

# The M. A. C. Record.

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## Institutes.

### ALLEGAN.

A very successful institute was held at Allegan, January 11 and 12. The first State Institute was held in Allegan twenty-one years ago, and on Tuesday evening an anniversary meeting was held to commemorate the occasion. Dr. Kedzie and numerous others took part in the exercises. Mr. A. A. Crozier conducted the institute. Other members of the "crew" present were Dr. Kedzie and Messrs. K. L. Butterfield, M. W. Fulton and J. H. Brown. Mrs. Mattie A. Kennedy conducted a very successful women's section. A. J. Bracelin, Watson, was elected president and E. J. French, Otsego, secretary of the Institute Association. The next institute will be held at Otsego.

### ARMADA.

On the same days that the institute was held at Allegan, twenty-one years ago, another was held at Armada. This winter while Allegan on one side of the state was celebrating the twenty-first anniversary of farmers' institutes, Armada, on the other side, was holding an enthusiastic institute and celebrating the same event. Twenty-one years ago Geo. W. Phillips was president of the Board of Agriculture, and last week his son, B. F. Phillips, gave the address of welcome at Armada.

### HOLLAND.

One of the most interesting meetings of the series was held at Holland. It was the first meeting of the kind ever held at that place. A large crowd was in attendance and the greatest interest was manifested, especially in fruit topics and the dairy business. An urgent invitation was extended to the Board of Agriculture to hold the institute next year at the same place. Appeals to their generosity, and suggestions that the Board preferred to change the place so as to accommodate other parts of the county, were in vain. They were willing to submit if necessary, but as this was their first Institute, and as they had no local agricultural society of any kind, they wanted another opportunity to show that the work was appreciated and to bring out a still larger attendance. The attendance at the woman's section was small, but those present were highly pleased and gave Mrs. Kennedy many demonstrations of their affection on her departure.

### PLYMOUTH.

R. M. Kellogg conducted the institute at Plymouth, and large, enthusiastic audiences attended every session. The woman's section, conducted by Mrs. Mayo, was held in the Presbyterian church, and the crowd was so large that a number could not gain admission.

### HOWELL.

The Saturday *Free Press* devotes a column to a report of the first session of a very lively and instructive institute at Howell, which was conducted by Prof. W. B. Barrows. Much of the time in this session was given up to a discussion on silos. "W. G. Smith '93" said he knew that he could keep his seventeen head of cattle cheaper on ensilage than on any other feed. His experience showed that he was realizing more fertility to his soil and that

he had easier times now than he ever had before, and was getting along better financially. He would not, speaking from a selfish standpoint, advise every farmer to build a silo, as it would hurt him by bringing down the price of milk."

### FREMONT.

The annual institute for Newaygo county was held at Fremont Friday and Saturday with A. A. Crozier conductor. The Congregational church, where the institute was held, was literally packed with farmers, who were very active in the discussions. "J. H. Brown gave an address on the breeding, feeding and the perfect environment of dairy cattle for best results in the production of milk and butter. A good feature in the discussion of this topic was the blackboard illustrations, which should be more generally used. Prof. Crozier's address on green manuring was full of good points, well emphasized, and provoked many pertinent questions. M. W. Fulton's talk and exhibit of farm fences completely filled the bill along this line."

### MILFORD.

The institute for Oakland county was held at Milford Wednesday and Thursday. The attendance was very large and a fine program was carried out. The state speakers were Sec. I. H. Butterfield, A. M. Welch, J. L. Shawver and Mrs. Mary A. Mayo.

### MUSKEGON.

At Muskegon the attendance was large and "standing room only" was to be had at some of the sessions. At no place I have visited has the interest in the subject of fertilizers been so great as here. During the past five years, since the lumbering interests have declined, fruit growing and market gardening have received much attention. Muskegon is a beautiful city of some 33,000 people and contains many fine residences and public buildings. For several of the latter she is indebted to her public-spirited citizen, Mr. Hackley, who built and gave to the city a magnificent public library, an industrial school and a public park containing probably the finest soldiers' monument in the state. While in the city we had a pleasant call on Arthur Jones, '81, one of Muskegon's leading lawyers.

A. A. C.

### Special Course in Fruit Culture.

Upon entering the horticultural lecture room one day last week I found sixteen young men, special course students, much interested in Prof. Taft's lecture on the black peach aphid. The professor said that the aphid was discovered four or five years ago in the peach orchards of Maryland and Delaware, and the effect was such that the growers thought at first that their trees had the yellows.

The aphid works on both leaf and root in summer, sucking the juices of the tree. The effect on the growth is to shorten it and to cause the leaves to take on a filmy bluish or leaden cast. Spots appear on the leaves; these turn black, dry up and drop out, leaving holes. On young trees the effect is worse, and may kill the trees before the end of the first season.

The aphid has been found in several places in this state, where it has been brought in on nursery stock.

On the branches the insect may be killed by applying kerosene emulsion or whale-oil soap. On the roots wood ashes have given the best results. Scrape away the soil over the tender roots, where the aphid works, and apply from a peck to a bushel of wood ashes. Salt has been tried, but is not so good. Kanit is also used. A decoction of tobacco stems is good. Carbon bisulphide poured in crow-bar holes made around the tree is very effectual, but if much is used may cause the leaves to drop off the tree.

He warned the students against buying trees from any locality where the aphid exists, and said it would be a good plan to soak the roots of all trees in tobacco water before setting them out.

Professor Taft then took up the subject of pears; spoke briefly of their nativity, the difference between dwarfs and standards and the good qualities of each; named some of the best varieties, gave directions for preparing ground for a pear orchard, etc.

In this entertaining and instructive way he takes up the various fruits, their fungous diseases and insect pests, so that the course of lectures can not fail to be of inestimable value to the young man who intends to make fruit growing his vocation.

Curious to know what would come next, I followed the class into another room in the laboratory, where I found Mr. Gladden waiting for them. Here the students enjoy a daily fruit institute, with Mr. Gladden as conductor and lecturer. On this particular day the discussion was upon fertilizers for the orchard, and many good points were brought out, not only by Mr. Gladden, but by members of the class.

In the afternoon these students have botany under Dr. Beal and agricultural chemistry under Dr. Kedzie, besides library and other work.

These young men impressed me as being here for a purpose, and that purpose is a desire to make the most of their opportunity.

D. J. C.

### My Summer Holidays.

DELIVERED BEFORE THE OLYMPIC SOCIETY BY A. M. PATRIARCHE, '98.

When that delightful season, summer, makes its appearance, most of us, no doubt, look forward to the time when we can lay our text-books on the shelf, pack our valises, and go out into the world to enjoy a few weeks of holidays. It is at this time that I look eagerly forward to my usual outing on the waters of Georgian Bay.

Imagine it is summer and come with me this evening. We leave on the Grand Trunk at 10 p. m., travel all night, and arrive at Georgetown, a pretty village in Canada, about 8 in the morning. Here we change cars and travel on till we arrive at Penetang at 12:30 p. m. The train takes us to the steamer at this place, and soon we are gliding over the blue waters of Georgian Bay.

The steamer passes out of the Penetang harbor and makes a wide sweep around a high peninsula into the harbor of Midland. We stop here a few moments to take on freight and then, all being ready, the lines are thrown off and once more we start on our journey.

The steamer keeps on a straight westerly course. On our right and left are high hills thickly covered with trees, and almost ahead is a small island upon which a clump of trees almost obscures from our sight a small white cottage, which is the summer residence of a New Yorker. Passing this island we soon enter the main waters of Georgian Bay. Far away on our left is an immense island covered with a dense forest, called, from its shape, the Giant's Tomb. On our right the water is dotted here and there with shoals and islands, which make it look almost impassable.

All is clear ahead, but the steamer turns her prow and soon we are winding our way among the islands, swinging around a shoal here, and now passing down a beautiful channel between two islands so close to each other that a stone could be tossed upon them. Emerging from this channel, we pass into a clear expanse of water, and, passing over this, are soon winding among the islands again. And so we journey till 4 o'clock, when the steamer rounds into a cozy little harbor called Indian Harbor.

Look at the scene before you as we slowly float to the wharf. Who would expect such a sight in this far-off region where civilization is so scarce? Look at the ladies in their gay holiday attire; how healthy and cheerful they look. No cottages can be seen—only the gray, rocky islands, covered in most parts with a rank growth of bushes, stunted cedars and weather-beaten pines.

This is our destination. This is where I spend my summer holidays, Indian Harbor, 25 miles from the nearest town, with its grand and wild scenery, its utter solitude, where one throws aside his city clothes, dons his short duck pants and jersey, takes up the paddle or oars to wander among the islands in a canoe or boat in search of game or for discovery.

The steamer stops but a few moments, and we start her off by giving three rousing cheers, which are answered by the whistle. Led by a merry group of girls and boys, we stroll along a path across the island. As we emerge from a thick growth of trees, we find ourselves at the foot of a slight incline of bare rock, at the top of which is a cottage belonging to a Mr. Mason. We pass along this slope and soon come to a bridge, which crosses a pretty little channel that separates the two islands. On the other side of the bridge we suddenly come upon the other cottage, which is to be our abode. These cottages, which are frame, weather-beaten affairs, overlook a channel which runs between the islands and the mainland. They are both on the top of a bare, rocky slope, and at the foot of each is a small wharf, to which the rowboats are tied.

We soon become acquainted with the people and join in the pastimes of the region. In the evenings we sometimes sit around a huge bonfire or go out on the water to sing and chat. During the day we sometimes go on a picnic or go fishing. If the weather is bad we recline in a hammock on the porch and read, or play games in the house. Swimming is also one of the pleasing avocations.

Thus I spend my holidays. Space does not permit me to describe the in-



teresting trips that are taken in the canoe among the islands, or the picnic parties that we have. They are to me the most enjoyable pastimes.

How fresh and healthy one feels after such holidays. What a brown complexion one wears instead of the pale color he has in the city. How reluctantly we take the text-book from the shelf once more; and, as we study, how often are our thoughts interrupted by visions of the summer holidays in Georgian Bay.

#### At the College.

R. L. Stocoum has a sister in the women's course.

J. E. Mayes, '99m, was in Owosso Saturday on business.

January 28 this College will observe the day of prayer for colleges.

C. G. Wing, of Ludington, visited his son, G. Wing, '00, one day last week.

Mrs. B. J. Nichols, of Toledo, Ohio, is visiting her parents, Mr. and Mrs. Elderkin.

Mrs. I. H. Butterfield is spending a week with her sister, Mrs. C. E. Bennett, at Milford.

Floyd Ward and Chas. Rice, both of Milan, Mich., visited F. W. Robison, '98, last Tuesday.

Geo. Campbell, '98, has just returned from home, having been detained by a severe attack of rheumatism.

At the physical laboratory an armature recently procured in Jackson for the large dynamo is being repaired.

About twenty of the students participated in a skating party near the Industrial School last Friday evening.

The Eclectic Society was recently presented with a fine deer head, a gift from Roscoe Bradley, of Newberry, Mich.

B. O. Longyear reports that he has heard robins nearly every day during the past week. The first he noticed them was on Jan. 10.

A new side-table, with drawers and cupboards beneath, has just been placed in the milk-testing room in the agricultural laboratory.

Matt A. Crosby left for his home in Elbridge last Thursday afternoon. He is so well pleased with the College that he thinks he will enter next fall.

Miss Bertha Merkel, of Manistee, who has been visiting friends in Lansing, called on her brother, W. J. Merkel, '98m, Saturday and Monday.

Francis Browning Owens, a poet of some distinction, visited Dr. Kedzie last Thursday. He was at one time many years ago a pupil of the doctor's.

S. J. Redfern's father and brother, of Maple Rapids, who are employed in the capitol this winter, made him a short visit last Thursday.

E. A. Calkins, '98, who has been suffering for the past two weeks from a severe attack of inflammatory rheumatism, is slowly improving.

The King's Daughters will meet with Mrs. W. J. Beal Thursday. Lesson, the 14th chapter of St. John. Theme, "Peace." Leader, Mrs. M. L. Dean.

At the State Millers' Association banquet last Tuesday evening, Dr. Edwards responded to the sentiment "Wheels," and C. B. Collingwood, '85, to "Ladies and Gentlemen."

H. E. Van Norman, '97, spent Sunday with friends in Jackson. He is engaged in Farmers' Institute work this week and is conductor of the two days' session at Stockbridge.

The Agricultural College committee in the senate is composed of Senators Campbell, Lawrence and Hughes; in the house, Reps. Graham, Fuller, Campbell, Oberdorffer and C. G. Babcock.

W. N. Ferris, of Big Rapids, will lecture at the First Baptist church in Lansing next Thursday evening on "Making the World Better." Mr. Kenney has tickets on sale at the Secretary's office.

The Coöperative Book-Buying Association, which started this term, promises to be a grand success. They are doing a good business and everything looks favorable at present for a prosperous future.

Our Manistee boys received a call from Robt. Glute, '96, while home during vacation. He is teaching school in Marilla, Manistee county. He relates exciting tales of deer hunts in the pine choppings.

A new viscometer, made by the American Brass and Novelty Works, of Grand Haven, has just been added to the equipment of the chemical laboratory. It is for the purpose of testing the strength of flour.

The collection of saprophytic fungi being made by the botanical department is steadily increasing. Dr. Beal while out on institute work secured some interesting specimens in the northern part of the state.

One of the students presents the following query: "Would it not be wise for the State Board to petition the weather bureau for a new fair-weather flag? Ours has been up since the night of the military hop, December 11, 1896, and is getting a little ragged."

One of the boys is authority for the statement that E. S. Good "will enter athletics next summer. He is in training now, for nearly every Sunday night he walks home from Lansing. Occasionally, however, he makes a 100-yard dash down Michigan avenue and catches the car."

Rev. and Mrs. Legal, Mr. and Mrs. J. W. Bailey, and Mr. and Mrs. H. E. Thomas, of Lansing, were the guests of Prof. and Mrs. Taft last Friday afternoon and evening. The afternoon was spent in visiting the various departments at the College, and in the evening a social time was enjoyed.

The second informal military hop of this school year will be given by the cadets in the armory on Friday evening, Jan. 29. The one given last term was well attended and considered a grand success. The same officers are in charge and the prices are also the same. Music for the evening will be furnished by Bristol's orchestra, of Lansing.

It is said that on Thursday Mr. Gladden took the special class in fruit culture over to Abbot Hall to see the cots in the cooking class make pancakes, waffles, dumplings, and other dainties. While they were in the kitchen one of the girls, not in the class, thoughtlessly locked the kitchen door, making them all prisoners. The "long course" students are getting jealous.

During last vacation the Lansing laundries entered into a combine and raised the prices on M. A. C. laundry far in excess of what it had been in previous terms. Two enterprising students at once secured the agency for the Owosso Steam Laundry, which offered much lower rates, and it is perhaps needless to say that about four-fifths of the students' laundry went to Owosso last week.

The mechanical department is placing a new Hendey-Norton lathe, which

arrived last Friday. The lathe is from the Hendey Machine Co., of Torrington, Ct., and has a number of conveniences not found on the other lathes in the shops. An adjustable gear makes it possible to cut any thread, within reasonable limits, or to change the feed without taking off or putting on attachments. It has an automatic stop and the German design tail stock, fast and slow speed adjustment on the counter-shaft, and the carriage can be run back without changing the direction of the spindle.

#### "Let there be Light."—The Story of Printing.

By W. S. LEONARD.  
(Concluded.)

##### RAPID ADVANCEMENT OF THE ART.

So important an invention, meeting so universal a need, could not be kept secret. Nor did the inventors design that it should, except for a limited time. In a few years Hamburg, Cologne, Strasburg, Augsburg, and every important city in Europe had its printing press and issued books. William Caxton introduced the art in England, and established a publishing house at Westminster Abbey in 1480. Here he translated and published many volumes, the last of which was quaintly entitled, "The Art and Craft to Know Well How to Die." Euclid's Geometry was issued from the press of Randolf, at Venice, in 1482, and this was followed by the works of Virgil. Many other educational works were published in different places, and thus the printing press became the great ally of the university.

From the time of Gutenberg to the beginning of the present century the improvements in printing had been comparatively unimportant. The ink, type, and chase for holding the type together, have been but little changed, even to the present day. But type-making and type-setting machinery, stereotype, electrotypes and other processes, developed during the present century, have added greatly to the printer's art. The perfecting of type-setting machines alone has required many years of experiment. We have not space to refer at length to any of these processes or machines, but to some of the older professors it may be of interest to know that Mr. L. G. Barbor, a former student of the M. A. C., has been for the past three years associated with Mr. Paul Cox in developing the Cox type-setting machine. This enterprise is backed financially by Barnhardt Brothers and Spindler, of Chicago, where the machines are being constructed.

##### IMPROVEMENTS IN THE PRINTING PRESS.

Referring to printing machines proper, the press constructed by Gutenberg was a very simple device. Two upright beams were held together at top and bottom by cross-beams. A large screw, fitting a threaded hole in the top beam, carried a flat board or platen at its lower end. Below this, and supported between the upright beams, was the type platen. The form of type was placed upon this platen and inked by "sheep-skin dabbers or stamping balls." The paper was then placed over the type and the upper platen forced down upon it by means of a lever and the screw. A strong man could print on one side about 50 sheets per hour.

##### THE FIRST ROTARY PERFECTING PRESS NOT A SUCCESS.

No very radical departure from Gutenberg's press was attempted until near the close of the 18th century. Indeed, it was deemed impracticable to

do good printing otherwise than between two flat plates. In 1790 William Nicholson, of England, patented a rotary perfecting press. In his machine there were two type cylinders around which the type forms were secured, and two impression cylinders. The paper was fed by hand over the first cylinder and between the first pair, where it was printed on one side. It was then automatically conveyed to the next pair of cylinders, where it was printed on the second side. Centrifugal force caused the type to fly from the cylinders, and, being unable to overcome this difficulty, he failed to make a successful machine.

In 1806, Friederich Koenig, of Saxony, devised a machine in which a flat bed with form of type was caused to move back and forth under a revolving cylinder, the impression being effected by rolling contact of the type forms with the cylinder. In 1814, Koenig built for the *London Times* two presses of the double-cylinder design, each having a capacity of 800 sheets per hour printed on one side. He also exhibited a double-cylinder press for printing on both sides of the paper at one operation. All of his presses were of the flat-bed-cylinder class. A great many machines embodying the flat-bed-cylinder principle, but differing in detail, have since been constructed; and to such a degree of perfection have these machines been brought that, today, the finest book work is printed on machines of this class.

Among the flat-bed-cylinder presses built in America, the Hoe, the Campbell, the Potter, the Cottrell, the Miehle and the Duplex are worthy of mention. But I am more familiar with the history of the Duplex press than that of the others. The inventor of this machine, Mr. J. L. Cox, commenced his experiments when a mere youth. His mother's rolling-pin served as his first impression cylinder, and a table answered for the type bed. The use of such devices would naturally suggest the employment of stationary beds and reciprocating cylinders as a basis for his subsequent experiments, and Mr. Cox assures us that such was his intention. But for reasons not necessary to state, his first practical machine was constructed with one reciprocating bed and one impression cylinder revolving in fixed bearings. Later he built newspaper presses having two impression cylinders and two reciprocating beds. These machines were so constructed as to feed automatically from a roll of paper and printed both sides of the sheet, but required a separate folding machine. The first one of these presses was purchased by the proprietors of the *Grand Rapids Democrat*, and printed that paper for several years. Mr. Cox, backed financially by the Duplex Printing Press Company, conducted numerous experiments, and built single cylinder, double cylinder, stop cylinder and stereotype presses.

##### THE COX FLAT-BED WEB-PERFECTING MACHINE.

Following out his original ideas, Mr. Cox in 1889, in Providence, R. I., constructed a machine having stationary beds and reciprocating cylinders. This design proved a great success, and the first machine was set up in the office of the *Rutland Herald*, Rutland, Vt. Previous to this the Duplex presses had been built by contract. Encouraged by the success of the new machine, they established a plant in Battle Creek, Mich., for the manufacture of these presses. So great was the demand that the factory for some months worked night and day, and in



1892 forty of these machines were sold. The Duplex company still continues to build presses of this design, though much improved; and at the World's Fair they received the highest award for flat-bed web-perfecting machines. Speaking generally, flat-bed presses print from cut sheets and require a feeder. They also lose a large percentage of the bed travel, very much in the same manner that the table of a metal planer does. The great capacity of the Duplex press is due to the fact that it not only feeds automatically from a roll of paper, but prints on both sides of the sheet during both the forward and return movement of the cylinders. In short, the press prints, cuts to length and width, pastes, folds and counts, four, six, or eight-page papers at a rate of from 4,000 to 5,000 per hour. Outside of the United States the Duplex company have sold presses in Canada, England and Johannesburg, South Africa. Under the supervision of Mr. Henry Beckman the company are now making experiments from which they expect important results.

#### THE FLAT-BED CYLINDER PRESS.

For fine book work, and for newspapers having a small circulation, the flat-bed-cylinder press is used almost exclusively; but these machines are entirely inadequate to the requirements of the large metropolitan dailies. The great circulation of these journals necessitates presses built on the rotary principle. The experiments of Nicholson in 1790 were in the right direction; but as stated, he was unable to overcome the tendency of the type to fly from the revolving cylinders. The failure, in 1837, of Napier's ten-cylinder press was due to the same cause. In 1846 this difficulty was overcome by the *Public Ledger* in Philadelphia. In R. Hoe & Co., who commenced building these presses in sizes varying from four to ten cylinders. These latter were grouped around one central type cylinder. The first machine constructed was purchased by the publishers of 1848 one was set up in the office of *La Patrie*, a Paris journal. Lloyd's *Weekly London Newspaper* was printed in 1856 on a six-cylinder machine, and in the same year two ten-cylinder presses were set up in the office of the *London Times*. These presses, being hand fed, were limited by the capacity of the feeders, and the ten-cylinder machine required ten feeders to produce 20,000 sheets per hour, printed on one side. Thus every paper had to pass through the press twice, and then through a separate machine to be folded. Nevertheless they were great machines in their day, and were called the "Hoe Lightning." A correspondent of the *New York Tribune*, writing about 1870, gives a vivid description of the operation of these presses. The article is quoted in full in Emily Pearson's "From Cottage to Castle." The following portion is taken from that work:

"The press room of a great metropolitan journal now begins to present one of the most picturesque and bustling scenes imaginable. Deep under ground, and extending far beyond the line of the sidewalk—generally to the middle of the street—were the lofty vaults occupied by the complicated machines. Here were three of Hoe's lightning presses. The ten-cylinder machine towered aloft like a house. Eighteen feet in height, thirty-one feet in length, and nine feet in width, it required the space of two entire floors. It was approached by stairways and galleries, and platforms were built around it for the workmen. In the center revolves the huge cylinder.

"The press ready, about midnight the plates of the first side—the four pages which form the inside of the paper when folded—were lowered from the stereotype room. Instantly the press room started into life. The four and twenty feeders threw off coats, rolled up sleeves, ran and clambered to their places beside the tiers of shelves. Scores of gas jets began to blaze. The metal plates—four for each of the three presses—were quickly lifted into place and secured. The pressman stood holding the starting rope, and the distant engine, impatient for the past half hour, got in motion. The shafting under the vaulted ceiling began to turn. There was a cry of 'All ready!' and, as the rope was pulled, the three great machines, slowly at first, but with accelerating speed, set off on their great revolutions."

The stereotype plates to which the *Tribune* correspondent refers form another important step in printing. This process was introduced by Jacob Worms, of Paris, in 1849, and afterward was adopted by Hoe & Co. and other press builders. In this system curved plates are cast, each containing one or more pages of matter, and these plates take the place of the type. The plates are, however, originated from the type, the latter being "set up" first and the plates cast from molds impressed thereby.

#### THE FIRST SUCCESSFUL WEB PRESS.

In 1835 Sir Rowland Hill obtained letters patent for a machine to print both sides of a paper from a roll at one operation. Such a machine is technically called a web-perfecting press. It is one thing to conceive a theory and quite another thing to construct a practical machine; and to Wm. Bullock, of Philadelphia, belongs the credit of having constructed the first successful web press. In this class of machines, instead of using hand-fed, cut sheets, the paper is fed from a roll automatically. The first one of these machines was set up in 1861 in the office of *The Times* in Cincinnati, Ohio, and had a capacity of 11,000 perfected sheets per hour. The Walter and Victory, English presses, both nearly contemporaneous with the Bullock press, accomplished substantial results, as did also the 'Alauzet,' the 'Ingram,' the 'Augsburg,' and the 'Marinona.' Mr. Bullock's career was suddenly brought to an end by an accident, in which he was crushed to death in his own machine. His experiments had been watched with great interest, and his untimely death was deeply lamented by his friends and admirers. Fortunately for the printing-press world, Mr. Bullock's assistant thoroughly comprehended and appreciated his achievements. This gentleman took up the work where Mr. Bullock left off, and so successful was he that in 1877 the improved Bullock press printed 20,000 perfected papers per hour. Walter Scott also built presses involving the same general principles; and as early as 1881 had produced a machine that would feed, print, cut, fold and deliver 32,000 eight-page papers per hour.

The ten-cylinder press of R. Hoe & Co. met with much favor, and they sold 150 of these machines in the United States. In 1871 this firm began experimenting on a rotary perfecting press, and later on a rotary folder. In 1877 they brought out their double supplement press, embodying the rotary folder and other late improvements. This machine "turned out either four, six, eight, ten or twelve-page papers at 24,000 per hour, and six-

teen-page papers at 12,000 per hour, the odd pages being in every case accurately inserted and pasted in, and the papers cut at the top and delivered folded."

In 1887 R. Hoe & Co. set up in the office of the *New York World* their first quadruple press. This was in many respects similar to the double-supplement press, but had a greater capacity. It printed 48,000 eight-page and 24,000 of ten to sixteen-page papers per hour, all delivered in perfect form ready for the carrier or the mails. This was followed by a "sextuple" machine, the first of which was built for the *New York Herald* in 1889. The "sextuple" press has a capacity of from 24,000 twenty-four page to 72,000 eight-page papers per hour. It is surpassed only by the "octuple," which brings us down to 1896, and to the great climax in printing-press engineering. We will let the *New York World* describe this mammoth machine. The following is taken from the issue of that journal of May 10, 1896:

"Three great presses, each of which will have a capacity for printing and folding about one-third more newspapers than any other machine ever built, are being added to the mechanical equipment of the *World*. One of them is already set up in the great press room under the Pulitzer building, and the other two are in course of construction in the shops of R. Hoe & Co.

"The three new machines are what are known as the octuple presses. Each press, with a single revolution of its cylinders, will turn out eight newspapers of eight pages each, printed and folded as the *World* is printed and folded. As the cylinders of these machines when run at full speed will make 200 revolutions a minute, each

of them will, therefore, be capable of turning out 1,600 eight-page papers a minute, or 96,000 an hour, all folded and ready for delivery.

"When the three new machines are running at full speed they will be printing and folding 288,000 eight-page papers per hour. \* \* \*

"With the three octuple presses added, the *World* will have 12 presses in operation, with a capacity for printing and folding 744,000 eight-page papers per hour. \* \* \* The papers will be fed to each machine from four rolls, each 73 inches wide. The press will draw the papers from the roll at the rate of 32½ miles an hour. Were the rolls only the width of one page of the *World*, the paper would be run off at the rate of 130 miles an hour."

What a mammoth superstructure has been reared on the foundation laid five centuries ago! What would Gutenberg think could he behold the marvelous transformation?

But the printing press of today is not confined to the serious and weighty works that issued from the press of Gutenberg. Every pulsation of this modern oracle registers events varying from the ridiculous to the sublime—"trifles light as air," and revelations as far reaching as the æons of eternity. The newspaper needs to be purified and dignified and lifted to a higher plane. We need more of those editors who, scorning the temptations of a large circulation, will publish only such matter as tends to chastity, and truth, and the uplifting of the people. Let us hope that the time is not far distant when it may no longer be said that the newspaper is a fountain pouring forth waters both bitter and sweet, but be likened unto the "river the streams whereof shall make glad the city of God."

## The Cost



of the salt you put in butter is a small matter; the effect poor salt has upon the quality of the butter is a big matter. The butter salt question will be settled for all time, for you, after you've once tried "The Salt that's all Salt!"

### DIAMOND CRYSTAL SALT.

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# The M. A. C. Record.

PUBLISHED WEEKLY BY THE  
MICHIGAN AGRICULTURAL COLLEGE

EDITED BY THE FACULTY,

ASSISTED BY THE STUDENTS.

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For various reasons THE M. A. C. RECORD is occasionally sent to those who have not subscribed for the paper. Such persons need have no hesitation about taking the paper from the postoffice, for no charge will be made for it. The only way, however, to secure the RECORD regularly is to subscribe.

## Our Religious Organizations.

The place that religious sentiment and observances occupy within a college is thoughtfully studied, both within and without college walls. Less of a character, perhaps, to display their works than are some other college activities, the benefits from religious institutions are none the less positive, though so quietly achieved.

At this place much favorable comment has been made upon the encouraging vitality of some of our religious organizations. Solely "for the good of the thing" a great deal of effort from time to time has been put forth to promote religious life in the M. A. C., and some of these endeavors should not go unmentioned.

Not counting the various chapel services, there were for religious work six associations during the past term. Among the most important of these were the Y. W. C. A. and Y. M. C. A., each doing creditably its share of the religious work of a college. The Y. M. C. A. is probably the center of all the religious activities of the students at the College, and has come to rank in equal importance and usefulness with the best of other student organizations. Outgrowths from this association were the students' Bible classes, numbering two, sometimes three, conducted by students, and held each Sabbath of the term.

Two Bible classes led by members of the faculty,—one meeting during the week, the other on Sunday, and an enthusiastic Sunday school for the College children, taught by two ladies of the faculty, complete the list.

We believe that work of this sort is of much use to the College, and should be encouraged and enlarged. In our opinion, more affiliation between these various associations would be beneficial. It would at least give the strength that union is said to form, and which can be so illly spared.

## Worked His Way Through College.

"He worked his way through college." That a successful business or professional man should be proud of having worked his way through college is a healthful sign for the democracy of our country. It also speaks a liberal patronage for those institutions of learning where no honest work, however menial, is considered degrading for a student earning his education. And there are many such institutions in the United States. The *Sunday Times-Herald* says:

"Classical education at Eyanston depends as much on the snow shovel as

the Greek book. The lawn mower is as potent a factor in a liberal education at Northwestern University as is Latin, and the knowledge of the saw-buck and the curry comb are as essential to a thorough collegiate training as a passing mark in geometry or in differential calculus.

"While a few receive money given with nothing in return, by far the greater number prefer to take employment and thus earn their way without becoming objects of charity. In the wealthy families the student has taken the place of the coachman and the gardener. He cares for the lawn, mows its grass, pulls its weeds, rakes away the withered leaves, trims the trees, and thus keeps Eyanston bright and green. He feeds and curries the horses, milks the cows, drives the carriage and the coupe, tends the furnace, keeps away the snow, washes windows, beats carpets, runs errands, and, without the slightest stigma of discredit, turns from his labors of the day to attend the brilliant party reception at night where are gathered together the sons and daughters of the rich—even the very children of those for whom a few hours before he may have mowed a lawn or tended a furnace. He waits on the table for his board, washes dishes for his lodging, clerks in the book store for his books, works in the university for his spending money, wrestles with all kind of work and conditions, and hies himself away to college to occupy the same bench with the sons and daughters of millionaires."

While we have not, at the M. A. C., all the advantages for working one's way that a large city affords, yet there is plenty of work for those who desire it, and the variety of "jobs" is almost as great as the above writer enumerates. Honest toil is never looked upon as degrading; and the earnest student who, upon entering college, immediately goes about finding some work to do to help defray expenses is encouraged in every way possible, not only by the faculty, but by his fellows. And this is not all; we expect such a student to make a mark in the world. Experience has shown us that many of our alumni who have gained greatest distinction were students who worked their way through college.

## Germany Heard From.

A LETTER FROM ALTON C. BURNHAM, '93,  
GÖTTINGEN, GERMANY, DECEMBER, 28, 1896.

To the Record:

Six years ago, as an M. A. C. freshman, I would have hailed with delight the opportunity to write a letter for the M. A. C. RECORD (had such a power for the good of M. A. C. and, as well, of our great State, Michigan, as the RECORD can and should be, then existed), and never doubted an instant my ability to interest its readers. Now my head shakes like that of a bride being led to the altar, or of a freshman delivering his first declamation somewhere on the fifth floor of Williams Hall. For six weeks I have delayed this letter in the hope of receiving an inspiration, which, of course, never came; and now—because it is vacation here—loneliness, I fancy, more than patriotism, impels me to assume to occupy your space and time. Yet I am not unpatriotic, and M. A. C. has no smaller place in my heart; and—much to the credit of M. A. C.—that warm spot grows larger and warmer as I travel from one university or college to another, not only in free America, but in foreign lands.

Yes, loneliness; for M. A. C. dur-

ing the winter vacations of former years was never more lacking of life than Göttingen seems to me now. Think of a city of 25,000 souls being lonesome, and that at Christmas time, just because 1,000 students, more or less, have left for a day or a month! But such a lonesome town is very easily found in Germany, as easily as poor coffee—and that one has every day. But that you form no mistaken ideas, I must add that such a town is only about one-fourth as large as Lansing, or even smaller, and reminds one very much of the poorer quarters of a large American city, except that the colors are all those of dingy brown walls or bright red roofs. I live in the very southernmost house and walk through town almost to the very northernmost house to lectures every morning; it is only 13 minutes' walk, and yet in that compass dwell 25,000 souls. The streets are narrow and dirty, due to the compact manner in which the people live, though I understand their sewerage system is good. All streets are paved with rough cobble-stone; the sidewalks are stone and very narrow, so that often, right in the middle of the city, when two people meet two, at least one of the four, and sometimes two, must get into the street. Every where the stores occupy the first floor and the people, or at least people, live up stairs. These statements that I am now making apply to German cities in general, in some respects Göttingen is better than the rule. Even in Berlin, in the very busiest portions, it would be hard to find a house that did not have its inhabitants either in the cellar or up under the roof.

Surrounding the older and business portion of Göttingen is the old wall, perhaps 30 feet high and 20 feet broad, now used for a promenade. The old moat has become a sort of park. These changes have taken place gradually during the past 200 years and are features of nearly every German city, large or small. Outside of this wall and "Parkchen" (it cannot really be called a park, being only a few rods wide and not extending nearly round the town), lies what may be called the residence portion. It is, however, very meagre. The surrounding country is very beautiful—a quiet rolling country with long and deep swells, studded everywhere with large patches of wood and smaller towns whose main feature is houses, barns, barnyards, mixed indiscriminately together, the whole seemingly covered by one vast red tile roof.

For educational advantages (purely theoretical) Göttingen is not to be beaten. She has three excellent Folk-schools, one "Realschule" of the highest order, a higher school for girls, an excellent gymnasium for boys intending to proceed further with their education, and one of the best universities in the world, besides a library of between 400,000 and 600,000 volumes. She has also a remarkably good theater building, where plays have taken place six nights a week since about the first of October, and where operas will be given every night for six weeks in the spring, and she has Gasthouses and beer gardens innumerable. The latter would not, from our standpoint, be considered educational, but from the German standpoint they are very important educational and social advantages. Of these schools, especially the lower schools, a great deal can be said. Later I shall visit them with a view to comparing them with our lower schools. If the Germans excel us in educational matters, it is in these lower schools. I do not think the advantages of their uni-

versities over ours are at all so great as some Americans, who have taken a Ph. D. in Germany, would like to have us think. But to these specific questions I will come later if the readers of the RECORD wish to hear of them.

But you are without doubt impatient to hear something about the students themselves at a German university. To this end, we will take a look at the German counterpart for the literary societies at M. A. C. There are here about 1,200 students, and their societies ("Vereine," "Cours," etc.) make a complex machine. There are perhaps 150 so-called "Cour-studenten." They are the students who fight the German student-duels, who are known by the ghastly scars across the cheeks, of which scars they are very proud. They mostly have money and are very careful not to injure their health by overstudy. These Cour-studenten are to be seen about the streets at all hours, day or night, with little round caps of various colors, colored bands over the shoulder and across the breast, canes, scars, and dogs tied to strings. Then there is another set of societies, which resemble the Cours, but do not fight duels. Then there are the so-called Wissenschaftliche Vereine, which are the counterparts of our literary societies, and then still other societies, with which I am as yet unacquainted.

These Wissenschaftliche Vereine are divided, however, according to course of study. There is a mathematical society, a medical society, a Greek society, two theological societies, etc. The student in one of these societies forms his friends in it, and is known little outside of it. The papers pertain to the particular line; nothing outside of that is ever discussed, and the student becomes from beginning on, even in his society, a specialist. The meeting takes place from 8 o'clock in the evening, Saturday night, until some time the next morning, and in a private room in some hotel in the town. It is about as follows: They all sit around a long table, the president at the upper end. Each man has a glass of beer before him, and most of them are smoking. The president calls to order, and the business part is conducted; no man speaks without permission. This lasts half an hour or more. The scientific part now comes; the men can now assume easier positions, and perhaps order a fresh glass of beer. A single paper is presented, which must be from 30 to 45 minutes long; this is then discussed. The president now gives way to another, who has charge of the social part, which lasts as long as anybody wishes to stay. They sing songs, drink beer, and smoke cigars or their long pipes, and things gradually grow more and more lively, and many are the jokes that occur during this "gemütliche Theil." These are, however, the steady, earnest, plodding students, who become the noted scientists of scientific Germany. I have found them polite, kind and earnest men.

Of the German manners and customs social relations, the general character of the country, weather, crops, the peculiarities of their university methods, etc., etc., I have said nothing. To these matters I may come later, if the start I have made be not too discouraging.

"When the penniless lordling to get rich,

With his own nationality fails,

He crosses the ocean with heart light and gay,

And robs the United States males."

—Ex.



### "Wheels."

[Toast given at the banquet of the State Millers' Association, January 12, 1897, by Dr. Howard Edwards.]

Wheels are usually round: rarely do you find them triangular, as on the street cars that used to run to the College. They have shared in the progress of the day both in form and utility. From the old poetic over-shot mill wheel to the modern turbine is a great step. Likewise in its moral disposition the wheel has improved. Today its general appearance is mild and pacific; but laid up in the museums of the old world are wheels that possess a grim significance. There are upon them still the dark stains of human blood, and as we survey them they still seem to vibrate with long-drawn, quivering shrieks of agony from mangled forms bound to their circumference. Let us rejoice that the evolution of the wheel has been morally as well as physically upward.

The wheel is found everywhere in our civilization. In your occupation we set it to work, and with human intelligence it removes the various envelopes of the grain, separates and disintegrates the various parts, and we get as the product a powder, white as the driven snow, smooth and even as velvet, and nutritious as the God-given manna. The wheel revolves, and the skins with which the savage covers his nakedness are transformed into the clothing of civilized men. We put them under our cars and in our boats and go whizzing over land and sea with the swiftness of the wind. They make possible our books, our newspapers, our houses, our furniture, our wooden legs, glass eyes and false teeth. The toy wheel whirls for the delight of our infancy; mounted on the romantic tandem, the lover and the maid distance the flying hoofs of the old man's horse, are married and live together—after a fashion—ever after. The slow revolving wheel, with nodding plume and sonibre trappings bears us to our last resting place.

But there are other kinds of wheels and other kinds of work that they do. In people's heads they buzz and whirl and roar, and fill the world with noise and confusion. No class in society, no occupation, no rank, is free from the man with wheels in his head; but he has an especially congested representation in the lunatic asylums and in the United States senate. Against the lunatic asylum there is nothing to say. The poor inmates mutter and jabber and shriek, and nothing is hurt by their noise. But in the senate there is danger that the raving of howling dervishes like Cameron and Chandler and Mills, *et id omne genus*, may be taken as meaning something, and therefore bring to the country serious injury. In their mad frenzy these people seem ready and anxious to plunge the country into war with half Europe in order to do—heaven only knows what—concerning Cuba. There is no evidence whatever that the Cubans as a class are ready for self-government. Certainly there is not the faintest trace of an already organized government to recognize; and yet these senators are willing recklessly to encounter the gravest possible consequences—to enter into complications before which the strongest nations and the wisest men would stand appalled and which only the weightiest consideration of national honor and integrity could justify—to bring to a few hundred thousands the questionable blessing of a precarious and doubtful legal autonomy.

A man can have no more dangerous wheel in his head than the idea that

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the form of government determines the character of that government. Some forms are better than others, but after all it is the character of the people that in the long run determines the character of their government. No viler crimes against humanity have ever been perpetrated, no more oppressive tyranny ever existed, than under the forms of popular sovereignty. The recent accounts of despicable cruelty, of brazen, heaven-defying criminality, practiced under the forms of law in our own city of New York read like tales of travelers amid the festering rotteness of Bagdad or Canton. On the other hand, no nation was ever more respected abroad or more peaceful at home than England under the absolute rule of Cromwell. The cry for liberty is one that will always possess a peculiar thrill for Americans; but it is high time that we were learning that this cry is not always uttered in good faith, and still more frequently is not properly understood. We have good reason to doubt whether the transition in Brazil from an emperor, Dom Pedro II, to a president, Fonseca, was a movement toward real liberty of government. It is a remarkable year indeed when no revolution takes place in some one of the petty South American republics; and in every such revolution it is somebody's private ambition that is being gratified, not for a moment the general prosperity of the people that is being considered.

So, when we come to ask ourself, "What are we getting into all this commotion about Cuba for?" let us not be stampeded by the men with wheels in their heads. It is a beautiful thing to see a whole nation moved with righteous indignation in behalf of others, but how if our indignation is merely an aid to one form of tyranny against another? Who will be responsible to us for the character of the banditti we are helping to gain control of a whole people? Who knows the secret springs that are moving the so-called patriots? Have the Spaniards misgoverned? The patriots are totally inexperienced in government and offer us no credentials of character. Have the Spaniards been cruel in warfare? On exactly the same authority—newspaper reports—we know that the Cubans in the conduct of their campaigns have violated every usage of civilized warfare. If we are to intervene, let's not do it under false pretences. Let's not fit out a piratical expedition and sail it under the Red-Cross flag. If Cuba is necessary to our wellbeing, to our pockets or our vanity, let's proceed, in the most statesmanlike way possible, to take her. But let's not use as our war-cry, "Duty to humanity! Freedom and liberty! oppressed and downtrodden Cuba!"

This is not the only case in late years where the United States senate has

reveled in the frantic ravings of dementia, or in something of a still more sombre hue. It has become the stage where small men keen for personal gain, men of merely rudimentary moral development, men of disappointed ambition, with brains corroded with envy, masquerade in the pestilential rags and tatters of a senatorial privilege that was once the stately robes of courtesy and dignity worn by the giant fathers of the republic. Indeed some of our best and most earnest thinkers are coming to look upon the present constitution of the senate as the most threatening feature of our political life.

Unfortunately, however, all the buzzing heads are not in congress or the lunatic asylums. A large overflow was found on our street corners during the declining months of the just-dead year. And they knew even more than our senators. They knew the number of the stars and just how many ounces of gold and silver there are in each one. No old woman hid a dime in the toe of her stocking but, lo, they knew it and reckoned it all up together. They went back to savage ages, and with the eye of the seer revealed to us the ruinously low price of human tenderloin steak in Africa from the year B. C. 6742 to B. C. 3631—the very exact time during which the Fee-fo-fums, the reigning dynasty of the Cannibal Islands, entered into a vile conspiracy to limit the coinage of ivory tusks, thus contracting the currency and reducing the poor warrior man-hunter to the verge of absolute ruin.

In the pulpit we sometimes hear these wheels going, and there they buzz out death and destruction to all those who do not or cannot come into a certain little eight-by-ten ark called my-dox. They are those who consume so much time and energy in titling the mint and annise and cummin of doctrinal pharisaism that they have little left to inculcate justice, and mercy, and truth. They are those who are ready with opprobrious epithets for all whose God is not such a one as their petty imagination compasses. They are those who think it more a revelation of an infinite immanent God to know Him as suddenly halting the very course of this great ponderous planet that sweeps in beautiful harmony and wonderful speed around our sun, in order, forsooth, that somewhere, in some little fold, one tribe of semi-savage marauders might have daylight to kill a few more wretched fugitives of other semi-savage tribes; than to conceive him as knowing the end from the beginning, as planning all things with absolute inerrancy, as needing not to repent, to experiment to reverse processes once set on foot, or to mar the beauty and order of his universe. Happily the preachers, as a class, are singularly sane, broadminded, in-

telligent and charitable; and the man with the wheel is the exception in this part of the moral vineyard.

The question naturally arises at this point, does woman never have wheels in her head? Does she never have one fixed idea beyond which she never goes, and to which she clings with desperate tenacity? Not often, and yet there examples. Now I know your thoughts naturally revert to the so-called "new woman," but 'tis not of her that I wish to speak. I may remark incidentally, however, that I see no new type in the so-called "new woman." She has the same vitriolic tongue that in Puritan days used to be punished with the ducking-stool; she has the same plentiful lack of decorous modesty that St. Paul, in his days, reproved with the words, "I suffer not a woman to teach nor to usurp authority over the man." Those "pants," too, that she wears, are still her husband's—only they have been much enlarged to—well, meet the necessities of the situation. O, she's a howling success, this new old woman with the strident voice and the brazen face, and the roomy bloomers; only she isn't new. From shrewish Sarah, with her Turkish trousers and her poor, hen-pecked husband Abraham, on down through the ages to our own Mary Ellen and him whose modest worth is unknown to fame except as Mrs. Lease's husband, we have always had her with us. But it was not the new woman that I intended to cite as an example of the woman with wheels in her head. There is a much more serious and widespread case. It is that of the woman who, with streaming hair, flushed cheeks, startled eyes and reckless tread, rudely awakens her dreaming husband from welllearned slumber with the strutting announcement—that—the baby has cut its first tooth. From wheels like this, good Lord deliver us.

It would be a long story to tell all the varieties of wheels in all the heads. There is the victim of the advance-agent-of-prosperity idea—the republican politician who preached that the present commercial depression, brought about as it has been by the most profound and far-reaching social changes that the scientist has ever been called upon to study, was only the outcome of want of confidence; and that the election of McKinley would be the starter's word "go" in a frantic race of prosperity. As well might one talk of a freshet in the Mississippi being caused by the presence of a tree floating on its surface, and expect the removal of the tree to bring the water to its normal height. There is the walking delegate who feels an indefinite but intense and growing hatred toward the capitalist; who, not satisfied with the healthy, steady, and turn the whole existing fabric of society, hoping that in the resulting



chaotic confusion he may come out on top; who has his mouth filled with phrases about an all-merciful, all-wise, and all-powerful *social machine* which, unswayed by human greed, or vanity, or weakness, would infallibly manufacture happiness for everybody.

Amid all this confusion and noise of wheels upon wheels, wheels within wheels, I still catch the deep, persistent roar of the wheels of destiny as, restlessly and resistlessly, they bear forward the great car wherein the silly little wheels flutter and rattle. Whither are they bearing us? I start away from the petty things that have so far taken my attention and attempt to peer outside into the beyond. But all is night and darkness, and there is only the eternal roar, only the onward rush. Whither are we going? Who is guiding our flight through the "wide womb of uncreated night?" And I grow afraid and turn and ask the scientists, "Do you hear the roar of the wheels? Do you feel that resistless forward surge? What is the force? And whither is it driving us?" But they only look at me rather vacantly and go on talking of ether and whorls and protoplasm and evolution.

And the deep roar goes on. And I ask the theologians, "Do you hear the wheels of destiny? Do they mean life or death?" But the theologians, like Milton's fallen angels, are reasoning high

"Of providence, foreknowledge, will and fate,  
Fixed fate, free will, foreknowledge absolute,  
And find no end, in wandering mazes lost."

And the deep roar goes on. And then away off in the midst of the jars, and whirl, and jangle I hear a strong, clear poet's voice, which sings:

"The year's at the spring  
And day's at the morn;  
Morning's at seven;  
The hillside's dew pearled;  
The lark's on the wing;  
The snail's on the thorn;  
God's in his heaven—  
All's right with the world!"  
And the wheels roar on, but I am content.

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Y. W. C. A. regular weekly meetings for all ladies on the campus Tuesday evenings at 8 o'clock, in the ladies' parlors. Meetings on Sunday evenings with the Y. M. C. A.; Miss Edith F. McDermott, President; Miss Alice Georgia, Cor. Secretary.

M. A. C. Grange—Meets every three weeks on Tuesday evening in the Columbian Society rooms. Prof. C. D. Smith, Master. H. W. Hart, Secretary.

Natural History Society—Regular meeting second Friday evening of each month in the chapel at 7:00. H. C. Skeels, President. W. R. Kedzie, Secretary.

Botanical Club—Meets first and third Friday of each month in the Botanical Laboratory at 6:30. T. Gunson, President. W. R. Kedzie, Secretary.

Shakespeare Club—Meets every Wednesday evening. Dr. Howard Edwards, President.

M. A. C. Athletic Association—C. B. Laitner, President. G. B. Wells, Secretary.

Columbian Literary Society—Regular meeting every Saturday evening in their rooms in the middle ward of Wells Hall, at 7:00. T. A. Chittenden, President. A. J. Weeks, Secretary.

Eclectic Society—Meets on fourth floor of Williams Hall every Saturday at 7:30 p. m. D. M. McElroy, President; T. H. Libbey, Secretary.

Feronian Society—Meets every Friday afternoon at 1:00 in Hesperian rooms. Miss Pearl Kedzie, President. Miss Hattie Chase, Secretary.

Hesperian Society—Meetings held every Saturday evening in the society rooms in the west ward of Wells Hall at 7:00. A. T. Cartland, President. D. E. Hoag, Secretary.

Olympic Society—Meets on fourth floor of Williams Hall every Saturday evening at 7:00. W. R. Goodwin, President. E. R. Russell, Secretary.

Phi Delta Theta Fraternity—Meets

on Friday evening in chapter rooms in Wells Hall, at 7:00. H. A. Hagadorn, President. C. M. Krentel, Secretary.

Union Literary Society—Meetings held in their hall every Saturday evening at 7:00. G. A. Parker, President. F. W. Robison, Secretary.

Tau Beta Pi Fraternity—Meets every two weeks on Thursday evening in the tower room of Mechanical Laboratory. G. A. Parker, President. E. H. Sedgwick, Secretary.

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## News from Graduates and Students.

Fred P. Clarke, '93, is one of the senate committee clerks in Lansing.

Nathan Mussey entered the College in 1857 from Romeo, where he still resides.

W. G. Smith, '93, took an active part in the institute at Howell last week.

A. J. Bracelin, with '68, is president of the Institute Society for Allegan county.

C. M. Wardwell, with '98m, is rewiring the agricultural laboratory for electric lights.

A. L. Bemis, with '83, occupies the chair of a representative in our State legislature.

T. E. Drayden, '79, has returned from Iowa and is now in business in Grand Rapids.

Geo. A. True, who took the special course in dairying here, was secretary of the institute at Armada.

Henry F. Buskirk, '78, Wayland, is one of the representatives in the State legislature from Allegan county.

H. B. Cannon, '88, spent several days of last week at M. A. C. He gave the students a short talk in the chapel Friday morning.

K. B. Jewett, with '97, has a fine farm near Allegan. He has moved into the city for the winter to give his children better schooling.

James Satterlee, '69, M. S. in '74, is spending the winter in Lansing and will be at the College much of the time. He is at work on a thesis on nut-bearing trees.

Prof. Jay McColl ['90m] of Knoxville University, Knoxville, Tenn., has been in the city during the week, looking over the campus once more. He is a son of Rob't D. McColl, of Webster.—*Ann Arbor Courier*, Jan. 13.

Tracy Gillis, with '94m, who was employed as stenographer in Hon. H. S. Pingree's office for nearly a year, was on Tuesday formally appointed by the Detroit council as mayor's stenographer, with a salary of \$1,200.

A. R. Maynard, with '97, is now a corporal in Battery M, 5th U. S. artillery, and at present is located at Fort Slocum, New Rochelle, N. Y. During an illness since leaving Fort Presidio, San Francisco, Cal., he was reduced in weight 61 pounds.

O. S. Bristol, with '83 for two years, came with his wife, 13 miles from Almont, to attend the institute at Armada. As Mr. Bristol has been raising peaches quite extensively for some years past, he was especially interested in the paper of R. M. Kellogg on small fruits.

A recent letter from Prof. L. H. Bailey, '82, says: "This is the southernmost-railroad station in Florida. It is a boom town. Last year there were only about 25 people here. Now there are 2,500. Many living in tents. Summer weather." The professor is much improved in health.

E. D. Partridge, '96m, who is teaching in the Brigham Young Academy, in Provo City, Utah, writes: "I have started this term with twenty-three hours a week,—geometry, algebra, integral calculus, theology and mechanical drawing. It keeps me quite busy, but I guess I'll manage."

In passing through Washington, Macomb county, I was interested in recalling it as the former residence of Dr. Cooley, who made a large collection of plants of that neighborhood. The herbarium long ago came into possession of M. A. C. Near here also

lived the Cannon boys. H. B. Cannon, '88, now lives there on a fruit farm, while his brother, W. A. Cannon, with '93, is a junior at Stanford University, Palo Alto, California.

## High School.

Some of the high-school principals, in towns where Farmers' Institutes are held, have adopted the plan of sending a delegation of pupils to the institute to make a report. Prin. Sinclair of Gladwin sent such a delegation, and the result is a column write-up of the first session in the *Gladwin County Record*. Clayton Burge and Miss Millard wrote the report, and it is a good one—complete and well written. This is not only good practice for the pupils, but it will have a tendency to awaken in the minds of the young a greater interest in the problems that confront our agriculturists.

It looks now as though we would have no new base ball rules to learn next season. Manager Hanlon, of Baltimore, says no changes in the present rules will be made. The only change in the rules discussed at Chicago was the proposition to abolish coaching, but coaching is the life of the game and will not soon be abolished.

Mrs. Grover Cleveland, with several of her classmates, is to make a present of a beautiful stained-glass window to Wellesley College, where she was formerly a student.

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