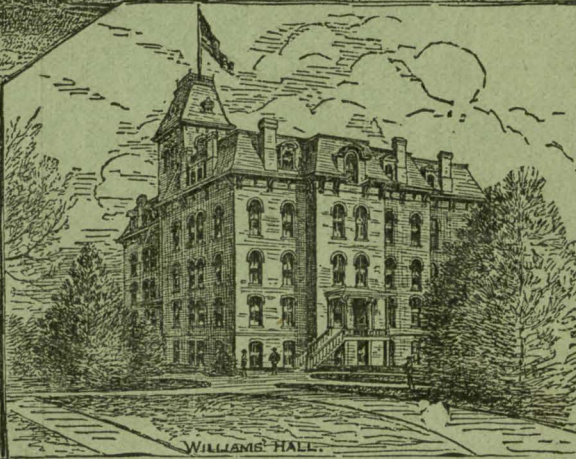
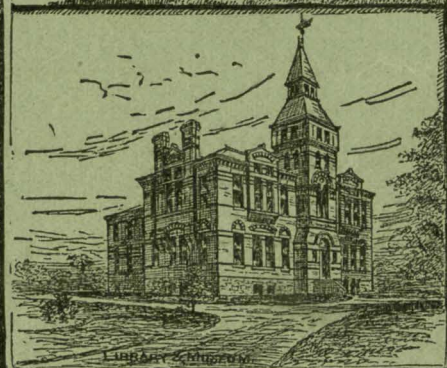
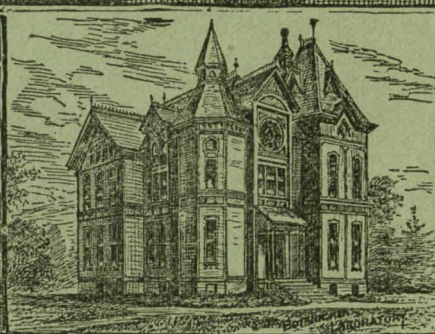
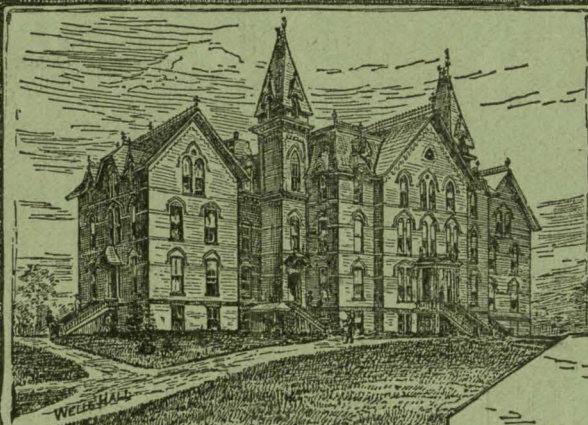


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WHOLE No. 25.

A Wide Range of Knowledge is Essential to Success.

A. E. BULSON, JR., DELTA TAU DELTA FRATERNITY.

From the earliest times the opinion has been prevalent that a person, in order to make a success of any particular profession or pursuit, must confine himself to the study of that branch alone. This view often exists in the minds of some to-day. The young man desirous of becoming a mechanic quits his studies at the graded school, thinking the only education necessary is that pertaining to his business; the young man with the intention of becoming an "M. D." begins study in a doctor's office before he has acquired enough education to enable him to understand half the terms and phrases used in the medical books which he studies; and the farmer takes his son out of school to work on the farm, with the explanation that his son has an education in the common branches, and that is sufficient for the common business transactions of the farmer. But can we say this is the right view of the matter? It is true their minds will be stored with a certain kind of knowledge pertaining to their business, which grows out of experience in that line, but they have not that wide range of knowledge on various subjects which is essential to success when one is thrown in contact with the educated world. The majority of men following this plan are unsuccessful in business, and when explaining the cause of their failure are apt to lay the blame to ill luck rather than their ignorance. A merchant was heard to remark that he drew a larger trade from the farmers surrounding him than he otherwise would, because he was once a farmer himself and therefore could talk intelligently and with interest regarding the farmer's business, thus producing a favorable impression on such customers. Thus it is in every occupation; a knowledge of various subjects and pursuits will prove to be of more benefit to a successful business development than a knowledge of one subject or pursuit.

Many men regret having confined themselves to one range of study by failing to succeed in obtaining the distinction at which they aimed; and through lack of knowledge in any other branch of business, or the powers of thought and habits of mind gained by a wide range of study, they are unable to pursue any other career than the one on which they started. It is a noticeable fact that our students when finishing their college course obtain responsible positions in most any business, when men with experience, but without educa-

tion, could not get the same positions; and it is also a fact that these students, in a comparatively short time, show more proficiency than the uneducated men who have worked for years.

The idea that a man in any pursuit should not have a general knowledge of all branches is erroneous and should be disregarded by all young men who wish to succeed in business, and by parents in advising their sons regarding the best course to be pursued when starting out in life.

Parents sometimes say that their sons, in taking a college course, are learning a great variety of things which will be of no use to them in the career which they are destined to pursue, and that the professors are ministering to their vanity by making them believe they are wiser than they really are. These objections are utterly futile. As to vanity and conceit, those are most vain and conceited who know the least. The more a man knows, the more he acquires a conviction of the extent of that which he does not know. A man ought to know a great deal to acquire a knowledge of the immensity of his ignorance.

To imagine that a range of knowledge disqualifies a man for the particular career and profession to which he is destined is a great mistake. Nothing can be more proper than that a young man, having selected a particular profession, should devote the utmost vigor of his mind to qualify himself for it by acquiring the knowledge which is necessary for distinction in that line of life; but it would be a great mistake for him to confine himself to that study alone, and it is certain that the more a young man knows of a great variety of subjects, and the more he exercises his faculties in acquiring a great range of knowledge, the better he will perform the duties of his particular profession. That sort of general knowledge may be likened to the gymnastic exercises to which soldiers are accustomed. It is not that it can be expected that these particular movements would be of any use to them on the day of battle; but these gymnastic exercises render their muscles flexible, strengthen their limbs, invigorate their health, and make them better able to undergo fatigue, and to adapt themselves to all circumstances. So with a wide range of study; it sharpens the wits; it infuses general knowledge into the mind; it sets a young man thinking; it strengthens the memory and stores it with facts; and in this way makes him a better and more able man in the particular profession which he is intended to pursue.

It has been well said that in this free country there is

no barrier between classes, and that the highest positions are attainable by persons starting from the most humble origin. If he has only talent; if he has only acquirements; if he has only perseverance and good conduct, there is nothing within the range of the institutions of learning in the country to which any man may not aspire, and which any man may not obtain.

It is the peculiar character of this country, as distinguished from many others, that whereas in some countries, unfortunately for them, men strive to raise the level on which they stand by pulling others down, in America men try to raise the level on which they stand, not by pulling others down, but by elevating themselves. Thus by a thorough knowledge of the more important branches of learning, a man may raise the level on which he stands by elevating himself, as a result of his own exertions, to the first rank of successful business men.

Let not the young man, and let not his parents think that he will gain nothing by struggling for a thorough education in the branches pertaining to the various pursuits of life, instead of applying himself to one range of study, for you may be sure he has acquired a vast amount of useful knowledge that will be of use to him in any career which he may wish to pursue; and he has succeeded in acquiring habits of mind and powers of thought, and of application, which will be of use to him during the rest of his life. In getting an education he has gained a treasure which to him will be of infinite value—those habits of mind, those powers of thought, and that amount of knowledge upon which is based a successful career.

Every student has reason to thank his parents for having induced him to thoroughly prepare himself for life's work by getting a thorough education, and no student will ever have reason to regret any of his exertions in obtaining a wide range of knowledge, thus rendering him better able to struggle through life in whatever career he may choose to pursue.

What we Owe to Thomas Carlyle.

H. B. CANNON, UNION LITERARY SOCIETY.

It is well for us to ask wherein lies the greatness of Carlyle; for few writers upon philosophical, historical, and biographical subjects have had more readers. Some think by process of reasoning, some by an intuition grasp the "mother notion." Carlyle is of the latter class, as he says in *Sartor Resartus* "Our professor's method is not that of common school logic, where the truths all stand in a row, each holding by the skirts of the other." The effect of this upon his style is, often times, to make him confusing. He sees the star and points to it; we peer into space, but catch no glimmer until we have patiently sought it.

Carlyle has the soul of a poet; he feels to the inmost

fibre that the external must have an internal, that life is not a mere pageant, but a stern reality. "The silent Immensity, and Palace of the Eternal, whereof our Sun is but a porch lamp," had an inexhaustible mystery for him. The grandeur of the starry hosts of heaven thrilled him with the deepest emotion. He contemplated with religious awe the feebleness of human intellect to project itself into the great unknown; with a "shudder of veneration and hope" he paints the efforts religions have made to pierce this darkness.

"With the gift of song," says Lowell, "Carlyle would be the greatest epic poet since Homer." This poetic instinct is seen in his descriptions of events and persons. Vivid as a scene lit by a lightning flash, accurate as an instantaneous photograph, his characters stand before us, living, moving, feeling beings. Again we see Cromwell at the council table, his gray eyes flashing, his mouth set in determination. We see him ride down the line of battle and hear his Ironsides cheer, or shifting the scene, he stands in Parliament denouncing the weaknesses and follies of it, and when come to the climax in his speech we hear him thunder, "Get you gone! Give way to honest men!"

Carlyle sets the characters before us just as they were, exact even to the lacing of their shoes, and asks us to judge for ourselves of his editorial comments. Carlyle says we must not take our ideas at second hand but study for ourselves, and further, study history wisely, remember wisely and forget wisely. Under the rank growth of the present, amid heaps of damp and mouldy accumulations may be a living fact; strive after it; get it.

His writings are a series of pictures which he has united by exclamations and apostrophes. He employs figures at every step; for he must touch form in order to express himself vividly. He writes with a quaint humor, but beneath the humorous of his nature the poetic is ever present. This brings about strange results, as Taine describes it, "In the monotonous mist of prose, a vista opens up; beautiful or ugly it matters not; it is enough it strikes our eyes."

There are two influences which prevent Carlyle from expending his fury of conception in hallucination, "the sentiment of actuality, which is the positive spirit, and of the sublime, which makes the religious spirit." In his *Cromwell* we can see how the sentiment of actuality possesses him. He would search long and earnestly for a proven fact; for he knew what it meant; its influence upon him was so powerful that he can cause us to feel its force.

Carlyle was peculiarly fitted to be the historian of Puritanism. Where other men had seen only repulsive traits, Carlyle looked deeper; with his instinct for the mainspring of action for a lamp he illumined the musty records, there with wonderful perspicacity he found proof that the Puritan had something besides a nasal twang, that he had indeed a soul; a soul filled with longings, a soul profoundly impressed with a sense of duty.

Carlyle had found the expression which his canvas should give; his creative imagination painted the Puritan as he never before had been painted. Carlyle's histories have been called epics in prose. This is owing to his selecting the foremost characters and by painting these and a few auxilliary ones he gives us a vivid conception of an event. The men are something more than names. Carlyle always thought the great men of action were stamped with the seal of the times. In his *French Revolution* he applies this doctrine. Here, by his drawing the pictures of the leaders, we are given a series of "lurid pictures unmatched for vehement power." His purpose in writing seems to have been to give such an impression to us that we could not think of the revolution without shuddering. How much need there is that some Frenchman should translate this with all its intensity of color, all its terrible vigor, that it may deter those now wishing to act again the tragedy of the last century.

Carlyle stands alone in his method of delineating character. By comments upon the letters and speeches of Cromwell and a continuous narrative, he is made to stand out a reality in our minds. Carlyle looked upon men having great development in any one direction with a sense akin to adoration. He felt that such men in their own lines were supreme, and that others should defer to them. In his lecture upon heroes, he says, "It is the property of the hero in every time, in every situation, that he stand upon things, and not the show of things." The great man discovers a fact and proclaims it; men follow him in this, and history is made. Carlyle is imbued with this process. He makes of it an instrument of research most potent. I quote from Taine on this point: "Everywhere he goes beyond political and conventional history. He divines characters, comprehends the spirit of extinguished ages, feels better than any Englishman, better than Macaulay himself, the great revolutions of the soul."

Carlyle, because of the great tension of imaginative conception under which he writes, is constantly repeating after Shakespeare, "We are such stuff as dreams are made of." He says, "The divine significance, full of splendor, and wonder, and terror, lies in the being of every man and of every thing; the presence of God who made every man and thing."

Men of Carlyle's type of mind are the only ones who make discoveries. Pure classifiers do not invent. "To know a thing, what we call knowing, a man must first *love* the thing, sympathize with it." In order to completely know it we must recreate it in our minds with all that may result from it. This process is in imitation of nature. Carlyle used this in working over the teachings of Goethe, his master. This was the work in philosophy which held Carlyle's attention, an important work it is; for German thought has led the world for a century. Here in a nut-shell is his idea of matter: "Rightly viewed no meanest object is insignificant;

all objects are as windows, through which the philosophic eye looks into Infinitude itself."

There is always a mystery in life to Carlyle. "Around this Me what is wrapped?" he exclaims. Again he says, "To the eye of vulgar Logic, what is man? An omnivorous Biped that wears Breeches. To the eye of Pure Reason what is he? A Soul, a Spirit, and Divine Apparition." Garfield saw possibilities but-toned up in the meanest jacket; Carlyle saw in every soul a *something* beyond his closest scrutiny. This is another expression of his poetic nature.

Carlyle's influence is mainly a religious one. He preaches in all his works, nor is it in vain. Principal Shairp says Carlyle's works, upon their coming out, influenced the Oxford under-graduates as no one had before. Froude also says, "To the young, the generous, to every one who took life seriously, who wished to make an honorable use of it, and who could not be content with making money his words are like the morning reveille." And Carlyle himself lays down the correct motive of life in these noble words: "Oh, it is great and there is no other greatness. To make some nook of God's creation a little fruitfuller, better, more worthy of God; to make some human hearts a little wiser, manfuller, happier, more blessed, less accursed."

The Benefits of National Holidays.

D. F. ANDERSON, OLYMPIC SOCIETY.

The celebration of the anniversaries of great events has been a custom among civilized nations almost from the earliest times. When the Israelites became a separate nation there were certain days set aside by the Mosaic law for holding certain religious festivals. These immense gatherings kept fresh in the minds of the children of Israel the sufferings of their fathers, the oppressions of the Egyptians and the deliverances they had received from the Lord. And besides this, these gatherings awakened or kept alive a bond of sympathy between the different portions of the Jewish people. By intercourse, one with another, they gained a knowledge of each other and formed a stronger national feeling than could possibly have been fostered in any other way.

In Greece, the Olympiads and other festivals, formed and cemented the bond of intellectual union which was much stronger than any other tie in binding together the various divisions of the Grecian country. And the magnificent triumphs accorded to victorious Roman generals doubtless nourished among the Roman people and soldiers a spirit of patriotism which could not have been gained in any other way.

Thus we see that, in the olden times, the celebration of holidays was productive of much good. But the question is, "Are they productive of good now?" In these days people are nearly all educated, and knowledge is transmitted with great readiness by means of the press,

the railroad, and the telegraph. So we see that the circumstances are much changed over those of olden times, in this, as in other regards. Still there are certain objects which can not be gained by any of these means. What can bring so vividly to our minds the sufferings and privations, the daring and heroic sacrifices of the soldiers of the late war as the simple and beautiful services of Memorial Day. And on the Fourth of July we have all felt our hearts beat, and the hot blood rush to our cheeks at the recital of wrongs to be redressed, and principles to be maintained, in the immortal Declaration which crowns the natal day of our republic. Standing there by the altar which our fathers reared, and upon which they poured out their blood, we have felt that, with Divine aid, we would prove ourselves, in peace or in war, to be worthy of such fathers.

Later in the year, in the quiet November month, comes Thanksgiving day. A day of family reunions, of happy meetings between long separated friends, a day of feasting and rejoicing over the bounties of Providence, which can not but be productive of good.

Last but not least comes Christmas. The day on which we celebrate the birth of the Savior, and the advent of the kingdom which has raised the world from the darkness it was in, to the light of civilization it now enjoys. The songs and rejoicing call to our mind the song of the angels in the plain of Bethlehem and the great proclamation, "On earth peace, good will toward men." This day we celebrate by gifts one to another. Our happiness is greatly increased if we have added to the happiness of our friends. And we are made better by stopping in our work and bestowing some of our goods upon those around us.

Then let none condemn our holidays. True, some abuse them and some never seem to realize their significance. But this is so of any good thing. And let none think of ceasing to observe these great days but rather to impress upon the mind of the people their true significance, and raise them to be true expressions of patriotism and thankfulness

Progress of American Botany.

D. A. PELTON, ECLECTIC SOCIETY.

Upon a comparison of the botanical work of Europe with that of America, the great excess of the former over that of the latter becomes apparent. In our libraries we see volume after volume from the laboratories of Germany, and the herbaria of England; while from America we have but few from the laboratories, and the systematic work does not equal in amount that of Europe. Let us not conclude, however, that America has been idle in this field, nor that what she has accomplished is of little importance.

It has been but a hundred and fifty years since botany began to take rank as a science. In that time, from the primitive wilderness of America, all our institutions

have grown. One hundred and fifty years ago but three of our colleges were in existence. Two of them were in their infancy, and the third, not at the head of botanical work in this country, although it had existed nearly a century, was yet unable to keep pace with those of Europe. As the greater part of all scientific work is always done in the laboratories of colleges and by college professors, we cannot expect as great progress in any branch of investigation from the younger colleges of a new country as we can from the longer established ones of an old country.

At the time when the *science* of botany began to attract the attention of the scientists of Europe, her institutions were well established, had an abundance of means at their disposal, and her professors were prepared for their work.

But in America how different!

To successfully prosecute investigation in any science, the investigator must have previous training, adequate apparatus and time. These have been especially deficient. The opportunities for preparation have been until recent years, very limited in this country, so that for an adequate training it was necessary for a botanist to go to the laboratories of Europe, but this required capital which but few of those who aspire to botanical honors possessed.

Again the instructors in America are expected to devote their whole time to class room work and to lectures. This left little or no time for special investigations, for after a day of class room work one is poorly fitted to spend half the night over a microscope or poring over the specimens of an herbarium. On the contrary, the professors of botany in Europe are furnished with assistants who perform the laborious routine of the class room, thus leaving them to a general supervision of the department and to the delivery of a few lectures each year. This gives them an abundant opportunity for the prosecution of the investigation of special topics.

Having now reviewed the disadvantages and peculiar circumstances under which the American botanists have labored, let us consider what they have really accomplished.

In the study of botany in a new country, systematic botany is always in the ascendancy, and America is no exception to the general law. The most striking and distinguishing features of natural objects are the first to receive investigation from the scientist. So it is but natural that the botanist should first turn his attention to the study of the variations and affinities of the floral kingdom and so determine the natural groups and orders to which the plants belong. In order that this study and classification may be carried on successfully the student must have before him representatives of the various forms for comparison, hence, the first work of the botanist is collection.

For two centuries after the study of our flora began to attract botanists, the work was one of collection.

What may be termed the formative period of American botany. During this period many foreign botanists visited our shores, and many large collections of plants were sent to Europe for study and identification. To attempt to name all who have left their names upon the records of botanical history would not only occupy too much space but make an uninteresting catalogue. But there are some, as Peter Kalm, John Clayton, Andre Michaux, and Pursh, not to exclude Nuttall who have left upon the enduring records of botanical fame, names that will ever be pointed to with pride by the American botanist. While Kalm and Clayton must be content with *Kalmias* and *Claytonias* the latter three have the greater honor of being authors in the literature of botany. Michaux as the author of the first *Flora*, Pursh as the author of the second and more complete *Flora*, and Nuttall as the author of *Genera of North American plants*. Michaux was the most indefatigable collector that has ever honored the science in this country. Traveling at the time he did, we can scarcely form an idea of the hardships he endured in the prosecution of his chosen field of work.

After these came the names of two, who, while familiar to all now, will ever continue to shine through the succeeding years of botanical literature, the names of Dr. John Torrey and of Dr. Asa Gray. With the formation of the partnership of these two men begins the brightest period in our botanical history. From this time we have had continual additions to the literature, coming chiefly from the pen of Dr. Gray. Their first important work was the publication of their *Flora of North America*. For various reasons this was discontinued until after the death of Dr. Torrey, when the work was finally taken up again by Dr. Gray, and two volumes have already appeared, with the prospect of a third one soon. May he who has led his science in America for over half a century, be spared to complete the work he has so nobly begun! Not alone has he been chief in systematic botany, but also in plant morphology he holds a leading place. As a careful student and exact writer, he is unexcelled. His descriptions are models of scientific exactness.

Among our later botanists must also be mentioned Edward Tuckerman, the lichenologist, to whom we owe the *Genera Lichenum*, and the synopsis of North American lichens. D. C. Eaton, for his magnificent work, illustrated by C. E. Faxon, on the ferns of North America, and also the name of Dr. Engelman.

Thus we see that while the work in systematic botany may not be equal in amount to that of Europe, it, at the same time reflects great credit on the botanical work of America, and shows that she has not been idle. While we cannot point to any great work on physiological botany, yet in systematic botany we must claim a high position. About 1870 an interest began to manifest itself in favor of the laboratory as an assistant in the teaching of botany. Harvard took the lead in the establishment of a fine laboratory, which is now the

best in this country, and vies with many of the European in the completeness of its outfit.

But it remained for the Michigan Agricultural College to erect the first building dedicated entirely to this important science. Other colleges have since followed their example. With increased facilities for training in the special departments we shall have an increase of interest in their investigation, and in the near future we may expect something from our physiological and histological botanists.

NATURAL HISTORY.

Aquatics in Our Botanic Garden.

Among the most interesting and satisfactory plants in the botanic garden are the aquatics in the bogs and ponds. They are well worth attention as they are not often found in ornamental grounds.

In the upper bog near the inlet from the brook, are plants of yellow water-crowfoot with bright glossy petals and dissected leaves, common arrow head with dark, clean leaves of various forms, some very long and narrow, others quite broad and obtuse. The arrow head is a wayward plant, hard to keep within bounds, as its root-stocks spread far and near in the mud. Water plantain (*Alisma Plantago*) is a beauty when young and when in flower or fruit, but it seeds so freely that it becomes a weed. A true plantain—a native much resembles the broad leaved species often introduced in dooryards. The plantain referred to is rare in Michigan, and grows in brooks and in the margins of ponds. It flowers early in spring and goes to rest in early summer. We have a little trouble in keeping the pitcher plant, though we are now trying a heavy mulch of sphagnum. Pouchet, a Frenchman, wrote a book on the Universe. He speaks of this plant growing in the marshes of North America as very welcome to the traveler, because it secretes pure water which quenches his thirst. The fact is, the pitchers usually contain water that is far from pure, as it contains a plenty of rotten insects and worms. A closet naturalist sometimes covers too much ground and makes mistakes.

We grow a few cranberries, which are very neat in all stages of growth. Swamp dock, water persicaria, swamp saxifrage, lizard's tail find places and are made welcome. The latter is about two feet high, and in July bears long drooping spikes of white naked flowers. Here, also, is some of our glaucous native foxtail, and a "new find" for this part of the State known as *Glyceria pallida*.

One of the most attractive things is the narrow-leaved cat-tail flag brought from Massachusetts, and further down grow some immense plants of our common cat-tail. These need some portection from winds, and I might add, from visitors as well.

On the still water are scattered patches of duck meat, three species of little floating plants about one-eighth of

an inch or less in diameter. They have no connection with the soil. One of them is rather shy, and for some reason often disappears; another flowers occasionally.

In one place we grow well all the species of the arum family, which are described in Gray's manual. Jack-in-the-pulpit, dragon root and skunk cabbage grow on low ground; and near them in the edge of the water, is sweet flag, our native calla, the arrow arum and golden-club. The beauty of the arrow arum consists in clean, large, dark green leaves. The golden-club thrives and endures the winter when set in the mud where the water is six inches deep. One plant bears early in the spring fifty or more curved white stems a foot or two long with yellow spikes of flowers. At that time the leaves are small, but later in the summer the rich velvety looking oblong leaves make a fine display. Altogether, it is one of our most striking and satisfactory aquatics.

The buck-bean is an aquatic or bog plant, with three smooth leaflets. The petals are beautifully fringed all over the upper side. The bladder-wort is, in many respects, one of the strangest aquatics we have. The leaves are long and dissected. They bear little bladders with a lid at one end which works after the manner of an eel trap to catch small animals, like infusoria, and after capturing them they are slowly killed and doubtless help to nourish the plant. In autumn, as one of our students showed, the terminal buds, as large as the end of one's finger, sink to the bottom of the pond and remain till spring, when they begin to grow and rise to the top. The stigmas are flat, two lobed and spreading. When an insect visits a flower it bites the stigmas first. These are very sensitive, and close in a few seconds so that cross-fertilization is secured.

Water-weed and eel-grass are two very curious aquatics, and are quite abundant in the upper pond. When ready for fertilization, the slender stems which support the pistils, let the pistils come to the surface of the water. Then the anthers below break off, come to the surface, burst open and the "dry" pollen floats to the stigmas and fertilizes the pistils. After fertilization the pistils are withdrawn under the water to ripen the seeds. A number of aquatics drop the fertilized pistils into the water to mature the seeds. In some seasons the pond scums, or frog slimes are so very abundant that it requires considerable time to skim them out of the ponds. In other years they are scarce. We raised successfully for a few years, a beautiful branched green sponge brought from Grand Ledge.

I barely mention wild balsam, or touch-me-not, swamp loosestrife, water parsnip, the iris, the cardinal flower, blue lobelia, bull-rush, water shield, *Limnathemum*; they all deserve a place and have interesting peculiarities worthy of careful study.

Pickereel weed, growing near the pond, bears spikes of blue flowers. It is one of these plants of which there are only a very few known that has "trimorphous flowers." Here let the Junior and Sophomore look up

this topic by reading Darwin's book on *Forms of Flowers*. *Marsilia* is the flowerless plant growing all about the lower pond, and bears leaves somewhat like a "four leaved" clover. It is a foreigner, but takes to Michigan water amazingly. Reed grass, rice grass, several glycerias are at home and are very ornamental at certain seasons. Wild rice is an annual aquatic, sometimes ten feet high. The whole plant is full of interest and well worthy of a week or a month of careful examination. It is easily grown, and no pond should be without some specimens. Every one knows our yellow water lily, the white water lily, and many have heard of the pink lotus, said to grow in Southern Europe and in Northern Africa. It is more vigorous and prolific and easier to grow than our native plant. The white water lily of Europe is vigorous and some two weeks earlier than our native lily. The blue water lily has not been a great success with the care we have been able to give it. The pink variety of the white water lily is one of the most beautiful flowers I ever saw. Several flowers have appeared during this year. Insects are doing much damage by eating the leaves. I feel that too many of these worthy aquatics and bog plants have been here too little noticed. Our students and visitors must see how easily they are managed, and that many a neighborhood may possess one or more of these ponds which shall be the delight of every student of nature. The zoologist, of course finds much in such ponds to study.

These pools are favorite resorts for certain snakes, turtles, musk-rats, water beetles, water bugs, dragon flies, caddis flies, water skippers, periwinkles, clams, frogs, tadpoles, toads, sticklebacks, crawfish, numerous small crustacea, infusoria, and other things too numerous to mention. On account of some of these lively and voracious animals we have not succeeded with carp. Musk-rats began to visit us about June, and are the worst enemies of our aquatics. Last year we caught seven or more in traps.

About the ponds, as in other parts of the botanic garden, the florist finds much to admire, the artist picks out the views which suit him best; no doubt poets and lovers find this a pleasant resort, while the pleasure seeker thinks it worth looking over. Some farmers think they have frog ponds enough on their farms, while others take notes with a view to fixing up that rough piece of their back of the house. The young girl thinks "the garden is cute," while the student of physiological and systematic botany thinks it a little paradise.

W. J. BEAL.

SCIENTIFIC.

Hot Julys.

The period of unusual heat during a part of the month just closed leads many to say that nothing of the kind has ever been known in this State. Perhaps it may afford a degree of comfort that we have suffered

more at some former period. No such wave of heat has passed over our State for nineteen years. In July, 1868, a longer, and in some respects, a severer wave of heat passed over us and caused that month to be known for many years as "the hot July," the average temperature for the month being higher than that of any month in twenty-five years, the mean temperature for July, 1868, being 77.19 deg., or 5.58 deg. above the mean temperature of July (the warmest month of the year).

The following table of highest and lowest temperature for the several days will enable the reader to compare the heated terms for July, 1868 and 1887:

	1868.		1887.	
	MAX. TEMP.	MIN. TEMP.	MAX. TEMP.	MIN. TEMP.
July 10.....	92°	62°	92°	56°
11.....	95	66	94	69
12.....	95	66	89	62
13.....	95	67	89	67
14.....	95	67	95	73
15.....	97	62	96	76
16.....	91	63	95	67
17.....	101	66		
18.....	99	67		
Average.....	96.55°	65.1°	93.7°	67.1°

It will be seen that the heated term for 1868 reached a temperature more than three degrees hotter than in 1887, but the nights were two degrees colder.

The rainfall since March 1st has been much below the average, as shown by the following table:

	AVERAGE RAIN FALL.	RAIN FALL FOR 1887.
March - - -	2.63 inches.	1.78 inches.
April, - - -	2.51 "	90 "
May, - - -	3.13 "	2.42 "
June, - - -	4.36 "	2.47 "
July, - - -	3.69 "	1.50 "
Sum, - - -	16.32 inches.	9.07 inches.

This shows that we have had since February less than three-fifths of our normal rainfall.

R. C. KEDZIE.

Five comets have already been discovered in 1887, but unfortunately none have been visible to the naked eye. The latest comet was discovered by Barnard, of Tennessee, May 12. While very faint, the relative paths of the earth and the comet are most favorable for observation. Though never coming nearer the sun than one hundred and fifteen millions of miles, it is for some time within hailing distance of the earth at thirty millions of miles. It passed through the plane of the earth's orbit May 27, but at about thirty millions of miles farther from the sun than the earth. The earth passed the ascending node the previous day. From that point their paths remain closely together for some time, the comet passing above the earth's orbit and coming closer to the sun until June 27, when it begins to recede into space never again to be seen.

It passes again the plane of the earth's orbit in December, 1896, but it will then be at a distance of nineteen hundred millions of miles.

Asteroid No. 226 was discovered last month by Palisa, of Vienna. He alone discovered nearly sixty.

THE COLLEGE SPECULUM.

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AGRICULTURAL COLLEGE, MICH., AUGUST 1, 1887.

With this number the SPECULUM begins the seventh year of its existence, with fair prospects for the future. Its financial prospects, thanks to the energy of the outgoing Board, are better than for several years past. Our subscription list has been reconstructed and many who have failed to respond to notices of delinquency in subscription will not receive the SPECULUM after this issue. We take this step because of the expense involved in printing and mailing a large number of copies for which no return is received. If subscribers on our mailing list who have paid for the SPECULUM fail to receive it, they should notify the Business Manager. He should always be notified of a changed address or the paper will be sent to the former address and thus cause trouble both to him and to the subscriber.

We shall endeavor to keep the paper up to the standard established by its first Board of Editors and continued, in the main, by succeeding Boards to the present time. We regard it as the means by which the views of the students can be openly expressed on the subjects that most nearly concern them, and we shall, in discussing such subjects ask a respectful hearing of our readers.

In view of the alumni reunion to be held next year, the department of Personals should be of special interest to all graduates. The success of that department depends largely on alumni and they are asked to send in any information concerning themselves or their college friends that would be of general interest. A little exertion on the part of each alumnus will enable us to make the department of Personals what it should be.

In following out the line of thought suggested by the Baccalaureate address at the University commencement, one of the Detroit dailies suggests that the various denominational colleges and the Agricultural College should be combined with the University. While we have nothing to say concerning the denominational colleges we do protest against any such plan concerning the Agricultural College.

The plan is not a new one, for it was proposed when the College was founded and since then has been several times brought to notice. The only apparent cause for its reappearance at this time is the feeling now existing among University men that the College has been favored by the governor at the expense of the University. They lose sight of the fact that the College bill contained the proviso that he wished to have inserted in the University bill and the absence of which in that bill caused his veto. They consider that his signing of the college bill as passed by the legislature, was evidence of his partiality toward this institution and their friendliness for the Agricultural College is not increased thereby. With this feeling toward the College the change is proposed.

So far as the University is concerned the change would be advantageous, for a more liberal endowment of her scientific departments would inevitably cause an increased attendance of students. The University is not, however, the all in all of the educational system of our State. She has her field of work and right nobly has she performed the tasks assigned to her, but the work done by this college she can not do. The experience of several of our neighboring States proves that the kinds of educational work peculiar to the agricultural colleges can not be successful at universities.

Many of our students come from farms, workshops and the humbler walks of life. They desire to fit themselves for useful occupations but do not wish to enter the professions. That there is nothing degrading in the fact that a man is a mechanic or farmer does not prevent the ordinary professional student from looking down on his less polished, though often times more useful brother. The result of this feeling in a university is that the departments of Medicine and Law are filled with students while the number in the agricultural and mechanical departments grows "small by degrees and beautifully less" and the usefulness of the latter departments is thus lessened.

The increased expense attendant on university life would deprive many students who can now avail themselves of college privileges, of the opportunity to obtain an education. This college has earned a reputation as a college where the poor boy can pay his own way, and any change will injure a large class of students whom the college was destined to benefit.

The objects for which this college was founded were the promotion of Scientific Agriculture and the Mechanic Arts and by its acceptance of the Congressional land grant for the same purpose the State has

bound itself to so apply the funds arising from the sale of those lands in the manner which will best promote those ends. A comparison of the plan pursued in this State with those pursued in other States shows that the agricultural college is far more successful when kept distinct from the university or classical college than when joined to such institutions. Such is the verdict of those who have made the question a study, and such must be the course pursued in the future if there is to be a continuation of the valuable work already done by this college.

A RECENT number of the Hillsdale College *Herald* contains a communication concerning an inter-collegiate field day and oratorical contest which meets our hearty approval. The writer proposes that instead of holding a public field day at each college in the State, as was done this year, the colleges have separate contests and the winners in these contests meet at one of the colleges and hold an inter-State contest, both in sports and in oratory. The field day side of the question is discussed in the department of athletics in this issue, and we call special attention to that article.

In oratorical competition Michigan is far behind her sister States. The colleges of Illinois, Indiana, Ohio, Wisconsin, and other States of the northwest, hold annual oratorical contests and send the winner in each to the State contest. The winner at the State contest goes to the inter-State contest, in which the whole northwest, save Michigan, is represented. We know of no reason why Michigan should not compete with other States. Her colleges ought not to be inferior to those of other States in this respect, and if equal to other States they should be represented. Such a competition would stimulate all our students in their rhetorical work, and would thus aid in raising the standard of excellence in the various colleges.

For our own college this would be of special importance. At present there is no stimulus to the student to put forth his best efforts, except the wish to make a creditable showing before his fellow students, and to increase his own ability in this line of work. No prizes are offered for proficiency in public speaking as is done in the other colleges of the State. The average student grinds out the work assigned him and considers himself very fortunate when he has finished his public speeches. That this state of affairs is a result of the plan of instruction followed here we do not believe. Our course in English and in rhetorical writing and speaking is a good one, and only needs some such stimulant as the one proposed to produce good results. A healthy competition would bring out the hitherto undeveloped talent and make a better showing for our college in literary work.

To secure such a contest for next year it will be necessary to take the initiatory steps next term, and a committee must be selected to confer with committees from the other colleges on this subject. Action might be

taken by the literary societies early in the term, and the matter started in that way. The preliminary contest would probably be held about the middle of our spring term, and contestants would need to prepare themselves in part, at least, during the winter vacation. At all events let us discuss the plan among ourselves and take action as will best promote the interests of the college.

For many years this college has had a widespread reputation as a school where landscape gardening could be studied with peculiar advantages. Our catalogue mentions our "beautiful and extensive grounds" as furnishing an important aid to students who wish to study this branch of art, and as an inducement for such students to enter the college. Lectures in this subject are illustrated by views on the grounds, and thus the student studies from nature.

Of course with such a condition of things, all possible kinds of scenery must be present, and in those parts of the grounds where they will form a harmonious feature of the landscape. We are taught that beautiful buildings require velvety lawns and trees of delicate foliage, while those of a picturesque appearance are satisfied with rougher surroundings. If these principles were followed in the system of landscape gardening, that has been practiced here this summer, Wells Hall must be fearfully picturesque. The lawn between it and College Hall has been rough and shaggy enough during the present summer to form a fit setting for a ruined castle of the most dilapidated type.

The lance-leaved plantain has flourished in great profusion, and the festive grasshopper has lived in peace, undisturbed save at long intervals, by the clatter of the mower. The ancient walk over which our alumni trod on their daily journey to College Hall, has given place to a series of "dog-paths." These, though unpretending in appearance, possess the merit of conducting the pedestrian to his destination without compelling him to walk in a bed of dust in summer and a shallow ditch in spring and fall. They do not add to the appearance of the lawn, nor are our visitors favorably impressed by the sight of them. The stakes and miniature hurdles which grace these paths were novelties when first placed in them, but their uniformly barren appearance has rendered them monotonous in the extreme.

The truth of the matter is this: A good hard walk is needed between Wells Hall and Williams Hall, and another between Wells Hall and College Hall. Students who room in Wells Hall use these walks more than any other walks on the grounds, and so long as they remain in their present condition "dog-paths" will be made and the lawn can not be kept in presentable shape, no matter how much work is done on it. The majority of our students take an interest in the grounds and buildings and wish to see them well cared for and neatly kept. The cost of new walks in these places

would not be large, and if good walks are built the boys will gladly "keep off the grass."

THE work system still continues to be a subject of discussion among our students. Ever since the opening of the College, daily attendance at work has been compulsory for all able bodied students, except during a few weeks in the Senior year just previous to commencement. So long as this rule remains on the books it should be enforced. The granting of excuses for trivial reasons is a bad policy to pursue in any case where regular attendance is a requirement. In the class room it breeds contempt of the teacher, and consequent inattention and disorder. In the work system it cannot fail to have the same effect.

A careful study of the course of instruction offered at this College will convince any one that students must work both on the farm and garden at some time during their course. Horticulture and agriculture can not be thoroughly taught unless this plan is followed. To reap any benefit from these studies the student must become familiar with the methods of work and experiment, and this he can only accomplish by engaging in them himself. So far as the compulsory work is educational, it is of value to the student, but as now conducted the afternoon work is almost entirely confined to the two branches just named. The injustice of this plan is evident. Studies that are of as much importance as these two are taught with little time for experiment, and consequently do not benefit the student as they should. Thus in chemical physics the experiments have in the past been crowded into the hours set aside for reading and sports. In entomology the laboratory work is limited to one afternoon each week, and in mechanics the experiments have, in the past, been few, not from lack of apparatus but from lack of time on the part of students. In systematic botany there has been no provision for any work outside of the class room, and thus students do not become well acquainted with the trees and plants on the grounds. All of these studies need more time, and the only time to be had is in the afternoon. The work must, to a certain extent, yield to study and experiment if the best results are to be attained in the teaching of these branches.

The strong arguments in favor of the work system in addition to the one already mentioned, have been that students need the exercise which work gives, and many need the money received for their labor. So far as the former is concerned the student can get more real benefit from an hour devoted to sport in the cooler parts of the day than from three hours of such work as is done by the average student. The money earned at the present rate of wages is but a pittance, and it alone offers no inducement to the majority of our students. If the working force were lessened the same amount of money could be paid to fewer students, and thus those who must work would receive a fair return for their labor. The same amount of work could be done by

three-fourths of the present working force if they received a fair compensation and were graded according to the amount and quality of work done.

The best solution of the problem seems to be to continue the present system with slight alteration up to the spring term of the Junior year, and then make manual labor or laboratory work optional. Students who have reached the middle of their Junior year are capable of choosing for themselves the afternoon occupation which will be most profitable to them during the remainder of their course, and should be permitted to choose whether they perform manual labor or not. More laboratory work and less manual labor for Juniors and Seniors seems the most practical solution, and the sooner the necessary changes can be made the better will it be for both students and College.

SINCE the previous article was written the scheme of work for next term has been adopted by the faculty. It contains several changes and leaves the afternoon programme for next year about as follows.

During the fall term all Seniors who take chemical physics will be excused from manual labor as the recitations will be held in the afternoon. Juniors will work as now except that during the latter half of the term they will have two afternoons a week for work in anatomy. Sophomores will work as now during nine weeks of the term but will have three weeks of work in the blacksmith shop, while the work for Freshmen will be practically unchanged.

Seniors who take horticulture during the spring term will work in the horticultural laboratory, while the work in other classes remains about the same. Military drill will be compulsory for all students this term.

In the summer term those Seniors who take quantitative analysis will take drill, those who do not will work. Juniors and Sophomores will not drill but will work three hours, the Sophomores having two afternoons a week for botany and chemical manipulations. Freshmen work the same as now excepting on Wednesday when they have rhetoricals.

All rhetoricals, and in fact all college work is to end at five o'clock, thus leaving an hour open for the Wednesday afternoon lectures which will come every week instead of in alternate weeks as before, and for the various extra meetings that come from time to time. The new scheme substitutes much laboratory work for manual labor and assigns work of some kind to every student. Those who do not work out of doors or at special work are in the laboratory, and those who are engaged in laboratory work that does not give them sufficient exercise, take drill.

It will be seen that military drill is compulsory during four terms of the course but that those terms are not consecutive. In our opinion this will prove detrimental to the best interests of the military department. Military discipline cannot effect its ends when it is spasmodically applied. The omission of drill during the summer

term for Juniors and Sophomores will leave but few drilled officers to take up the work at the beginning of the fall term, and will cause much dissatisfaction during that term. The requirement that Seniors who take quantitative analysis shall take drill, will lead to much inconvenience as there will be students who wish to take that study without being compelled to take drill.

Taken as a whole, however, the scheme is a great improvement over the old one and seems to be a step in the right direction.

OUR College is keeping step with other educational institutions in more ways than one. During its early history it seems to have been regarded simply as a sort of penal institution where self-sacrificing young men might come to learn to be farmers. Anything not directly connected with science or farming was frowned upon by those in charge, and as a result the College was not over-crowded with students.

Those days are now past, and students are allowed more liberty, both in their work and in their amusements, and often meet with encouragement from those in power when they wish to attempt kinds of work that will add to the reputation of the College. In the larger colleges and universities it has long been customary for the students to publish an annual volume that shall make a complete exhibit of student life. Such a publication gives a better idea of the standing of a college in many respects than can be gained from any publication prepared by the faculty, for it is the work of students who are supposed to represent the quality of material turned out by the college. It is not the work of parties interested in praising the institution and so gives a picture that is more likely to be just than is the regular college catalogue.

Feeling the need of some such publication here, the class of '89 have decided to issue such a volume and have elected a board of editors to take charge of the work. These editors are aided by members of all the other classes, so that it will represent the whole college and not simply one class.

It will contain, among other articles, a biography of President Willits, a history of the College written by one who has long been connected with it, histories of all the classes now here, and a full list of students in attendance, the officers and members of the literary societies, fraternities, and other college organizations. Poetry and fun will be represented, and all the peculiar features of life at an agricultural college will be shown in their most striking form.

It has been appropriately named *The Harrow*, and will be printed on fine paper, $6\frac{1}{4} \times 9\frac{1}{2}$ inches in size and bound in imitation alligator, thus making a neat and attractive volume.

One of the most interesting features will be the large number of cuts which will adorn its pages and illustrate the matter contained therein. These have all been made expressly for *The Harrow*, and will, in many

cases express a meaning that words would fail to convey.

The publishers have spared no expense necessary to make it a success, and they furnish it to all students, alumni, and friends of the College at actual cost, which will be between seventy-five cents and one dollar per copy. It will be issued some time in August, and can be obtained from J. H. Wheeler, who is the managing editor, or from the secretary of the College.

We know of no means by which alumni can secure so much information concerning the student life of the present as by a perusal of *The Harrow*. It is to be hoped that every one who feels an interest in the College and her students, will obtain a copy.

If our respected faculty had searched for a course of action that would leave them in a ludicrous position, they could hardly have found one better suited to their purpose than that they have pursued in making one of the recent suspensions. The spectacle presented, of a body of grave and dignified professors moved to wrath by a glimpse at a picture of one of their body as he appears in the class room, is, indeed, ridiculous enough to excite the risibilities of the most serious man. But their vengeance—may Tom Nast's guardian angel cast a pitying glance on the luckless wight who attempts to relieve the monotony of an uninteresting lecture hour by decorating his note book with sketches however prosaic.

Why a student should be punished for illustrating a private note-book in such manner as he sees fit, is beyond the ken of most of us. Such a course savors of the inquisition and the star chamber, and does not increase the respect of students for the rules and regulations laid down by the faculty. If students must be punished to appease the enmity of any one, or to aid in propping up any shaky department, a more heinous crime than this should be assigned as the cause of the punishment, if the dignity of the faculty is to be preserved in the eyes of the students.

COLLEGE NEWS.

Ho! for vacation!

Hoe in the garden.

The students were in demand as harvest hands.

Some of the seniors are reading up in agriculture.

Freshman class day, Aug. 5th at the Lansing House.

Everybody subscribe for the Annual. Take it for your friends.

Prof. MacEwan attended the National Teacher's Association at Chicago.

Who got the pears? Who makes the dog-paths across the lawn? The sophomore.

Our weather signals have indicated rain five times for every shower we have had.

No work for the senior class during the fall term. Chemical physics from 1 to 3 P. M.

Water piping is being laid from the main in the library to the forcing house in the garden.

July 19th was the warmest day at the college. The thermometer registered 98 deg. in the shade.

Two universities are seeking professors of entomology at this college. Still our fame goes abroad.

How will the present Juniors be listed in the next catalogue—as seniors or as post-graduates?

Several rattlesnakes have been killed on the farm lately. One was brought up in a load to the barn.

The mechanical department has three lathes nearly completed; two are for wood. A fourth lathe is under way.

Lieut. Lockwood's lecture on the military position of France was very interesting to the student of modern political history.

The addition of an upper story to the green-house has added two nice rooms but has not improved the appearance of the building.

If you have any private diaries or personal account books you had better send them home or take them to the club kitchen and burn them.

Stewards for fall term: Club A—F. B. Ambler. Club B—H. E. Harrison. Club C—T. McGrath. Club D—F. Seibert. Club E—A. B. Cordley.

The new apiary will be located back of Prof. Carpenter's house. It will be a model of its kind and will contain every thing an educated bee could desire.

The new plan of picking the small fruits by the quart has worked well. Some students made double the regulation price while others made only four cents per hour.

Some of the class in agriculture did so well in taking notes that they were requested to hand in their note books for inspection by the faculty and state board.

The seniors have of late taken great interest in fixing up the grounds around the dormitories. They have been working under the supervision of Pres. Willits.

Dr. Grange's lecture on contagious diseases of animals was of much interest, showing the danger of handling certain diseases in farm stock and the danger to food supplies.

The large tank and piping connected with it are to be thoroughly cleaned. The water from the artesian well will be pumped into the tank and the halls will be supplied with drinking water on every floor.

The plan of making the course in chemical physics largely experimental, meets the desires of those who will select it. This is a step in the right direction as it makes a direct application of the book lesson.

Dr. Beal and Prof. Cook will attend the Association for Advancement of Science, held in New York City; also the Agricultural Association which meets the same week. They will read papers before both bodies.

The work was finished on the artesian well the first of the term. The capacity was tried and for three hours it furnished two barrels per minute. The well has proved to be what was needed as the other wells have failed.

The college has been visited by a number of Professors of western colleges: among them President Morrison, of Drury college, Missouri. Prof. Popinoe, Prof. of Horticulture and Entomology, at Kansas Agricultural College; Mrs. Prof. Kedzie of the Kansas Agricultural College.

Commencement will begin with the Delta Tau Delta, Eclectic and Olympic banquets on Friday evening, Aug. 12th. Baccalaureate sermon Sunday Aug. 14th. Phi Delta Theta banquet on Monday night, Aug. 15th. Senior class day and banquet the 16th. Commencement day and President's reception on the 17th.

Subject of commencement orations: Mrs. H. T. French—Knowledge comes, but Wisdom lingers. W. C. Hall—Our Obligations to the Federal Convention of 1787. H. H. Winde—The Evil of too Great Freedom of Utterance. E. A. Burnett—Culture from Scientific Studies. W. C. Sanson—Use of History. C. B. Waldron—First Peaceable Then Pure. H. L. Chapin—Industrial Education a Necessity in the United States. E. W. Redman—Forestry.

We are pleased to notice the weekly scientific excursions of our bachelor alumni to the northwest (Lansing). Advance Agent Lake goes Saturday evening; President Cotton the next morning; Manager Woodworth the same evening brings up the rear. They return

in inverse order at midnight. Meetings reported as very interesting. Lake is said to have discovered a new and rare botanical specimen. President Cotton is a prime mover in a scheme to have bi-weekly meetings.

The seeming calm of the present term was only a seeming one. The usual number of faculty meetings has at last developed the usual result. A number of the boys have been suspended for longer or shorter terms. Some few years ago these troubles used to occur in the horticulture class; but when the right man took the chair, horticulture became a study that is liked by all who take it. All further trouble in this class ceased. Like results might be accomplished elsewhere.

The lecture in the chapel by Dr. Wallace, of England, was listened to by a large audience. The subject of the lecture was Evolution and it was one of the best that has been given at the college. The crowding of the room and intense heat rendered the audience restless. If we are to have public lectures from popular lecturers we must have more room. The increased number of students calls for more seating capacity and this can only be given by having a new chapel. Mr. Wallace delivered another lecture on Mimicry, Monday evening, Aug. 1st. This was illustrated with lantern views.

Literary officers of the societies are as follows: Union Literary Society—Orator, G. C. Crandall; Historian, W. C. Sanson; Poet, G. J. Hume; Prophet, W. A. Taylor; Toast-master, H. W. McArdle. Phi Delta Theta fraternity—Orator, Clark Hubbell; Historian, A. B. Cordley; Poet, I. B. Bates; Toast-master F. Stockwell; Prophet, B. K. Canfield. Olympic Society—Orator, P. G. Holden; Historian, G. L. Teller; Poet, I. B. Bates; Prophet, O. C. Wheeler; Toast-master, A. B. Cordley. Eclectic Society—Orator, F. B. Ambler; Historian, E. A. Burnett; Poet, R. W. McCulloch; Prophet, H. H. Winde; Statistician, D. A. Pelton; Toast-master, F. R. Smith.

The glorious Fourth was passed in various ways by the boys. The cadets went to Flint and astonished the citizens with the precision of their drill. They rendered effective police duty in keeping the crowd off the parade grounds while the sports and games were being held. Those who went to Pine Lake came back tired and reported nothing of interest at that resort. The second nine ball team went to Webberville and took the game. About twenty students remained at the college; some of these had a game of ball in which the score ran up to the old standard; 39 to 27. Some went home to help on their father's farm, and to see their *cousins*.

The union meeting of the literary societies was held in the chapel Saturday evening, July 23d. This is the first that has been held in this college for some time. The evening was an enjoyable one. Programme; Music by orchestra. Life of La Salle, F. B. Ambler. Debate, Was President Cleveland justified in vetoing the dependant pension bill; aff. E. A. Burnett, neg. G. C. Crandall. Music by orchestra. Love story, E. A. Holden. Oration, Harry Thurtell. Song, by college double quartette. Decision of judges in favor of the affirmative. College Oracle, Geo. M. Van Atta. Music by the orchestra. It is hoped that there will be more of these meetings in the future. They stimulate to better work and may finally lead to our admission into the North Western Oratorical Association.

The competitive drill between the cadet companies was held July 28th. The judges were Lieut. Dodge, of Ft. Wayne and Mr. Wm. Appleyard, of Lansing. Company A, commanded by Capt. I. B. Bates, came into the field first. Their drilling was almost faultless, the company becoming rattled only once. Time was called and then Company B, commanded by Capt. W. C. Sanson, took their position. The drilling of Co. B was to outside judges as good as that of Co. A but the decision was given to Co. A because of the excellence of their manual. The number of evolutions was not taken into account; the precision of the evolutions being the standard. The personal drill was entered for by 27 men commanded by Lieut. J. A. Lockwood. After the first five minutes the number of prospective champions was reduced to two and when time was called the decision was doubtful but was, after some deliberation, given to Corporal John O'Bannon, Corporal Churchill being second. The drill was witnessed by nearly 300 spectators.

The last meeting of the Natural History Society was a very interesting one. There were three articles presented: *Desmids*, by R. S. Baker, this was illustrated by drawings. Observations on plants

and trees by L. H. Dewey. The object of these observations was to determine the period of growth of our various plants and trees with a view to determine the prospect of acclimatizing certain kinds of forest trees. The most of our native trees complete the period of their growth before July. One of the earliest shrubs was the common Syringa or Lilac. Soft Maple began its growth the first of May and completed it the 29th of June. As a rule the trees grew the fastest about a week before completing growth. The longest growth was made by an Oriental Plane tree, which has grown 50 inches already and is still growing. Comparisons of poisons by A. E. Hart. All the insecticides were found to contain arsenic as their active principle, most of them are of less value than Paris green or London purple. Talks on the Chinese peach and Russian mulberries by Prof. L. H. Bailey. He showed specimens of both. Plant devices to secure fertilization, was presented by D. A. Pelton.

PERSONALS.

It is our aim to make the personal department of the SPECULUM a means by which old students and graduates of the M. A. C. may hear of those with whom they were acquainted while here. That it may fulfill its purpose we request Alumni and others, to notify us of any matters of interest which properly belong to its columns.

Charles E. St. John is here studying Botany, Landscape Gardening, Entomology and Chemistry.

Senator Monroe attended the celebration of the semi-centennial of the University at Ann Arbor in June.

Mr. W. D. Hill, who will be the next editor of the Normal News, spent some time on the grounds recently as guest of D. M. Myers of the class of '89.

Prof. Geo. H. Harrower will return soon from Halle, Germany, where he received the degree of Ph.D., and will engage in journalism in North America.

Erwin F. Smith, a special student five or six years ago, under Dr. Beal, is in Maryland investigating the peach pellow for the United States Department of Agriculture.

Prof. MacEwan met Ed. M. Shelton, of '71, W. C. Latta, of '71, John R. Shelton, of '82, and J. H. Smith, of '83, at the National Teachers' Association, held at Chicago a few weeks ago.

Shigehide Arakana, of Sapporo, Japan, who spent several weeks studying at this college a year or more ago, came here on a visit recently from Ann Arbor where he had graduated from the literary department of the University.

Dr. Louis McLouth, President of Dakota Agricultural College, at Brookings, Dakota, is authorized to come east and procure utensils for that college, and hopes to stop at the M. A. C. in August. He and the college of which he has charge are highly spoken of by the Sioux Falls Press. His inaugural address is an excellent production and worthy the careful consideration of all who are interested in educational matters. The Agricultural College seems to be the pet institution of the territory.

N. P. Clarke, an extensive farmer of St. Cloud, Minn., visited the College recently. He says the Agricultural College of Minn. being an annex of the University is a failure. For this reason he is leading a movement to establish the Agricultural College as a separate institution, and hearing from all sources that this is the best college of its kind in the United States, came here to get data upon which to base his efforts.

CLASS '62.

E. M. Preston, President of the Alumni, gave an oration on the 4th of July at Nevada City, Cal., which was praised very highly and printed in the daily papers.

CLASS '67.

A. Clifford Prutzman is foreman of the Prutzman Manufacturing Works at Three Rivers.

CLASS '68.

Prof. S. M. Tracy, for some years Professor of Botany at the University of Missouri, has recently resigned. He is now in connection with the government surveying expedition in California, doing botanical work.

CLASS '69.

Dr. C. E. Bessey, Dean of the Nebraska Agricultural College, sends a copy of his excellently illustrated lecture on grasses to Dr. Beal.

CLASS '70.

Chas. W. Garfield gave a course of lectures, recently, at Cornell University and has been urged to become Professor of Horticulture in that institution: but says, "My Michigan has too many attractions." He rejoices in the fact of the extension of the D. L. & N. R. R. from Lansing to Grand Rapids but does not rejoice at its cutting diagonally across his farm.

CLASS '71.

Frank A. Sessions is cashier of the First National Bank of Ionia.

Prof. E. M. Shelton of the Kansas Agricultural College has been made excellent offers to take the professorship of Agriculture at the Iowa Agricultural College. He visited his Alma Mater July 28.

Byron D. Halsted, D. S., Professor of Botany in Iowa Agricultural College, is spending part of his vacation with his sister, wife of President Fairchild of the Kansas Agricultural College.

CLASS '73.

F. L. Carpenter recently spent a day at his Alma Mater.

W. A. Rowe is farming near Mason. He rejoices in a young son.

CLASS '74.

J. K. Gailey is recommended by the Faculty to the Board for an M. S.

C. L. Bemis, principal of the Portland schools, visited the College recently.

H. P. Jenney is practicing law at Jedds. He is also county surveyor of St. Clair County.

CLASS '75.

Charles Goodwin is spending his summer in Kansas on account of ill health.

Few men who had anything to do with the Legislature last winter made more friends than G. A. Royce.

F. J. Annis, of Fort Collins, Colorado, is president of the board of trustees of Colorado Agricultural College.

L. D. Niles made the College a visit for a few days recently. He has graduated from the medical department of the University and thinks of locating at Grand Ledge. He thinks the profession pretty well supplied and that the success of a physician depends about as much on the ability to show one's self up well before the public as on the skill as a practitioner.

CLASS '76.

Wallace Bemis is a market gardener and master of the grange at Ionia.

CLASS '77.

E. H. Hunt is still farming at Saranac.

M. W. Grey is a flourishing physician at Pontiac and has been mayor of the city.

W. O. Fritz, accompanied by a bright Indiana lady, stopped at his Alma Mater while on his way home from commencement at Purdue University. He reports hard times at that college from a failure to secure necessary appropriations.

CLASS '78.

Barney Dickman, with '78, is in St. Louis, Mo.

Ralph D. Sessions is still clerk in the Ionia House of Correction.

W. S. Holdsworth is at present sketching in the vicinity of Hyde Park, Mass.

H. W. Nixon, with '78, is in the mercantile business at Crosswell, Sanilac county.

R. H. Gulley is very popular as a teacher at South Haven, and has been engaged for another year.

CLASS '79.

C. B. Charles is farming on a large farm near Bangor.

Harry Wilcox is a flourishing physician in Chicago.

George Hannahs, once with '79, is one of the leading lumber merchants of South Chicago.

N. P. Graham, with '79, so familiarly known among former students, is now at Lyons, Col., in poor health. His friends will be sorry to hear that his condition is considered hopeless.

CLASS '80.

Walter W. Remington, who has been for some time principal of the High School at Ft. Collins, Col., leaves there this summer.

Prof. F. A. Gulley, of Mississippi Agricultural College, has written an introductory work on agriculture, intended as a preparatory work for classes in agriculture at that college. Prof. Beal speaks of it very highly.

CLASS '81.

C. W. McCurdy is instructor in a Huron county Normal School this summer.

Alva Sherwood is foreman of the large farm of Warren & Co., near Dowagiac.

Will Prudden, with '81, is a speculator in Lansing. He is blessed with a second child.

Wm. Northrop, with '81, is on his father's farm near Lawrence, Van Buren county, but is in very poor health.

Jason Woodman is running a fine farm near Paw Paw, and is lecturer for the State Grange.

C. A. Dockstader was married last winter. He is a partner in one of the leading drug stores of Three Rivers.

Chas. McKinney, principal of the Vermontville High School and secretary of the board of examiners for Eaton county, was on the grounds recently.

W. H. Burgess was nominated for the legislature and would probably have been elected had he not withdrawn on account of an attack of typhoid fever. He is now surveyor at Crosswell, and is having grand success.

A. H. Voight is in the employ of the Los Angeles Furniture Co., Los Angeles, Cal. It is with pleasure we are enabled to introduce to his friends through the SPECULUM Miss Voight, born June 29, 1887.

CLASS '82.

Prof. L. H. Bailey—a daughter.

Lincoln Avery is practicing law at Port Huron.

J. W. Beaumont is practicing law in Detroit, Mich.

Edwin A. Murphy will teach in Pewamo schools next year.

John Shelton is a furniture dealer in Minneapolis, Kansas.

J. H. Irish is a member of the law firm of Brown & Irish, Detroit, Minn.

C. W. Crossman is a solicitor for a Chicago commission house at Benton Harbor.

Byron Robertson, with '82, is doing a good business as druggist at Breedsville, Van Buren county.

Warren H. Goss is one of the leading farmers of Van Buren county, and is an energetic Granger.

Eugene D. Mills has engaged to teach in Webberville next year. He expects to be at the college commencement week.

W. T. Langley has been teaching in Iowa. Prof. Johnson met him and his wife in Chicago recently. They were on their way to visit his home near Centreville, St. Jo. county.

CLASS '83.

Archie Emery rejoices over a daughter.

H. A. Danville, Jr., is at Grand Ledge.

Clark H. Eldridge is teaching at Milford.

Wm. A. Bahlke is practicing law at Alma.

John T. Mathews is attorney at law in Ithaca.

Oran Harris, with '83, is farming near Pontiac.

Horace Blodgett, with '83, is now a druggist in Mason.

L. A. Buell is at present a real estate agent in Minneapolis, Kan.

H. M. Weed is engaged in the mercantile business in Missaukee county, Mich.

H. A. Danville was married recently to a lady whose home is near Grand Ledge.

W. D. Teller, for a time with '83, is now farming near Colon. He is married and has one son.

E. P. Clark is in Coloma, Mich. He is staying with his sister, Mrs. Baker, and will probably teach the village school next year.

C. M. Weed is to deliver a paper before the Association for the Advancement of Science in New York about the first of August.

Prof. A. C. Redding is studying here with Dr. Kedzie. His work at present is analyzing waters. The subject of his thesis for an M.S. is the "Origin and Geology of Natural Gas." He will return to Findley this fall with an increased salary.

E. F. Law has closed his year's school at Brockway Centre, and is surveying in that vicinity during the summer. He is a member of the board of examiners of St. Clair county.

H. W. Collingwood has charge not only of "Uncle Mark's" department of the *Rural New Yorker*, as stated in the last issue of the SPECULUM, but assists in the editorial and publishing departments, and is very highly spoken of by his employer.

CLASS '84.

Fred Herrington is studying law at Pontiac.

Homer Luce recently joined fortunes with a young lady.

It is said that Michitaru Tsuda is private secretary of the prime minister of Japan.

Will Kirby, with '84, is in a bank at Schoolcraft, when at home, but is frequently seen around Lansing.

J. I. Breck is circuit court commissioner of VanBuren county. He was in Europe for a short time this spring.

C. E. Smith, who has been teaching in the Normal School, has been engaged to teach a summer school for teachers, in the eastern part of the State.

M. A. Jones, with '84, graduated from the Department of Pharmacy at the University this summer. He was on the grounds recently, and expects to go into the drug business at Mancelona.

Chas. McDiarmid is still farming at Bear Lake, Manistee county. He does not forget his Alma Mater, and takes a lively interest in her athletic sports. He is a member of the county board of school examiners.

Chas. Baker, Wm. Dothany and Willis Leiseuring also graduated from the Pharmacy Department with the last class. Thus we see that this limited field of labor is receiving considerable attention and likely to be soon filled.

CLASS '85.

O. O. Dunham has been teaching near Elsie.

L. M. Woodin, with '85, is running a store in Howell.

H. L. Harrison, with '85, is at PawPaw in his father's store.

W. S. Baird is shipping clerk for the Bement Iron works in Lansing.

F. R. Osborn, with '85, is having a pleasant visit in Honolulu, Sandwich Islands.

E. P. Antisdale is keeping "bach." on his farm near Nottawa, and is said to be a model farmer.

J. Y. Clark has returned from his western journey. His present address is Orion, where he is farming.

L. G. Palmer was married last winter. He is working on his father's farm near Napoleon, Jackson county.

W. I. Power has been teaching during the last year, but will enter the medical department of the University this fall.

Henry Brown, with '85, was recently married to Miss Jackson, of Allegan, in which city he owns a large flouring mill.

H. K. Lum, with '85, assistant professor in the University, is prospering. He has a wife and a recent raise in his salary.

P. G. Towar and J. E. Hammond, of '86, who have been traveling in Wisconsin for a Chicago firm, returned to these parts recently.

W. F. Landreth, with '85, has a responsible position as assistant of Dr. Law, who has charge of the pleuro pneumonia bureau at Washington, D. C.

H. P. Gladden, who has been teaching at St. Ignace during the past year, is now working on his father's fruit farm near here, and visits the college frequently.

T. L. Parker has finished a successful term as principal of the Elsie school, and is engaged to teach there another year. Rumor says he is about to change his state.

Charles Collingwood was at the college recently. He is now inspector of pile-driving on the Grand Rapids extension of the D., L. & N. R. R., but has engaged to teach in the Howard City schools next year as principal.

Carl S. English, with '85, is at present at Lowell, Kent county. The following is a clipping from the report of the public sheep shearing of the Boston, Ionia county, wool growers: "Mr. Carl English, a graduate of the Agricultural College, a chemist and an expert with the microscope, determined the fineness of the fiber of the fleeces shorn." He regrets that there is not more truth in the statement that he is a graduate.

CLASS '86.

C. H. Judson is surveying in Toledo, O.

Geo. E. Hancorne graduated from the science department of the Normal School this year.

W. R. Rummier is at present in Detroit, but expects to go to Oregon in September with R. W. McCulloch, of '87.

A. E. Brown has been having good success as a teacher at Andover, Dak., but is now studying medicine at Webster, Dak.

E. G. Eldridge will teach another year on Mackinaw Island. He is at present clerking in the John Jacob Astor House of that place.

H. N. Jenner is catalogued in the medical department of the University. Ella says Henry has sore eyes and cannot study at present.

W. T. Welch pitched for the Mackinaw Fort base ball nine in a recent game with the St. Ignace nine. He is now in the life insurance business.

Sherman T. Walton, with '86, is married and keeping house. He is doing a flourishing dry goods business in Three Rivers, but is still the same old "kid."

J. J. Jakway is working his father's farm at Benton Harbor. He is an active worker in the grange, and is the same good fellow that he was during his college days.

W. S. Launstein is shipping clerk for Filer, Stowell & Co., Milwaukee, manufacturers of saw-mill machinery. He has been with them ever since he left college.

Harry B. Howe is farming near Buchanan, Berrien county, but has not forgotten how to play ball, and gave the M. A. C. nine valuable aid in their games at Ann Arbor and Detroit.

C. F. Lawson is spending his vacation in the employ of a wholesale drug store in Detroit. He expects to take the junior literary studies in connection with his pharmacy during the next year at the University.

CLASS '87.

Fred Wilkinson, of Marine City was recently married.

Miss Louise Truman is now at Pasadena, Los Angeles Co. California.

John L. Dawson was here recently. He is in the employment of Crocker & Hudnot, architects, Big Rapids.

CLASS '88.

H. W. Carr is farming at his old home near Mosiertown, Penn.

Frank Charles is brakeman on a passenger train on the C. W. M. R. R.

Bert Travis is still in poor health at his home near Elm Hall, Gratiot county.

W. L. Roberts has bought the old homestead near Grand Rapids, and will farm it.

B. B. Smith has been working on his father's home near Howell but has now gone to Dakota.

H. W. B. Taylor now belongs to "Troop E" of the U. S. Cavalry and is stationed at Tucson, Arizona.

H. R. Case is assistant transit-man of a Sioux City Surveying Company. We are glad to learn that he has improved in health.

Herbert Thurtell graduated from the Traverse City High School this summer and is now canvassing for silver ware in the Upper Peninsula. He expects to enter the Medical Department of the University this fall.

CLASS '89.

A. L. Free is in Chicago studying elocution.

Frank Bullen is working in a drug store at Appleton, Kansas.

O. B. Knapp is working in the Sanitarium at Battle Creek, Mich.

J. M. Fairfield is attending the summer school at Hillsdale College.

L. C. Bartmess is superintendent of the motor power of the Oscoda Salt and Lumber Co. near Oscoda, Mich.

E. A. Wilhelm has been teaching in Toledo. He will enter the electrical engineering department of the Cornell University with class of '90, in September.

W. D. Groesbeck and John Leonard, with class of '85, are in a surveying party at Los Angeles, California. Groesbeck will return to the M. A. C. next February.

WHAT THE GRADUATES OF '87 WILL DO.

W. C. Hall will teach for a time.

C. S. Whitmore expects to farm.

O. C. Wheeler will farm at home.

W. W. Diehl will teach this winter.

J. J. Benjamin will teach for a time.

H. W. McArdle will teach this winter.

Wm. Sanson will study medicine in Chicago.

F. R. Smith will work on a farm at Somerset.

I. B. Bates thinks he will, possibly, study law.

H. L. Chapin will follow civil engineering in the west.

J. C. Duffey has not definitely decided on an occupation.

G. J. Hume expects to practice civil engineering in the west.

C. L. Himebaugh expects to teach school and farm for the present.

A. A. Abbott expects to work on a farm this fall and teach this winter.

E. A. Burnett expects to farm in Shiwassee county. Will teach this winter.

Guy Arnold thinks he may go into the redwood lumber business in California.

C. B. Waldron will engage in surveying in the west and in time edit a newspaper.

Mrs. Carrie M. French is wife of H. T. French, of '85, foreman of farm at this college.

G. C. Crandall will take a course in medicine at Ann Arbor, beginning in October.

E. W. Redman expects to engage, permanently, in bee keeping and stock raising at St. Louis, Gratiot county.

H. H. Winde expects to spend a year on the farm at home and then to enter the pharmacy department at Ann Arbor.

R. W. McCulloch and W. R. Rummler, of '86, will start for Oregon about Sept. 1st, where they will locate an apiary and study law.

COLLEGES.

A college for women is to be established at Princeton next year.

Illinois stands second in the Union in the number of her colleges.

Yale was pulled over two feet in the tug of war contest with Columbia.

Georgia chartered, built and conducted the first female college in the world.

The number of colleges in the United States increases at the rate of fifteen each year.

Ex-President Hayes has been invited to the presidency of the Ohio State University.

The average age of those who enter college is seventeen; a century ago it was fourteen.

At Harvard, work on college papers is allowed as substitution for regular literary exercises.

A student may easily pass through the German Universities, at an annual expense of \$500.

Fifty per cent of the past editors of the *Harvard Crimson* are now engaged in journalism.

The Kent Laboratory at Yale will cost \$80,000 and be the finest building of the kind in the country.

There are as many as sixteen colleges in the United States looking for qualified men for presidents.

The four daily college papers in the United States are published at Harvard, Cornell, Princeton and Yale.

Thirty-eight students of the Annapolis Naval Academy have been expelled, being unable to master their courses.

Students at Harvard have the choice of 189 courses of study, students at the University of Michigan, choice of 242.

The Glee clubs of Yale, Harvard, Princeton and other colleges will hold a competition at Boston in the near future.

The University of Paris, the oldest university in the world, was founded in 1200, six years before the founding of Oxford.

The Harvard faculty will not permit Harvard to remain in the foot ball association if the roughness of the game is not stopped.

Columbia possesses one of the two extant copies of the first folio edition of Shakespeare's work. The volume is valued at \$3,000.

The four mile race between the Yale and Harvard eights, July 1st, at New London Ct., resulted in Yale's winning the race 22:36 to 23:10½.

The student's board of Amherst has for the first time exercised its authority by expelling a man, who, contrary to promise, used a "pony" in class.

The 17 Japanese students in the University and High School at Ann Arbor have a society, all their own. They call it Bungakukai. One has been ejected on account of dissipation and gone to Columbia.

Chicago has raised \$300,000 for a Technological school. The State of Georgia has also decided to establish one at Atlanta at an expense of \$100,000.

Lee, of Yale, recently in practice, is said to have kicked nine feet five and one-half inches, thus beating the world's record by two and three-quarters inches.

The University of Michigan, this year, graduated 105 "Lits.;" 153 "Laws.;" 81 "Medics.;" 27 "Dents.;" and 13 "Homeops.;" making a total of 409 students.

The Greek government has presented the American School of Classical Studies with a beautiful site for a building at Athens, and a \$20,000 edifice will now be erected.

The New York State inter-collegiate base ball league have recently requested the Cornell nine to withdraw from the league, as their nine is too strong for the other colleges.

The entire class of Madison University, New York, has been indefinitely suspended. The trouble arose from the fact that the faculty tried to prevent the Freshman and Sophomore rush.

The four mile race between the Harvard and Columbia eights, June 27th, resulted in Harvard's winning the race by three lengths, in 20:20, the fastest time on record, Columbia crossed in 20:29.

It is rumored that the Cambridge, England, crew which was recently victorious over Oxford, has sent a challenge to Harvard, the race to be rowed in America, at some place to be agreed upon hereafter.

The spring field sports of Cornell University were held a short time ago, in the presence of a large number of spectators. A number of the records were broken and the gate receipts gave a handsome sum to the athletic association with which to send away the Cornell boating crew.

The following list of the leading colleges of the United States gives an idea of the importance attached to gymnasia in the estimation of the best educational institutions of the country: Harvard, cost of gymnasium, \$110,000; Yale, \$125,000; Princeton, \$38,000; Amherst, \$65,000; Columbia, \$156,000; Williams, \$50,000; Cornell, \$40,000; Lehigh, \$40,000; University of Minnesota, \$34,000; Dartmouth, \$25,000.

ATHLETICS.

Base ball and lawn tennis are the leading spirits here at the college at present. There being four organized base ball teams and four tennis clubs.

On the Fourth of July the second ball team from here met the Lansing nine at Webberville, and in a game of seven innings did them up to the tune of 16 to 5.

D. P. Yerkes, B. K. Canfield, and Wm. Needham helped represent the Grand River Boat Club at the nineteenth annual regatta of the N. W. A. R. A. held at Grand Rapids on July 19-20, and although heat and change of water placed them on the sick list for a time, their excellent rowing showed that there is good metal in them, and but for sickness they would have won in the Junior four, and but for the same reason Yerkes and Canfield would have won the prize in the Junior pair.

College athletics must have a boom! How this boom is to be brought about is a subject that is at present agitating the minds, thoughts and pens of nearly all the colleges in our State.

That athletics are beneficial in colleges is an established fact, because all of our principal colleges recognize athletic sports in their institutions, and you have but to look at the records of field days held during the past year to be convinced.

Colleges encourage athletics for the physical, mental, and we may say financial benefits derived from them.

Athletics are of physical benefit in filling out and developing the muscular growth of the student. Look for instance at the thin, shadowy being with "butter-milk complexion" who wanders aimlessly about our campus or sits in his room trying to study, and compare him with the hearty, robust, good natured fellow who takes lots of exercise, eats his allowance, gets his lessons, and sleeps soundly, while his constitutionally tired companion who has taken no exercise, spends a sleepless night. The one arises in the morning with renewed vigor to pursue his occupation, the other to simply exist for another day.

The student who takes plenty of exercise, in sports and otherwise, can do more and better mental work than he otherwise could do without such exercise. A strong mind cannot exist long in a weak body, therefore it is the duty of every student to spend some time each day in developing the body, that dwelling place of all ability. How shall we devise some systematic method of pursuing athletic sports so that they will become more beneficial, and awaken more enthusiasm and attention in our colleges?

One of our sister colleges, Hillsdale, has proposed that, for this purpose, we hold an annual inter-collegiate field day, and we are glad to learn that the scheme is receiving attention in other institutions. The advantages of an inter-collegiate field day are many, and embrace all the advantages of the old method, *i. e.*, one at each college, with many others added.

This scheme would decrease the number of field days, and thus also the expense. We would have but one field day each year, and but one contestant in each of the sports from each college represented, said contestant to be determined on by a previous contest in each college. In this way, for example, the contestants for the standing broad jump would be represented by the best jumpers from each college, and so in all the sports each college would have a man with best record in said college to represent them in the general field day.

The expense that goes with our field days, under the present system, would be reduced. This year the expenses of each college holding field days has been from \$100 to \$300, an amount that seems large for one college to raise. Now if each college would subscribe, say \$75, towards a general field day, the expense in each college would not be felt, and we would have a field day that could not be excelled.

It would also determine what college was victor in the different sports, and the person who won the prize for any sport, would be considered the champion in that particular sport for one year in all the colleges entering the scheme. The interest in field sports would be increased, as each college would strive to be champion in the contests.

The place for holding the first field day could be determined by a committee from each of the several colleges, and afterwards be held in succession at the different institutions.

The scheme will be received well here, and we think M. A. C. will appoint a committee, as suggested by Hillsdale, to confer with other colleges on the subject. Then let all our sister colleges take the matter in hand, work up an interest, appoint committees this fall, remember that "In union there is strength," and next

spring we will come to the front with the grandest field day that ever was witnessed in Michigan. This, with the oratorical contest spoken of in another place, to be held in connection, will arouse a general interest, and prove a bond of union between Michigan institutions.

EXCHANGES.

The *College Student* of Franklin and Marshall College, gives a very interesting account of the centennial celebration of that institution, one portion of which the great Benjamin Franklin helped to found.

The *College Rambler*, of Illinois College, is highly commendable as a neat, well filled volume, and shows the result of much care and precision in the preparation of its articles and choice of topics. The only criticism, and that in the kindest mood, is that the exchange department should make its criticisms in a manner less calculated to arouse unkind feelings and hence unkind replies.

The *Colby Echo* contains an article on "Dean Swift." It gives interesting information concerning his nativity, descent, college life, nature, peculiarities, manner, desire for wealth, religion, disposition, first productions, and a short comment on "Gulliver's Travels." It is a clear, concise and very interesting production.

The *Xavier*, from New York City, is one of our most attractive looking exchanges, and has been mentioned by numerous college journals as a model in its line. It contains some very good articles, but such subjects as "Can the finite grasp the infinite," by the majority of college students are rather too deep to handle. Another article in the same issue, "Persian Literature," is well written, and imparts much instruction.

The commencement number of the *Southern Collegian*, from Washington and Lee University, has just arrived. An address by Thomas Nelson Page, D.L., delivered before the Alumni Association on "The Old South," occupies the first pages.

It is as fine a condensed history of the south as may be found anywhere. Mr. Page's views concerning the war are not popular ones but the article is well worth the careful reading of every student interested in our government. He says: "Two and twenty years ago there fell a blow upon the south which was death. It was annihilation, under the pretty euphemism of reconstruction." He then describes her phenomenal rise, and how the world, through ignorance, said this is not the old south but a new civilization, "and marvelous to relate, the men of the south accepted this as an honor." Speaking of "The New South," which we see so often commented on, he says, "by imperative inference it institutes invidious comparison with and implies censure of something else—of some other order—of a different civilization. That order, that civilization, I propose to discuss briefly and repel this censure; show that comparison is absurd, and that the new south is really simply the old with its energies directed in new lines."

He then, in a very concise manner, gives a history of the old south, the influences which made her different from the north and wherein the south has been misrepresented. "Everything was looking towards the gradual but final extinction of African slavery. It was prevented by the attitude of the northern abolitionists." "I am not the defender of slavery; God forbid! I thank God that it has gone from the south." He claims that the south was outraged by violations of the constitution and dissolved its connection with the Union according to its sovereign right. He shows what part the south had in forming the character of the American people. "I assert it as history, that whenever liberty has in the last two hundred years taken a step she has moved on southern soil." He then gives his views regarding the violation of the constitution by the north. "Do not misunderstand me; no man rejoices more than I that slavery and secession never can again become practical questions in this land. No section of this country accepts this fact more absolutely, more loyally, more heartily than that, which a generation ago flung all its weight on the opposite scale. Had I and you been northerners and of proper age, we should undoubtedly have fought for the destruction of slavery and the preservation of the Union. But to pretend that we did not have the legal, constitutional right to perpetuate slavery and to secede from the Union, is to stultify ourselves in falsification of history. If any portion of this nation doubt this latter proposition let them learn the truth from the original records of the country, if they question the former, let them attempt to impair the Union and see how loyally the armies of the south will spring to its defense. But I assert that if the south is ever to be once more the leader of this nation, she must cherish the traditional glory of her former station and prove to the world that her revolution was not a rebellion but was fought for a principle, upon which she was established as her foundation stone, the sacred right of self government."

Speaking of the ability of the southerner, he says that it was the lack of southern literature that determined her defeat. He dwells long on the fact that the history of the south is yet to be written, and believes in the sincerity of his ancestors. "Can any good come forth of a generation that believe that their fathers were traitors? Can historian find better material, or poet deeper inspiration?" Speaking of Lee he closes with, "Standing here beside the sacred ashes of the noblest exponent of that civilization, delivering my message from this University, his grandest monument, I hail the future historian of the old south."

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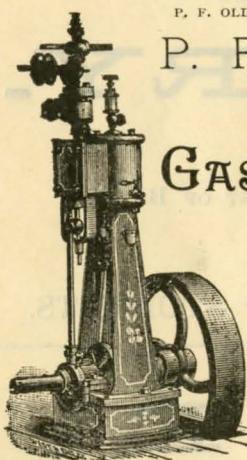
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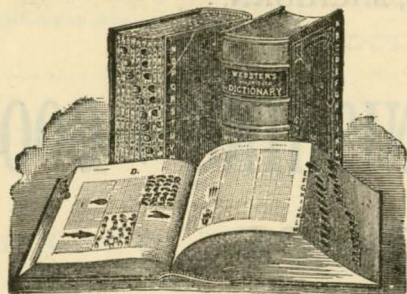
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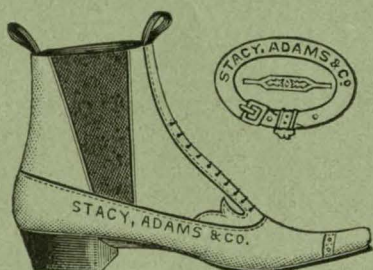
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