medal, there being no other contestant.

The next was a light weight boxing contest between Moore, of Hillsdale, and Smith, of M. A. C. Three 3 minute rounds, points to count. First bout, 10 to 7 in favor of Moore; second bout, 15 to 11 in favor of Smith; third bout, 25 to 22½ in favor of Moore. Total 46 to 45½ in favor of Moore.

The running contests were postponed from lack of time, until after the ball game. The results were as follows: the half mile gold medal was won by Hagel, of Albion, time 1:56; the one hundred yards dash was made in 11 seconds by VanVleet, of Hillsdale; the running bases was won by Glenn, of Albion, in 16 sec.

The base ball game drew the largest crowd ever seen on the College ball grounds. One thousand people watched the game, which resulted in favor of the M. A. C. 21 to 8.

We wish to thank the Lansing *Journal* for the manner in which the records were printed, only one mistake we believe. The *Free Press* outdid itself in our favor, thus bringing the wrath of Albion upon our heads.

We print the score sheets of the seven games which the College team has played this year: six victories, one defeat. The M. A. C. now proudly claims to be not only the champion of the colleges of the State, but in view of our "Famous victory," the champions of the University and college teams of the State. WE STILL HOLD THE BELT!

April 29th.

M. A. C.	AB	R	BH	PO	A	E	UNIVERSITY.	AB	R	BH	PO	A	E
Bates, c.....	5	1	1	8	2	2	McDonald, l. f.....	5	0	0	1	0	0
Smith, l. f.....	5	1	2	0	0	0	Miller, 3b., c.....	5	2	4	2	0	1
Chase, c. f.....	4	2	1	0	0	0	Carpenter, s. s.....	5	1	0	1	2	0
Cordley, r. f.....	4	2	4	0	0	0	Hibbard, p.....	5	1	2	0	4	0
Canfield, lb.....	4	1	2	12	0	1	Malley, c. f.....	5	2	2	1	0	0
Yerkes, p.....	4	1	2	1	10	0	McMillan, 2b.....	5	1	3	2	2	2
McCulloch, 3b.....	4	0	0	3	0	0	Wilkinson, lb.....	5	1	2	12	0	0
Bulson, 2b.....	4	2	2	3	2	0	Jaycox, r. f.....	4	0	2	2	0	0
Shepard, s. s.....	4	0	0	0	7	0	Booth, c.....	4	0	1	4	2	0
	38	10	15	27	21	3		43	8	16	25	8	3

	1	2	3	4	5	6	7	8	9	R
M. A. C.....	0	3	4	0	0	1	0	0	2	10
University.....	5	1	0	0	0	0	0	2	0	8

Earned runs—M. A. C., 7; University, 6. Two base hits—Chase, Yerkes, McMillan. Struck out—Yerkes, 8; Hibbard, 2. Passed balls—Bates, 3; Booth, 11. Umpire—Rasch. Time—2:30.

May 7th.

M. A. C.	AB	R	BH	PO	A	E	LANSING.	AB	R	BH	PO	A	E
Bates, c.....	5	1	1	12	3	2	Kramer, r. f.....	5	0	0	0	0	1
Smith-Learned, l. f.....	5	2	3	0	0	0	North, 3b.....	5	1	0	3	1	0
Chase, c. f.....	5	1	1	0	0	0	J. C. Tray, 2b.....	5	0	2	2	0	0
Cordley, r. f.....	5	2	2	1	0	0	Costigan, lb.....	5	2	0	9	1	3
Canfield, lb.....	5	3	2	13	0	1	Mannasau, p.....	4	0	2	2	9	2
Yerkes, p.....	5	2	3	0	11	0	Blair, s. s.....	5	1	1	0	1	2
McCulloch, 3b.....	5	2	3	1	3	1	Ed Tray, c.....	5	1	1	5	1	0
Bulson, 2b.....	5	0	2	0	2	2	Campbell, l. f.....	4	1	1	0	2	0
Shepard, s. s.....	4	0	3	0	4	3	Dancy, c. f.....	4	0	0	3	0	0
	44	13	19	27	13	9		42	6	7	27	15	8

	1	2	3	4	5	6	7	8	9	R
M. A. C.....	0	0	3	1	4	4	0	2	*	13
Lansing.....	0	2	0	0	0	0	3	0	1	6

Earned runs—M. A. C., 11; Lansing, 4. Two base hits—Shepard, Blair. Base on called balls—Yerkes, 2; Mannasau, 4. Passed balls—Bates, 1; Tray, 2. Struck out—Yerkes, 9; Mannasau, 4. Sunstruck—Smith. Umpire—Hemphill. Time—2:15.

May 14th.

M. A. C.	AB	R	BH	PO	A	E	OLIVET.	AB	R	BH	PO	A	E
Bates, c.....	3	1	0	9	1	1	Gage, c.....	3	1	1	6	0	0
Smith, l. f.....	3	2	3	0	0	1	Moore, c. f.....	3	1	0	0	0	0
Chase, c. f.....	3	0	1	0	0	0	Joiner, 1b.....	3	0	1	4	0	0
Cordley, r. f.....	3	1	0	1	0	0	Danglas, 3b.....	3	0	0	0	1	2
Learned, 1b.....	3	2	0	4	0	0	Tyler, r. f.....	2	0	1	0	0	0
Yerkes, p.....	3	1	0	0	9	0	Bissel, s. s.....	2	0	0	1	0	0
McCulloch, 3b.....	2	0	0	0	0	0	Kellogg, l. f.....	2	0	0	0	0	0
Bulson, 2b.....	2	0	0	0	1	0	Furber, 2b.....	2	0	1	1	0	0
Shepard, s. s.....	2	1	2	1	2	2	Hoskins, p.....	2	0	0	8	5	0
	24	8	6	15	13	4		22	2	4	12	6	2

	1	2	3	4	5	R
M. A. C.....	4	1	2	1	8	8
Olivet.....	0	0	1	0	1-2	

Earned runs—M. A. C., 6; Olivet, 0. Struck out—Yerkes, 4; Hoskins, 5. Passed balls—Bates, 3; Gage, 3. Umpire—Hemphill. Time—1:15.

May 27th.

M. A. C.	AB	R	BH	PO	A	E	ALBION.	AB	R	BH	PO	A	E
Bates, c.....	5	1	3	8	0	3	Tompkins, s. s.....	5	2	2	2	2	1
Smith, s. s.....	5	1	2	2	0	2	Eslow, c.....	5	2	0	5	1	0
Chase, c. f.....	5	0	1	1	0	2	Jones, p.....	4	2	2	0	7	1
Cordley, r. f.....	5	0	2	0	0	0	Sutton, 1b.....	4	0	1	8	1	1
Canfield, 3b.....	5	0	0	0	1	1	Dascome, 3b.....	4	0	0	3	0	1
Yerkes, p.....	4	2	1	1	12	0	Landon, 2b.....	4	1	1	6	1	2
Learned, 1b.....	4	2	2	15	0	2	Snell, r. f.....	4	0	0	0	0	0
Bulson, 2b.....	4	1	1	1	1	2	Titman, c. f.....	4	1	1	2	0	0
Hemphill, l. f.....	4	0	1	0	0	0	Knappen, l. f.....	4	1	0	1	0	0
	41	7	13	27	14	12		38	9	7	27	12	6

	1	2	3	4	5	6	7	8	9	R
Albion.....	2	0	1	0	0	0	0	0	0	0-0
M. A. C.....	0	2	0	0	0	0	0	0	0	5-7

Earned runs—Albion, 4; M. A. C., 4. Base on balls—Albion, 2; M. A. C., 0. Passed balls—Eslow, 4; Bates, 3. Struck out—Jones, 5; Yerkes, 11. Time—2:15. Umpire—McCulloch.

June 3rd.

M. A. C.	AB	R	BH	PO	A	E	OLIVET.	AB	R	BH	PO	A	E
Bates, l. f.....	5	2	0	0	0	0	Furber, r. f.....	4	0	0	0	1	0
Smith, c. f.....	5	0	1	0	0	0	Butler, 3b.....	4	0	1	1	0	1
Chase, c.....	5	0	1	10	0	0	Joiner, 1b.....	4	0	1	11	0	0
Yerkes, 1b.....	4	1	3	13	1	0	Gage, c.....	4	0	0	6	0	0
Canfield, p.....	4	0	0	1	11	1	Kellogg, l. f.....	4	0	0	1	0	0
McCulloch, 3b.....	3	3	1	1	1	0	Cuttan, 2b.....	4	0	1	2	3	3
Learned, r. f.....	4	0	2	0	0	0	Hoskins, p.....	3	0	0	0	7	0
Bulson, 2b.....	3	1	2	1	2	2	Sherick, c. f.....	3	0	0	1	0	0
Shepard, s. s.....	4	1	0	1	7	0	Bissel, s. s.....	3	0	0	2	2	2
	37	8	10	27	22	3		33	0	3	24	13	6

	1	2	3	4	5	6	7	8	9	R
M. A. C.....	0	1	1	2	0	1	0	3	8	8
Olivet.....	0	0	0	0	0	0	0	0	0-0	

Earned runs—M. A. C., 3; Olivet, 0. Base on balls—Canfield, 0; Hoskins, 2. Struck out—Canfield, 7; Hoskins, 5. Passed balls—Chase, 2; Gage, 4. Umpire—Douglas. Time—2 hours.

June 4th.

M. A. C.	AB	R	BH	PO	A	E	ALBION.	AB	R	BH	PO	A	E
Bates, l. f.....	6	2	3	1	0	1	Tompkins, s. s.....	5	1	0	0	1	2
Smith, c.....	6	2	0	10	1	2	Eslow, c.....	5	0	3	4	1	0
Chase, c. f.....	6	5	3	1	0	0	Jones, p.....	5	1	3	1	10	0
Cordley, r. f.....	6	2	2	0	0	0	Sutton, 1b.....	5	2	0	9	1	1
Canfield, 1b.....	6	1	2	7	0	2	Dascome, 3b.....	5	1	2	0	2	7
Yerkes, p.....	6	3	4	1	12	0	Landon, 2b.....	5	1	2	6	1	4
McCulloch, 3b.....	6	3	4	4	2	7	Knappen, e. f.....	5	1	1	2	0	0
Bulson, 2b.....	5	1	2	1	0	0	Snell, l. f.....	5	1	0	2	0	0
Shepard, s. s.....	5	1	1	1	7	1	Titman, r. f.....	5	0	1	0	0	0
	52	21	21	27	22	13		45	8	12	24	16	14

	1	2	3	4	5	6	7	8	9	R
M. A. C.....	1	0	7	3	2	0	5	3	8	21
Albion.....	0	2	0	2	2	0	0	2	0-8	

Earned runs—M. A. C., 12; Albion, 1. First base on balls—Yerkes, 1; Jones, 4. Passed balls—Smith, 1; Eslow, 5. Strike out—Yerkes, 11; Jones, 3. Umpire—Hawkins. Time—2:30.

June 11th.

M. A. C.	AB	R	BH	TB	PO	A	E	UNIVERSITY.	AB	R	BH	TB	PO	A	E
Bates, l. f.....	5	1	2	4	4	0	1	Miller, s.....	5	1	2	4	2	5	0
Smith, c.....	4	0	1	1	6	1	1	McDonald, c5	0	1	1	8	0	0	
Chase, c. f.....	5	2	2	3	3	0	1	McMillan, p.5	0	2	2	0	6	0	
Cordley, r. f.....	4	2	1	1	0	0	0	Hibbard, l. f.5	1	1	1	0	1	1	
Canfield, 3b.....	5	2	3	3	1	0	1	Lampson, r. f.5	2	3	6	1	0	0	
Yerkes, p.....	5	1	2	6	1	9	1	Carpenter, 2b.5	2	2	2	3	1	2	
Howe, 2b.....	5	1	1	1	9	0	0	Bailey, 1b.....	5	2	2	2	9	0	
Shepard, s. s.....	5	1	0	0	1	5	1	Wilkinson, c. f.5	2	2	4	3	0	0	
Bulson, 2b.....	5	1	3	3	2	1	1	Gale, 3b.....	4	0	1	1	1	2	
	43	11	15	22	27	16	7		44	9	15	23	27	14	7

	1	2	3	4	5	6	7	8	9	R
University.....	0	2	0	0	0	6	0	0	1-9	
M. A. C.....	0	2	0	2	2	4	0	0	1-11	

Earned runs—University, 7; M. A. C., 5. Base on balls—University, 3; M. A. C., 3. Hit by pitcher—Smith, Cordley. Left on bases—University, 8; M. A. C., 5. Struck out—University, 7; M. A. C., 6. Two base hits—Chase. Three base hits—Bates, Yerkes, 2; Miller, Lampson, 2; Wilkinson, 1. Passed balls—Smith, 3; McDonald, 7. Wild pitches—McMillan, 3. Time of game—2:30. Umpire—Hemphill.

A gold medal is to be given to the member of the base ball team making the best average in base hits during the season. The record up to date is as follows:

NAMES.	Games	A. B.	B. H.	Average.
Yerkes.....	7	31	15	.484
Bulson.....	7	27	12	.444
Bates.....	7	34	11	.323
Smith.....	7	33	10	.303
Chase.....	7	33	10	.303
Learned.....	3	10	6	.600
McCulloch.....	5	20	8	.400
Cordley.....	6	31	11	.355
Canfield.....	6	32	9	.281
Hemphill.....	1	4	1	.250
Shepard.....	6	25	6	.240
Howe.....	1	5	1	.200

College Yells.

The original shouts of the colleges were a repetition of the names of the college. This gave an advantage to the colleges which had sonorous names, and as the constant aim of cheering is to make more noise than other cheerers, new yells were evolved by a process of evolution. These came into existence a quarter of a century ago, when Yale and Harvard had their boat races on Lake Quinsigamond, when the 'Rah! 'Rah! 'Rah! thrice repeated was first heard. Harvard sounded the 'Rahs full, and added "Harvard," pronounced so that the *ar* and a clipped *d* were all that were heard. "Yale" was added to the New Haven College's 'Rahs with a long howl on the a.

Princeton's cheer was developed soon after as Princeton came into athletic relations with the other colleges. They took the three 'Rahs for a basis and added the sky-rocket six-boom-ah, which they hold on to as long as the nine 'Rahs of their opponents hold out, and then yell "Princeton" as a calliope climax. Dartmouth has one of the most novel cheers of all. Some Indian must have invented it, and stout college lungs give it a right afflatus. It is Wah-hoo-wah! Wah-hoo-wah! Diddy, diddy Dartmouth! Wah-hoo-wah! It is very picturesque, and only a Sophomore can Wah-hoo to the best advantage. The hoo is like a human owl's hoot.

Everybody has heard Columbia's Hooray! Hooray! Hooray! C-o-l-u-m-b-i-a! The name is spelt out rythmically. Johns Hopkins University at Baltimore has taken the ground plan of the cheer and built on it, adding J-o-h-n-s H-o-p-k-i-n-s, instead of C-o-l-u-m-b-i-a. Stevens Institute at Hoboken and Union College at Schenectady have similar cheers.

Rutgers has a cheer almost as original as Dartmouth's. It is 'Rah! 'Rah! 'Rah! Bow-wow-wow! Rutgers! Williams has an entrancing and resonant 'Rah! 'Rah! 'Rah! Willyams! yams! yams! Pennsylvania University has a wild Philadelphia cheer without any special charm. It is the three 'Rahs and Penn-syl-van-i-ah! The yell of the University of California is sonorous and well turned. Like Pennsylvania, the students take advantage of the last syllable of the State's name. The cheer is Ha! Ha! Ha! Cal-i-for-ni-ah! Boom-ti-ra-da! The College of the City of New York cheer better. They 'Rah three times and add C! C! N! Y!

Cornell has a cheer that can never be forgotten. It is like the rhyme of the passenaire. It is given with proper emphasis only in times of excitement. Here it is: Cornell! Cornell! Cor-cor cor-nell! I yell like —! Cornell!

The yell of the University of Michigan is, "U. of M.! Rah! Rah! Rah!" repeated as many times as the occasion demands. Cold-blooded and cultured is the super-refined squeak of the Massachusetts Institute of Technology at Boston—not so much in the words, however, as in the intonation. It is, "Rah! Rah! Rah! Tech-nol-ogy!" Trinity at Hartford is on the crest of the wave with her, "Trin-eye-tee! Trin-eye-tee! Trin-eye-tee!" and Brown of Providence is not much behind with 'Rah! Rah! Rah! Rah! Rah! Rah! Brown! A curious yell is that of Union College of Schenectady, N. Y.; Rah! Rah! U-n-i-o-n! Hika! Hika! Hika!

Perhaps one of the most interesting yells of the whole lot is that of Tufts, College Hill, Mass., where they cry thus: "Hoop-la! Boom-yah! Rah! Rah! Tufts! Hoop-la! Boom-yah! Rah!" Amherst says: Rah! Rah! Rah! Rah! Rah! Rah! Amherst! Syracuse University startles the air in this fashion: "Srah! Srah! Srah! Syr-a-cuse!" three times repeated. There is but one more tune in the box, but Oh! what a fine one it is, and what sweet memories are associated with its osculatory sound! The word yell, as a college characterization, is dismissed, for it has a harshness about it that is not suited to convey a sound, a strain of music which is altogether tuneful and which has in it all the softness, and tenderness, and pleasant fragrance of roses and moonlight and mellow youth tide. When she came from Vassar two or three years ago (ah me, she's married now), she gave me, or rather whispered to me, her college yell—whispered it to me on a moonlight excursion steamer, and now as I start the sweet, tinkling music box of memory a going, after these many, many days, out comes again the melody of fair Vassar:

Rah! Rah! Rah! Yum! Yum! Yum!
(Kiss! Kiss! Kiss!) Vas-sar!

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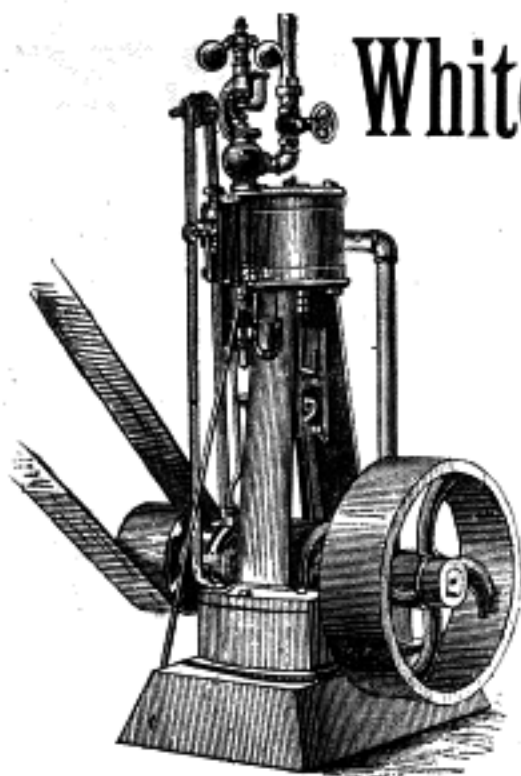
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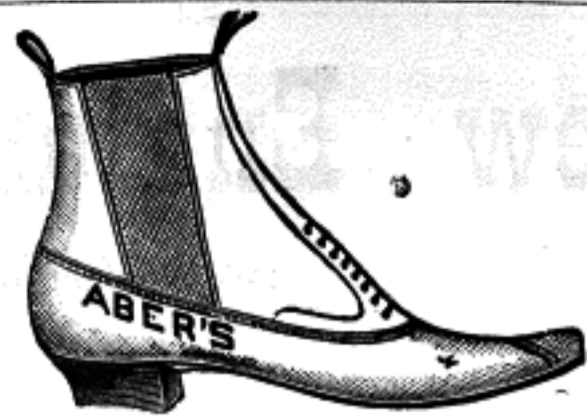
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