

# The M. A. C. Record.

VOLUME 2.

LANSING, MICHIGAN, TUESDAY, MARCH 9, 1897.

NUMBER 10.

## The Round-up Institute.

The Round-up Institute was held at St. Louis, Mich., Tuesday, Wednesday, Thursday and Friday of last week, and was a grand success in every way.

The city provided a most excellent hotel; a commodious opera house, with fair acoustic properties, for the general sessions; a large and elegant church for the women's section; a large store for the exhibits; and, best of all, a splendid attendance of citizens, intelligent and interested in the programs presented at the various sessions.

Notwithstanding the inclement weather of Tuesday and Wednesday, the crowd came and displayed the keenest enthusiastic interest in the program.

The College exhibit was supplemented by a creditable display of grains and vegetables from the surrounding country and several samples brought from a considerable distance. The display of grasses and weeds from the College was especially conspicuous and valuable.

Every institute worker seemed to be on his mettle, and the papers presented were most excellent in substance and well presented. In the discussions on the papers a large number of farmers participated. One of the valuable features of the institute was the "conference of workers" in the Park hotel each morning and afternoon. Methods of conducting institutes were carefully discussed in detail by the local presidents and secretaries, on the one hand, and the workers on the other. From the comparison of views much good will result.

The attendance at the women's sessions was very large. The commodious church was crowded at every session and many were turned away.

We have the names of fifteen former students of M. A. C. who were in attendance at this institute. They are: Hon. C. J. Monroe, with '61, South Haven; Daniel Strange, '67, Grand Ledge; Hon. C. W. Garfield, '70, Grand Rapids; F. W. Hastings, '78, St. Louis; A. A. Crozier, '79, M. A. C.; C. B. Charles, '79, Bangor; Colon C. Lillie, '84, Coopersville; E. W. Redman, '87, St. Louis; J. H. Brown, with '87, Climax; J. W. Ewing, *sp*, Alma; C. B. Cook, '88, Owosso; K. L. Butterfield and H. W. Mumford, '91, M. A. C.; A. B. Cook, '93, Owosso, and M. W. Fulton, '95, M. A. C.

## The Last Day.

If doubt of the entertaining ability of the Feronians ever existed in the minds of any, it was dispelled last Friday evening. Every seat in the chapel was filled when the hour came for the entertainment to begin, and every occupant of every seat applauded vigorously for a first and then a second encore, at the close of the exercises.

When the curtain was drawn the interior of a country schoolhouse was disclosed. A moment later the pupils in short dresses and pinafores began to arrive, and with them came the teacher, Miss Bellis, with waterfall and spectacles. The bell rang, and then ensued scenes familiar to all who have sat the benches of the "deestricht schule" house, except that all the pupils were girls. It was the last day of

school and, as of yore, the forenoon was devoted to regular class work and the afternoon to speaking pieces. Of course the district board (all women) and some of the fond mothers were there, and in accordance with tradition they made wise speeches to the young hopefuls.

The plot of the farce was old as the "Berkshire hills," but much of the material was new and all of it was funny. Many good hits on the professors and the boys were worked in, so that the audience was kept laughing from beginning to end of the program. The Feronians realized about \$17, which will be used toward furnishing their society rooms.

## Obituary.

On the morning of February 5, James S. Conway, clerk to the director of the Experiment Station, was found in his room helpless from a stroke of paralysis. He was at once removed to the hospital where he was given the best of care; but it was evident almost from the first that he could never rise from his bed. But little change in his condition was noticed until last week, when he began to fail quite rapidly. Saturday morning he was called to his last rest. His father, sister and one brother were with him when he died.

The remains were taken to the old home, Decatur, for burial, and were accompanied by C. D. Butterfield and W. J. Merkel from the Eclectic Society, of which he had lately become a member.

Mr. Conway was an example of what an ambitious young man may accomplish under adverse circumstances. Being obliged to leave his chosen occupation, farming, on account of ill health, he fitted himself for a new occupation, stenography and typewriting, and was making rapid advancement when cut short in his work. His exemplary character and sterling worth won him many friends at the College, who feel that it is indeed a misfortune that he should be so early called away.

## A Bit of Vandalism.

In the middle of the highway just south of Grand Rapids is a half mile of beautiful native trees. On either side is a good road bed, and to one whose appreciation of the beautiful effects produced by a variety of trees arranged naturally in pretty groups, this is one of the most delightful pieces of highway outside our city.

The other night somebody who did not have the love of God in his heart and did have an axe in his hand, cut down and carried away one of the most beautiful trees in this line. It was an act of vandalism thoroughly reprehensible, which should be looked after by the officers who have charge of the highways. The responsibility for caring for the roads does not rest very heavily upon the shoulders of our pathmasters, and we can hardly expect that the overseer of the highways in this district will follow this up, but the very fact that we cannot expect anything from this officer illustrates the weakness of our road system.

Just within the city limits in the south end, in front of a residence,

stands a beautiful white oak tree. The owner of the premises has been thoughtful enough to place a hitching post for the accommodation of the public, but a careless fellow who drives a delivery wagon, and had perfect confidence in the staying qualities of his horse, neglected to hitch him the other day, and during the few moments that the driver was occupied with his errand the oak tree was girdled by the horse's teeth. Neglect of this kind is criminal. The visitation of providence as a result of this carelessness will be shown in the death of the tree, a pecuniary loss to the owner and a loss to the general public.

Another matter of roadside desecration ought to be given some attention by the authorities, and that is the habit that is so prevalent among business men of advertising their lines of business by painting signs on the boards of the side fences or tacking up unsightly signboards upon the wayside trees and along the road fences, without asking leave or license from the owners of the property. Something is also due to people traveling along these roads as well as to the owners of the abutting property. The attractiveness of the wayside in a large measure adds to the pleasure of traveling, and all blemishes should be avoided.

We cannot bring about a reform in this matter at once, but it is certainly worthy of earnest consideration.—Hon. C. W. Garfield in *Michigan Fruit Grower and Practical Farmer*.

## A Cheap Substitute for Paris Green as an Insecticide in Spraying Mixtures.

BY R. C. KEDZIE.

A large demand for poisons to kill potato bugs, army worms, etc., and the use of arsenical preparations for spraying mixtures, and the high price of Paris green at times when it is most in demand, lead farmers and fruit-growers to ask whether some cheaper and equally effective material can be found as a substitute. The following is a specimen of inquiries that come to the chemical department on this subject, and to answer many inquiries I reply to this through the *Farmer*.

Dryden, Mich., Jan. 25th, 1897.  
Dr. R. C. Kedzie, Lansing:

Dear Sir—We had a great deal of trouble last season fighting potato bugs with poor Paris green. I see on page 46 of Bulletin 124, April, 1895, L. R. Taft speaks of using white arsenic in the orchard. Can we use it on potatoes if carefully dissolved and properly diluted? We have a machine with three good spray nozzles that will put on any desired quantity perfectly. I inclose stamp for reply, but if you prefer answering through the *Michigan Farmer*, others may be pleased to hear from you. Yours truly,

E. S. MILLER.

I immediately wrote for a sample of the Paris green for analysis, but none could be had of that particular kind.

## ACTION OF ARSENIC IN SOLUTION ON PLANTS.

Arsenic in solution poisons plants, and even in dilute form it liable to burn the leaves and tender parts of plants. This is an objection to the use

of white arsenic dissolved in water as a spray for plants. This is not because of any acid property of the arsenic, for it is equally injurious when its acid property is neutralized by soda, forming the very soluble arsenite of soda. I have heard of a farmer who ruined his apple orchard by spraying with this arsenite of soda. Arsenic and soluble arsenites should not be used for spraying.

Insoluble arsenites, like the arsenites of copper, or arsenite of lime, are not injurious to plants when used for spraying in the quantity required to kill potato bugs, caterpillars, etc., but these insoluble compounds are equally effective as insecticides when eaten by these pests. They kill bugs and worms that eat them just as surely as the soluble compounds of arsenic would, if eaten.

## THE CHEAPEST SAFE ARSENITE.

The arsenite of copper (Scheele's Green) and the aceto-arsenite of copper (Paris green) have a certain amount of poisonous property in consequence of their content of copper; but the poisonous material we depend on—the dead shot for bugs—is the arsenic they contain. The cheapest arsenite is arsenite of lime, which is also a safe material for spraying because it is so insoluble.

Arsenious trioxide, "White arsenic" of the shops, or "Arsenic" in common parlance, is very cheap. It can be sold for ten cents a pound and leave a fair profit to the dealer. A pound of arsenic is equal to two pounds of Paris green as an insecticide. Lime is worth about twenty-five cents a bushel, or about half a cent a pound. The materials for making a spray for insects are very cheap.

## HOW TO MAKE ARSENITE OF LIME.

Some recommend boiling a pound of arsenic and two pounds of fresh slaked lime in two gallons of water for twenty minutes, then dilute with 400 gallons of water. There are two objections to this method: 1st, The arsenic dissolves slowly, and it is difficult to tell when it has all dissolved and combined with the lime; 2d, if prepared in large quantity for use for the season, the arsenite of lime will settle into a solid mass after keeping, and will not readily mix with the quantity of water required for spraying.

## A BETTER WAY.

Dissolve the arsenic by boiling with carbonate of soda, and thus insure complete solution; which solution can be kept ready to make a spraying solution when wanted. To make material for 800 gallons of spraying mixture, boil two pounds of white arsenic with eight pounds of sal-soda (crystals of carbonate of soda—"washing soda"—found in every grocery and drug shop) in two gallons of water. Boil these materials in any iron pot not used for other purposes. Boil for fifteen minutes, or till the arsenic dissolves, leaving only a small muddy sediment. Put this solution into a two-gallon jug and label "Poison—stock material for spraying mixture."

The spraying mixture can be prepared whenever required, and in the quantity needed at the time, by slacking two pounds of lime, adding this to forty gallons of water; pour into this a pint of the stock arsenic solution. Mix by stirring thoroughly, and the spraying mixture is ready for use. The

arsenic in this mixture is equivalent to four ounces of Paris green.

CASH FOR EIGHT HUNDRED GALLONS OF SPRAYING MIXTURE.

2 pounds white arsenic.....	\$0 25
8 pounds salsoda.....	25
40 pounds lime.....	20
	<hr/>
	\$0 70

Cost per barrel, 3¼ cents.

#### ADVANTAGES OF THIS METHOD.

1st. It is very cheap, and the materials can be found in any village in the state.

2d. The stock material (arsenite of soda) is easily prepared, and can be kept in that form for any length of time, ready for making a spraying solution with lime water.

3d. The arsenite of lime, in the quantity required for spraying, will not burn the leaves or injure the trees or plants.

4th. It will be uniform in quality and not vary in strength as Paris green often does.

5th. It makes a milky-colored spray and the color on the leaves will show how evenly it is distributed.

Every one using such deadly poison should bear in mind the possible dangers from its use. The pot, the jug, and other apparatus for making and storing the stock mixture of arsenite of soda, should be used for no other purpose of any kind.—*Michigan Farmer*, Feb. 13, 1897.

#### At the College.

The Hesperians entertained ladies informally, Saturday evening.

S. J. Redfern, '97, entertained Mrs. T. J. Annis, Maple Rapids, last Wednesday.

President and Mrs. Snyder entertained the Westminster Guild of Lansing last evening.

Messrs. P. K. Fuller, Northville, and O. Tolman, Bath, visited the College one day last week.

Rufus W. Landon, '98, fainted when coming from the botany class last Thursday morning. He was out again Saturday.

Last Sunday, Rev. C. F. Swift gave in the chapel another of his sermons on "The Novelist as a Preacher." The lesson was "The Penalty Within," based on Hawthorne's "Scarlet Letter."

Notice.—All who have not passed the entrance examination in U. S. History are requested to call at the English office, second floor of College Hall, at 10 a. m., next Saturday, for examination.

The Union Literary Society program, Saturday evening, consisted of a declamatory contest between the freshman members of the society. C. H. Hilton was awarded first honors and S. Kennedy second.

Remember the informal military hop Friday evening, March 12. Music will be furnished by Roy Bristol and Miss Meach. The presence of all students, alumni and faculty is desired. All students or others who have friends they wish present at the hop should call on I. L. Simmons at once and secure some of the printed invitations which must be used in such cases. Come and have a good social time with us. Music will begin at 8 p. m. as usual.

Dr. Edwards asked a freshman, not long since, to write an introduction to the book of Esther. The freshman looked somewhat puzzled, but said nothing. The next day he approached the doctor, and, scratching his head, said hesitatingly: "Would you mind telling me who is the author of that book?" It transpired that he had

spent considerable time in the library in an unfruitful search for *some* book beginning with "E," the name of which he had forgotten.

Some two years ago Mr. A. A. Crozier contracted a very severe cold from which he has never fully recovered. He has not been as well as common this winter, the cold and close application to his work having affected his general health to such an extent that it was deemed wise that he should avail himself of the benefits of a change of climate for a few months. He started for Las Cruces, New Mexico, last Thursday morning, with the sincere wish of all his many friends that he may come back to us fully restored to health.

The sophomores had been given careful directions for making and testing chlorine gas, and had been warned not to allow it to escape into the room. After a short absence from the laboratory, the professor in charge returning found the room filled with chlorine gas and the students coughing from the effect of it. At a white heat he rushed up to the student whose generator was doing the mischief and thundered, "What do you mean by this? What are you made of, M. —?" "I—I don't know, professor; I haven't studied chemistry long enough to know."

#### Alumni Reunion.

SECOND ANNUAL REUNION OF THE CHICAGO M. A. C. ASSOCIATION.

(Reported by RAY S. BAKER.)

Twenty-three "farmer boys of Chicago," the members of the Chicago M. A. C. Association, held their second annual reunion and banquet on Saturday evening, Feb. 27, at the Union League club. They began to gather at six o'clock, and for the next hour there were many hearty greetings and hand shakings, such as only parted sons of a loved Alma Mater can give. Some of the "boys" were gray-haired and remembered the college when stumps dotted the campus in front of the old "Saints' Rest" and others were graduated so recently that their sheep-skins have not yet begun to yellow. Eleven classes were represented, extending over all the years from 1864 to 1896. The class of '64 led in age and it was represented by S. M. Millard, president of the association, and Prof. W. W. Daniels of Wisconsin University. The next nineteen classes gave no voice, but '83 appeared with two representatives, J. H. Smith and Albert W. Mather. '84 was present in the person of C. E. Smith, and '86 and '89 were the banner classes in numbers, each having four men in attendance. W. R. Rummeler, vice-president of the association, A. E. Brown, S. G. Walton and Harry B. Howe, who came from his home in Michigan, represented '86; and W. S. Palmer, T. J. McGrath, W. L. Rossman and Ray S. Baker, secretary of the association, represented '89. From '88 came L. A. Bregger, Paul M. Chamberlain and Dr. John Wesener; '91 gave E. P. Safford; '93, O. H. Pagelson; '94, M. F. Loomis; '95, Walter J. Goodenough and H. R. Parrish; and '96, Steven W. Tracy.

The center and heart of the gathering was Dr. Kedzie, and he knew every one of the boys from the earliest to the latest, and for each of them he had a hearty grasp of the hand and a kindly word—or a pun. The boys of the early '80s were sure that he had not grown an hour older in appearance since they knew him fifteen years ago, and the boys of '64 went still further; they said he was a much

better looking man in 1897 than he was when they first knew him fresh from the war in his major's cap, more than thirty years ago.

At the banquet room twenty-three loyal M. A. C. men gathered at a large round table decorated with ferns and carnations. Over the coffee an hour later President Millard arose and spoke with feeling of the College and its dead presidents. His address, in part, follows:

Gentlemen and Fellow Alumni:—

It is with great pleasure that I have the honor of welcoming you to this gathering tonight.

There would be nothing unusual in this meeting of College Men were it not for the fact that we not only join in celebrating memories of the past, but we also have a natural pride in belonging to a College which was founded on the progressive idea of broadening the scope of a college education.

The Agricultural College had its birth in the early fifties. The old fashioned classic college had for centuries furnished the sole source of a higher intellectual training. During the predominance of these older institutions, the farmer, the mechanic, the artisan and the mercantile man were developed by physical processes, aided only by common sense and handicapped by common superstition, while the apprentice system made a machine of the boy who learned to do his work, as the trip hammer ascends and descends with mechanical regularity and without a thought behind it.

We have during the last quarter of a century observed the effect of a broad practical or scientific education brought into the life of the business man, the mechanic and the farmer. It would be impossible to return to the older methods. The progress of inventions forced a public sentiment and a public demand for a broader education. From this demand first sprang the idea of enlightening the farmer and of making his work an applied science.

It is history—that the first experiment station was established in a small town near Leipsic, Germany, in 1851. Now there are three hundred such stations.

We all know that our Alma Mater was the first agricultural college established in America, and that was in 1857. Now there is an agricultural college, either independent or as an adjunct to some other institution of learning, in every state and territory in the union.

The development of this new system of education has been wrought through a series of experiments, and by men of many minds. For years it was misunderstood, and for years it received nothing but the adverse criticism of the pessimist and the ridicule of the farmer.

To find men who could patiently work to a conviction and with unswerving integrity, pursue the new idea in the face of all obstacles, was like finding a Luther or a Savonarola to conduct a reformation. Many and serious were the failures of men and methods.

It is within the memory of every graduate here, and especially of the older ones, that our Alma Mater, a pioneer, was conducted through all of the various stages of its development by a man and a scholar whose name is indelibly impressed upon the history of our College; to whose modest perseverance—patient and persistent efforts to develop and establish the new idea we owe the solid foundation upon which the Michigan Agricultural College is now resting. He was its first pilot. We learned to respect him for

his simple greatness and his lovable nature. He lived near to the students; he drew them to him as a loving mother draws to herself her children. His presence was elevating and refining; his character pure; his life simple; his friendship sincere. No man was more sincerely loved by his students than was President Theophilus C. Abbott—now gone to his long rest and his well earned reward.

While we linger over his memory, we come to the life of a second man, whose identity with our College is another bright spot in its history—President Willetts—none the less devoted to a principal, took up the work and came into the life of the College in time to keep the current of success pure and increasing. He was a man of men—his was the privilege to push forward and round up into a full popularity and usefulness the work of his predecessor. His sympathy with his work was genuine; he reached the people and brought them nearer to the College and the College men who had gone out into the world. While his years of activity in the life of the College were less in number than his predecessor, his energy and force brought to us a substantial reputation and increasing favor among men whom the College was intended to benefit.

We do not forget the co-workers with these two great educators, and founders of modern education. We are honored tonight by the presence of almost the only surviving member of the faculty of 1863 and 1864. He whom we are proud to call our Nestor in our College history and in our College association. We all come together rejoicing in the revival of old memories and old associations. Yet we stop at the threshold of our evening of rejoicing and reflect that many whom we loved best are gone forever. And while the solemn thought casts its shadow of sorrow before our memory's vision we pause to show our respect to the memory of those two men who were our guides and our counsellors, and whose memory we honor and revere; and as time increases the distance between the living and the dead, may our recollection of these men and of our departed brethren grow more beautiful and their deeds appear more noble.

At the mention of the "Nestor of our College history," the boys all leaped to their feet and gave three cheers and an M. A. C. "ooz, ooz, ooz," for Dr. Kedzie.

President Millard then read the following letter of regret from President J. L. Snyder. It was received with vigorous hand clapping:

"Your kind invitation to be present at the Alumni banquet has been received and I regret very much my inability to be present. I am glad to learn that the M. A. C. boys of Chicago still have a warm place in their hearts for their Alma Mater. The old College reciprocates this feeling and extends to you all a hearty greeting. She has great reason to be proud of her children. In whatever vocation of life they may be found they are known as men of energy, culture and honor. These qualities together with an undying loyalty to all the College holds dear has made the Alumni the great moral support of the College. They can be counted on at all times and under all circumstances to stand by their old colors.

We shall gladly welcome you all to the Tri-ennial Alumni Reunion which will be held at the College next June."

The secretary then read greetings from Charles W. Garfield, '70, who reported that he had taken the initiative in the formation of an alumni

association in Grand Rapids; from A. H. Voight, '81, of Los Angeles, Cal., who said he would like to be present; W. W. Diehl, '87; W. A. Taylor, '88, who sent the greetings of the Washington colony of M. A. C. men; Dr. E. S. Antisdale, '85; Frank H. Hall, '88; J. W. Earle, with '89; C. B. Charles, '79; W. M. McGrath, with '93; J. E. Hammond, '86; W. E. Davis, '89; J. W. Rittering, '95; C. R. Dart, '81; W. H. Vandervoort, '89; Prof. E. Davenport, '78; Alva Sherwood, '81; W. C. Stebbins, '95, and several others.

President Millard said that he had reserved one letter for the last and he and he felt sure that all of those present would be much interested in hearing it. Amid much laughter he read the following letter from Dr. W. J. Beal:

"I should be glad to be with you on the 27th and shake the right hand of every one—all of them horny handed sons of toil, fresh from the fertile fields and shops of Chicago. The evening will pass too quickly where all are interested in the same theme. The days we spent at M. A. C.

Whatever may have been the occupation selected by her former sons and daughters, they are all unanimous in the opinion that the training here given has proved very useful in helping to win a living and a good name. Often the students did not realize this to so great an extent while at the College as they have since meeting the various problems of life.

Whether defending a rascal in court to secure his money, or persuading a man that the insurance is too light on his life or his dwellings, or that he can never prosper till he purchase a certain dear little spot of land; whether helping the city to manage its affairs, or the United States in furnishing bad weather; whether nicely arranging the last resting place of the dead, or sawing off legs, or hunting for the holes in the teeth; whether engaged in making or selling any kind of wares; whether he busy himself running the streets and the town, to gather items for others to read in the morning paper, or whether he teach in classroom or shop—all alike find the practical trend of the training at M. A. C. most useful. In fact the training turned out better than they thought it would. For, do you not all there in Chicago, have to look after your fences, to keep them pig tight and bull stout, and isn't there plowing to be done the year round, subsoiling, back furrowing, and sometimes a dead furrow, and harrowing of the most thorough sort? Immense quantities of wheat are raised (elevated) in Chicago, I understand, and there must be a great demand for hands in harvest time. You see how the training of pulling stumps at M. A. C. comes in play for the dentist. Doubtless you must all have more or less opportunity to make use of your knowledge of log-rolling.

The courses contain much for discipline and development of mental power—something for training the eye to see and the hand for skill. Here you learned to do things, as well as to think.

Finally do not forget that while you are improving and prospering, the College is adding some new equipment every month in every year—that to keep in touch with the growth of your Alma Mater, you should read the M. A. C. RECORD, and, by all means visit the beautiful campus and call on the professors who love you more than you can believe or understand. Mr. President, I hope that before the close of your festivities the younger alumni will spend a little time in exemplifying

ALWAYS ON TOP.....

# DAVIS & CO.

104—Washington Ave. North—104

OUR WINTER GOODS ARE NOW IN—WE WILL BE PLEASED TO SHOW THEM TO YOU.

OVERCOATS, ULSTERS, BICYCLE OVERCOATS  
PEA JACKETS AND VESTS, SINGLE AND DOUBLE BREASTED MELTON SUITS  
ALL UP TO DATE.

Also Full Line of ...  
Furnishings and Hats

Come in and see us anyway

**CLOSING SALE** ON...

**A FEW STYLES**

\$4.00 Patent Leather Shoes - -	\$1.95
2.75 Dancing Pumps - - -	1.95
5.00 Patent Leather Shoes - -	2.95
5.00 English Enamel Shoes - -	2.95
4.00 Winter Russia Shoes - -	2.95
6.00 Patent Leather Shoes - -	3.95
6.00 French Enamel Shoes - -	3.95
5.00 Winter Russia Shoes - -	3.95

Also All Ladies' \$5.00 Patent Leather and Enamel Shoes to close at - \$2.95

**\$1.95**

**\$2.95**

**\$3.95**

**Patent Leather, Enamel  
and Winter Russia SHOES**

. We are now closing all broken lots of English  
. Enamel, Patent Leather and Winter Russias at  
. . ONE, TWO and THREE NINETY-FIVE. . .  
This is your opportunity. . See Shoes in Window.

**C. D. WOODBURY**

103 Washington Avenue South.

to you the wonder and beauty of the M. A. C. Yell, some parts of which cannot be well committed to writing."

After the reading of this letter the boys again arose from their chairs and gave three cheers and the College yell for Dr. Beal.

In a witty speech in which he told some of his early experiences in chemistry, President Millard introduced Dr. Kedzie, who was received with much applause.

Dr. Kedzie made the admission in response to Mr. Millard's sallies, that he didn't know much about analytical chemistry in those old days and that he was sometimes awed in the presence of the juniors of '64. Then the boys realized how long ago this must have been—when Dr. Kedzie didn't know all about chemistry.

Dr. Kedzie's address was earnest and helpful and he made those present feel that the usefulness and power of a college lay quite as much in the influence of high-minded and devoted men in its professors' chairs as in its curriculum and equipment.

When the cheering that followed the close of Dr. Kedzie's speech had subsided Prof. Daniels was introduced and he told many amusing stories of the early days at M. A. C. and of the gray-haired graduates who then were boys. C. E. Smith, '84, spoke with much eloquence on "M. A. C. graduates in Business Life." W. R. Rummeler, '86, told some stories of College life, and Prof. Paul M. Chamberlain spoke from the point of view of a mechanical student at M. A. C.

The officers for the ensuing year were chosen as follows:

- President, Harry E. Emmons, '78.
- Vice-President, J. H. Smith, '83.
- Secretary, L. A. Bregger, '88.

After short but entertaining speeches by Mr. Smith and Mr. Bragger the health of "Old M. A. C." was proposed with a will, and the reunion of 1897 was a memory.

Miss Agnes G. Scott, of the Alexandra College, Dublin, has been awarded the gold medal for first place in mathematics, in the senior grade, by the board of intermediate education.

**Society Officers.**

Three of the literary societies have elected officers for the spring term, as follows:

**HESPERIAN.**

President, C. B. Laitner; vice president, W. C. Stewart; secretary, L. E. Sage; treasurer, L. C. Smith; marshal, E. D. Sanderson.

**OLYMPIC.**

President, Elwood Shaw; vice president, George Campbell; secretary, W. K. Brainerd; treasurer, F. M. Stocking; marshal, C. A. Warren.

**UNION LITERARY.**

President, L. S. Munson; vice president, F. L. Woodworth; secretary, G. N. Gould; treasurer, H. C. Skeels; marshal, C. H. Hilton.

**Not a Boston Owl.**

Ben T. Cable, former congressman from Illinois, son of President Cable of the Rock Island railroad, and a graduate of Harvard, makes his headquarters at the University Club when in New York. He stopped there the other evening en route from the Adirondacks to his western home. He had been dividing his cares and doubling his joys mountaineering with John Paul, the writer and poet. John Paul is a waggish wit, and is the hero of the following story, now going the rounds of the University Club. Inspired by the beauties of nature in the mountain fastnesses, he wrote:

"I wooed in the wood  
And the birds understood,  
When I said, 'I'll be true  
Forever to you,'  
An old owl said:  
'Tu Whoo?'"

He took the effusion to the Century. It refused because "the last line was not grammar." Mr. Paul, who, not unlike a few other geniuses, stutters a bit, said: "Why, it-t isn't a B-B-oston o-owl!"—*Time and the Hour.*

Eyes were made to droop,  
Cheeks were made to blush,  
Hair was made to crimp and curl,  
Lips were made—Oh hush!

—Ex.

IF YOU MAKE A

## ❀❀ Mistake

And get in the wrong  
place try Thompson  
& Van Buren for your  
next job of printing.

IF YOU NEVER MADE A

## ❀❀ Mistake

Be sure you're  
started right (for  
Thompson & Van  
Buren's) then go  
ahead.

**OTTAWA  
STREET EAST**

FOR ANYTHING IN

**HARDWARE,  
STOVES,  
TINWARE,  
GRANITE WARE,  
CUTLERY, ETC.**

TRY

**... Norton's Hardware**

111 Washington Ave. S.

# The M. A. C. Record.

PUBLISHED WEEKLY BY THE  
MICHIGAN AGRICULTURAL COLLEGE

EDITED BY THE FACULTY,

ASSISTED BY THE STUDENTS.

ADDRESS ALL MAIL TO LOCK BOX 262,  
LANSING, MICH.

SUBSCRIPTION, 50 CENTS PER YEAR.

Business Office with ROBERT SMITH PRINTING  
Co., Printers and Binders, Corner Washington  
Avenue and Ionia Street, Lansing, Mich.

Entered as second-class matter at Lansing, Mich.

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.

The initial number of the Bulletin of the Michigan Ornithological Club, just received, is a neat little journal of twelve pages printed at Grand Rapids and devoted to the bird interests of the Great Lake region. It is the official organ of the club whose name it bears, and will be issued quarterly, probably in January, April, July and October. The club has a membership of sixty, mainly residents of this state, and in the present issue of the Bulletin there is not an article, note, or news item which is not written by one of this number. The paper is well printed, well edited, is replete with notes of interest to bird-lovers, and should meet with a hearty welcome. The editor in chief, L. Whitney Watkins, of Manchester, is an M. A. C. graduate; T. L. Hankinson, '98, is one of the assistant editors, and Leon J. Cole, with '98, is one of the managers, as well as secretary of the club. Success to the enterprise.

## Grateful Acknowledgment.

To the M. A. C. RECORD:

It is very gratifying to me to read the very kind words written by those with whom I have been associated for many years. I am glad to acknowledge the comfort they give me in this the sunset of my life.

In behalf of my associates and for myself I wish to correct an error in regard to the time away from home which is given by members of the board. I find from a memorandum now before me that I was absent from home on the business of the College in 1896 forty-one days, and in consequence of the sickness of my wife or myself I was absent on three occasions, which would make about fifty days. I am confident that there has been but one year when I have spent less time on the business of the College than in 1896. There was one year during my first term that I was from home on the business of the College eighty days. I believe that the average has been fully sixty days and I ask credit for two years time which I have cheerfully given and I hope for the benefit of useful education. There are other members of the board who have been from home as much as myself, and there are yet others who have given much more of their time when at home than I have.

The place is no sinecure, but I have been amply repaid for all time and trouble by the cheering words and kind regrets of those who have been associated with me in this great work.

Very truly,  
Henry Chamberlain.

## Should Students Use Tobacco.

If the student wishes to increase his weight, height, chest girth, and lung capacity, and presumably, therefore, his general health and his ability to do his work properly, he certainly will not use tobacco, if he heeds *Modern Medicine*, which publishes the following remarks on the use of tobacco in American colleges. It says:

"A crusade against the use of tobacco has recently been started in a number of our American universities. It is a recognized fact that tobacco, when taken into the system in any form, is injurious not only to the physical health, but to the intellectual development as well. The results obtained in schools where the use of tobacco has been discarded are very encouraging, and show clearly the harmful effect which this obnoxious weed has upon the system. It is gratifying to note that some of the best colleges of our country have taken a decided stand against its use by their students. The Boston University has issued an ordinance that those students who are unwilling to forego the use of tobacco while within the precincts of the university will have their fees returned, and their names taken from the books. The Ohio Wesleyan University has made a rule forbidding its students to use tobacco in any form, and other universities have made similar ordinances."

That this opposition to the use of tobacco by the lad who is growing both in body and mind is solidly founded on observation the following facts are held to show:

"In some of the higher educational institutions of this country attempts have been made to obtain statistics as to the effects of tobacco on the academic youth. In 1891 the official physician of Yale published the results of observations on the undergraduates of that university. In a class of one hundred and forty-seven students, he found that in four years seventy-seven who did not use tobacco surpassed the seventy who did use it to the extent of 10.4 per cent in increase of weight, 24 per cent in increase of height, and 26.7 per cent in increase of chest girth. The most marked difference was, however, in point of lung capacity, the abstainers showing an average gain of 77.5 percent more than smokers or chewers. Among the undergraduates at Amherst it was found that during the four years the abstainers from tobacco gained 24 per cent in weight, 37 per cent in height, 42 per cent in chest girth, and 75 per cent in lung capacity over those who used tobacco."

## Real Education.

H. CARAMANIAN, '99.

Among the long series of important questions that confront the mind of a thoughtful man, there is one which has a place of prominence for itself; a question that is born with the baby, follows it along the troublesome path of life, and after its death remains to its heirs as a blessed or cursed inheritance; a question that marks the value of a person individually and that of a nation collectively. It is education that I refer to. It has been before, is now, and will be in the future, the great factor of the civilization of the world. But what is real education? The object of the following lines will be to explain it as far as possible: True education is the thorough training of man physically, intellectually and morally. The culture of body, mind and character make the educa-

tional trinity so essential and powerful. The really educated man unites in himself the qualities which the refinement of manners, dignifying of ideals and the strength of good habits afford. Like most other problems the exact meaning of education is misunderstood by many. Some think that education begins with simple reading and ends at writing letters with a dozen errors. Others believe that the collection of a great amount of valuable information, or storing up the facts of astronomy side by side with a few remarks on dairy bacteriology is education. These are worthless fractions of the educational whole, and hardly amount to anything. A scientist with only scientific culture, as well as a man who has only fine manners and politeness, is not perfectly cultured. Though their value is higher than the class above mentioned, they are far from being really educated. I remember a young man in Constantinople who had the outside show of a perfectly educated gentleman; he knew how to walk around gracefully, bow down and tip his hat. Once we were looking at a photograph of the statue of Christ taken from the museum of Rome. After some remarks, he asked me, "Is this the statue of our Christ?" At that moment I had the wild desire of plucking off his silk hat and gold-framed eyeglasses, sell them, and with the proceeds buy some furniture for his brain.

Real education must commence very early. Good or bad education of a baby, even in the cradle, makes the sound or corrupt foundation of his future life. The very first smiles, talks, cares, and affections tendered to it, are the distinct cornerstones on which the future training has to be built up. Artificial or acquired education is like that given to a cat who used to serve the coffee of his oriental master, but as soon as he saw the mouse at the corner, threw away the coffee cup, which of course broke to pieces, and rushed upon the mouse.

Physical education is the training of the body in such a way as to prepare it for the trials of a hard life. "Sound mind in sound body," says the proverb. A sickly man not only fails to perform his daily physical work, but he is also unable to do mental work. A good training of body is necessary for the farmer to direct his plow, as well as to the orator to emphasize his words with volume of sound and a healthy, firm and vigorous appearance.

Intellectual and moral education are the two other principal divisions of real education. The former deals with the training of mind. It is not acquired promptly. The long period of school life educates the mind in the proper way. The time we live in makes it indispensable that we train the mind thoroughly. The struggle for existence is tending to turn in favor of him who has the greater store of worldly knowledge and understands how to put it in practice.

Moral education is perhaps the most important branch of culture. It consists of the training of the soul, as a result of which the character of man is formed. It causes the development of spiritual energies, elevates his soul from the vulgar scenes of every-day life, so flat and so commonplace, opens before him that page of the golden book where his duties towards his Creator, his fellowman and himself are written, informs him of the real object of life, makes him clothe the naked and mingle his tears with those of the sufferer.

Then education to be rightfully called real must contain the important

branches mentioned above; those are its consisting parts; any one of them is deficient by itself alone; and an education with the lack of a single one is not worthy to be called Real Education.

## Gymnasiums in Eastern Colleges.

EDITH A. SMITH, '00, OF THE FERONIAN SOCIETY.

Some people are inclined to connect physical training with the "new woman," and hence consider it unwomanly.

Let us go back through history and we will find that it is no newer than Plato's Republic, wherein he says, "woman should have the same physical training as man, that the race may be continued in the highest perfection of mental and physical vigor."

Spartan girls were subjected to a course in physical training the same as their brothers, and as a result they were handsomer and more attractive than the delicately nurtured Athenians.

As time went on, women almost entirely gave up physical exercise, until they were practically weak lugged, narrow chested, wasp waisted bodies. Girls who attended college were not able to keep pace with young men, because of their delicate health; but this is being overcome by the physical training for girls, which has been introduced into nearly every college, and they are becoming stronger bodied and brighter minded as a class. They are waking up to the fact that a Juno form is the best from all standpoints.

Eastern colleges especially are directing their attention along this line, and nearly every one has its gymnasium where each student exercises at least an hour twice a week, besides indulging in cricket, croquet, lawn tennis, riding, cycling, and other athletic games.

As I have a fair representative of all eastern colleges in Vassar, I will try to describe the method pursued there. The Swedish system is used.

Each student is dressed in a uniform of blue flannel, which consists of a loose blouse and a short, full, divided skirt.

From the time a girl enters college, she is obliged to take gymnasium work and an hour or more of out door exercise daily.

In preparation for their exercise, they stand in two long rows, one directly in front of the other, and "count two's." They then take exercises to use nearly every muscle in the body. If there is ever any complaint that an exercise or movement causes pain, that movement is repeated until no pain is felt. The girls soon learn not to complain. After this they exercise on the vaulting poles, each one as the instructor gives the command. The slanting rope is also used. No student is allowed to venture to the top until quite expert, when it is done with ease.

Nearly all exercises end with a game of basket ball. All must take long walks; and a trip of ten or even twenty miles over the highlands of the Hudson is looked forward to with much pleasure and is always greatly enjoyed.

Some twenty years ago, seven or eight base ball clubs suddenly came into being, owing to a few quiet suggestions of the resident physician, who was wise beyond her generation. The public, and mothers at home, were greatly shocked at this; nevertheless the clubs were not broken up until lawn tennis was introduced, which still hold favor.

It is only a few years since athletic games such as battle-ball and basket-

ball were introduced in connection with gymnastics. Golf came, but was voted uninteresting and soon abandoned; basket-ball, however, has been enthusiastically received.

Each class has its team and substitutes, and inter-class contests are held. Nearly all colleges give public exercises each year. Drexel gives two.

A graduate of a western institution, the University of California, says, "the effects on our basket-ball girls have been perceptible in a single year; all their attitudes toward life have taken on a healthier and heartier tone."

One cannot watch a game of basket-ball without noticing the will-power, nerve-control, and general self-government which the rules of the game cultivate.

As a result of athletics we may notice the increased stature of women, and a correct æsthetic judgment now pronounces the normal form the most beautiful.

There is a great problem before us; which is that of making general the habit and love of out-door exercise and sport. Western colleges have tried to strengthen athletics by inter-collegiate contest, and they seem to feel that they will be successful; but eastern institutions, disapprove as they think it would be too great a strain on the players, and the tendency would be to lessen, rather than to increase the number of players by discouraging the less expert.

One great failing of our girls at college is too close application to books and not enough attention to athletics and all physical exercise, but this is gradually being overcome.

Eastern colleges are seeing the benefit their students derive from this training, and why should not others follow their example. We hope that in a short time the opportunity for physical training may be offered the girls of M. A. C.

**Luminous Photographs.**

These photographs, according to J. A. Randall in an article on "The Magic and Mystery of Photography," published in the *American Journal of Photography*, January, were first introduced at a ball in Vienna, where programs were decorated with a luminous picture representing an alchemist at work. "There are several ways of making luminous photographs, the simplest being that of W. B. Woodbury. A sheet of cardboard is coated with a luminous paint and exposed to light under a glass positive or transparency. On removing the cardboard to a dark room a striking and brilliant phosphorescent image is seen, with all the gradations of the positive. The effect may also be produced by arranging a series of glass tubes, containing a phosphorescent substance, behind a thin glass positive; on exposure to light the luminosity of the tubes will shine through the positive in proportion to its density. When viewed in the dark, a glowing image is the result. Another method, which can be applied to an ordinary print on thin paper, is as follows: Take a sheet of cardboard, and spread over it as evenly as possible a thin coating of starch paste; when still tacky dust over it an even layer of powdered calcium or barium sulfid, rubbing it well over with a brush to make it adhere in every part. Then take the print, which should be light, and fixed and toned as usual, and saturate it with a mixture of castor oil and oil of turpentine, taking off all excess with a clean rag. The print, thus made semi-transparent, is next pasted upon the prepared cardboard, and the

whole well dried before the fire. A print thus prepared, when exposed to light, receives the rays on the phosphorescent sulfid beneath, which becomes luminous in proportion to the absorption which has taken place; it is therefore luminous in the dark by the light transmitted. A silver print is soon destroyed by this process, for the sulfid attacks the image; it can be applied to the carbon or other processes not having silver as a basis. Moonlight pictures and landscapes give the most striking effects as luminous photographs."

**A Bee That Stows Its Honey Away in Bags.**

The following description of the leaf-cutting bee, which packs its honey away in underground burrows, in tiny bags made of bits of leaves, is given in *Knowledge* (November 2) by Francis M. Duncan:

"The leaf-cutting bee (*Megachile centuncularis*) is by no means a remarkable looking insect, and from its humble exterior no one would imagine it to be gifted with a high sense of intelligence; it does, however, display a surprising amount of ingenuity in the construction of the cells in which it places its eggs.

"These bees are black in color, with reddish hairs on the thorax and white down upon the head. They are somewhat smaller than the hive bee, and are to be seen in most gardens during the summer months busily engaged cutting rose leaves with their strong four-toothed mandibles.

"The bee burrows a hole in the ground or in decaying wood, forming a tunnel in which to place the cells; it then flies away to the neighboring rose bushes, and, selecting a leaf, cuts a portion from it, which it carefully rolls up and flies off with to the burrow. This maneuver is repeated several times until ten or twelve pieces have been cut; the bee then enters the tunnel, and begins to twist and fold the leaves, making them fit together into a sort of funnel-shaped cone, something like a thimble. So perfectly are these cells constructed that they may be removed from the burrow without falling to pieces, although the leaves of which they are made are neither sewn nor gummed together.

"As soon as the cell is finished, the bee proceeds to make a cake of honey and pollen, on which the future inhabitant will live. It then lays an egg beside the cake, and flies off to find another leaf wherewith to close the entrance of the cell.

"A circular piece is cut from a leaf, and the bee flies home with it, and so nicely has this little circle been cut that it exactly fits the opening, into which the bee pushes it, closing the cell completely. So that there may be no fear of any honey leaking out, the bee flies off again and cuts two more circular pieces from the rose bush, which it fixes securely over the first one. When this cell is finished a second is constructed which joins the first, so that eight or ten cells are usually to be found together in one burrow. When all is finished the leaf-cutter closes the perpendicular shaft leading to the burrow and flies away.

"The larva, when full grown, spins a silken cocoon within and united to the sides of the cell."

On passing Rutgers' College on his way to his first inauguration, President Lincoln remarked to a friend: "Ah! That is what I have always regretted—the want of a college education. Those who have it should thank God for it."

**New Grand Hotel**  
**EVERYTHING NEW**

Special Rates to M. A. C. Boys R. RENNER, Proprietor

BUY YOUR  
**Clothing, Hats, Caps and Furnishing Goods**

...OF...  
**H. Kositchek & Bros.**

113 WASHINGTON AVE. N.

**Microscopes for Sale!**

The Botanical Department has several compound microscopes for sale at a very low price. See or write

**W. J. BEAL.**

**...COLLEGE BUS...**

Leaves M. A. C. for Lansing at 8:30 a. m. and 1:30 p. m. Returning, leaves Lansing at 10:30 a. m. and 4:30 p. m.

Packages left at Emery's will receive prompt attention. Livery or Bus for picnics at reasonable rates.

NEW PHONE

**H. O. PALMER**

**How is This?**  
**.. SUITS ..**

MADE TO ORDER  
FOR **\$15.00 AND UP**

Come in and examine our goods and get prices. They will astonish you.

**Woodbury & Savage,**  
208 Washington Ave. South.

**GLASSES....**  
Fitted Free

**C. M. Dickson, M. D.**  
First Floor—Hollister Block

Phone 192

New Phone 76

**J. G. REUTTER**

322 Washington Ave. South

**Fresh AND Salt Meats**

FINE CHICAGO BEEF A SPECIALTY

We are Headquarters for all Kinds of Home-Made Sausage.

**LOWEST PRICES**

Will be quoted to

**SCHOOL**  
**... LIBRARIES ...**

And others sending lists of books wanted to

**Lansing Book & Paper Co.,**  
LANSING, MICH.

**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.**

The purest salt, and finest in quality and flavor. At all dealers in barrels (250 lbs.) and bags (56 lbs., 25 lbs. and 14 lbs.)  
DIAMOND CRYSTAL SALT CO., St. Clair, Mich.

**Take Examinations**

For Admission to  
The Michigan Agricultural College

**In Your Own County**

Examination questions will be sent to your County Commissioner of Schools in time for the Regular Examination of Teachers, March 25 and 26. . . . .  
By taking the examination now you will avoid all delay when you enter College. . . . .

The next College Year begins Sept. 13, 1897.

## ATHLETICS

Some of the boys are working a little on the mat.

A few baseball enthusiasts indulge daily in light practice in the armory.

Warren and Fisher are getting their pitching arms in condition. Both are in excellent form and will make this year's team strong in the box.

### Schedule of Base Ball Games.

Baseball Manager C. M. Krentel has arranged games for the coming season as follows:

Saturday, April 17, M. A. C. at Albion.

Saturday, April 24, Albion at M. A. C.

Saturday, May 1, M. A. C. at Kalamazoo.

Monday, May 3, Hillsdale at M. A. C.

Saturday, May 8, M. A. C. at Olivet.

Saturday, May 15, Kalamazoo at M. A. C.

Saturday, May 22, M. A. C. at Hillsdale.

Monday, May 31, Olivet at M. A. C.

Saturday, May 29, is as yet an open date. It will be noticed that Mr. Krentel has arranged so that every other game will be played on home grounds, thus giving local patrons of the game an opportunity to know what progress the team is making.

### Meeting of M. I. A. A. Directors.

A meeting of the M. I. A. A. directors was held at the Hibbard House in Jackson last Friday evening, and the following officers were elected: President, F. E. Dunster, Albion; first vice president, H. L. Becker, M. A. C.; second vice president, H. C. Jackson, Kalamazoo; secretary, H. D. Leonard, Olivet; treasurer, H. T. McDonald, Ypsilanti.

The next field day will be held June 3, 4 and 5, but the place has not yet been decided upon. Albion, Kalamazoo, Ypsilanti and Hillsdale are all working for it.

A proposition was brought up to play the baseball games on the percentage plan, and a committee composed of Bowen, Jackson and Leonard was appointed to arrange a schedule of games. McDonaldson of Hillsdale will try to revise the program of sports in such a way as to allow those contesting for the all-round medal longer rests between events. A one-mile tandem race has been added to the list of sports.

One of the most hopeful signs to the lovers of pure athletics is the growing sentiment against professionalism. W. P. Bowen of Albion made a strong speech against professionalism; and H. C. Jackson of Kalamazoo gave notice of an amendment providing that the president of each college must certify that the members entering the contests from his college have attended the college and classes for twenty weeks previous to the holding of the field day sports. This amendment will be acted upon at the next meeting of the directors, which will be held in Jackson, March 20.

### Stars of the "Great Dipper."

According to Miss Mary Proctor, the seven stars in the constellation known as the "Great Dipper" are in reality seven magnificent suns, probably very much larger than our own sun and glowing with intense luster. Iron, sodium, magnesium and other well-known elements are present in the atmos-

pheres of these stars, and their massive globes whirl through the depths of space with inconceivable velocity. Five of the stars are receding from us at the rate of 17 miles in a second of time, and the other two are traveling in an opposite direction. Thirty-six thousand years from now the seven stars of the dipper will have dissolved partnership, and its appearance will have entirely changed.—*Chicago Tribune*.

### Judgment.

He entered the editor's sanctum  
And vented his views unsought,  
And next day was hanged as a bandit  
For wrecking a train of thought.  
—*Ex.*

### What the Wild Waves Said.

Do you hear the ocean moaning,  
Ever moaning sad and low?  
'Tis because that fat old bather  
Stepped upon its undertow.  
—*University Herald*.

### New Version.

She was walking with my rival,  
As they chanced to homeward roam,  
It was from my garret window  
I was seeing Nellie home.  
—*Ex.*

Senior—Do you know that they have a kind of money in Oklahoma three pieces of which make a dollar?  
Soph.—No. What is each piece worth, thirty-three and a third cents?  
Senior—No. One piece is worth fifty cents, the other two are worth twenty-five cents a piece.—*Ex.*

The difference between printing and publishing was aptly defined by a young lady who said to her lover: "You may print a kiss on my cheek, but you must not publish it." With that he locked the fair form in his arms and went to press.—*Moderator*.

A gentleman stepped into a new book store recently and asked the advance clerk for a copy of Ouida's Bebe. The A. C. turned and called to his chief, "Have we a copy of the Widow's Baby?" And the customer brained him with a sheet of music.—*Ex.*

There was a young lady and what do you think?  
She lived upon nothing but fountain-pen ink.  
A great flow of language this beverage gave her,  
But the doctors, alas! could do nothing to save her.  
—*Ex.*

Young man: "I was thinking how much I resemble your carpet—always at your feet."

Young lady: "Yes, you do resemble my carpet a good deal—I am going to shake it real soon."—*Ex.*

### Horticultural.

Are you in want of vegetable or flower seeds, plants or bulbs, shrubs or roses, grape vines or small fruits, fruit or ornamental trees? If so, the Storrs & Harrison Company, Painesville, Ohio, will be pleased to send you their valuable catalogue free. It is one of the most comprehensive issued. They were among the first to introduce the free delivery of plants, seeds, small trees, etc., through the mail nearly a quarter of a century ago, and their business through honest dealings has grown to be one of the largest in the United States. They advertise in our columns and are worthy of patronage. Your address on a postal will bring you their catalogue free.

### Official Directory.

Sunday Chapel Service—Preaching at 2:30 p. m.

Y. M. C. A.—Holds regular meetings every Thursday evening at 6:30 and Sunday evenings at 7:30. S. H. Fulton, President. C. W. Loomis, Cor. Secretary.

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.

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 every Monday evening 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. C. 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. A. E. Wallace, 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.

Club Boarding Association—I. L. Simmons, President. H. A. Dibble, Secretary.

Try and Trust Circle of King's Daughters—Meets every alternate Wednesday. Mrs. C. L. Weil, President. Mrs. J. L. Snyder, Secretary.

## M. A. C.

SPECIAL RATES ON  
PHOTOS AT

SHARPSTEEN'S STUDIO.

...My...

## Neckwear Stock

Contains all the Latest  
Ideas as to

SHAPE, COLOR AND PATTERN

and the price lower than  
ever before. Would be  
pleased to have you come  
in and see it.

BEFORE PURCHASING YOUR FALL  
AND WINTER

## HAT

Allow me to show you  
some natty "Up to Date"  
styles. Nothing but reliable  
qualities find place in  
my stock.

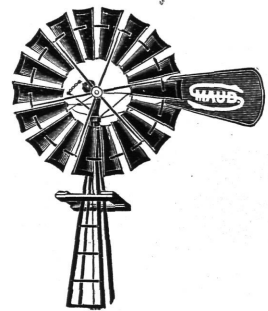
STUDENT'S PATRONAGE SOLICITED.

## ELGIN MIFFLIN

THE OUTFITTER.

## The MAUD S

WIND MILL AND  
PUMP COMPANY,



Manufacturers  
of

CYCLONE PROOF  
GALVANIZED  
STEEL WIND  
MILLS AND

"MAUD S"  
PUMPS,

Lansing, Mich

## THE MICHIGAN SUPPLY COMPANY

WHOLESALE DEALER IN

Belting, Hose, Iron Pipe and Fittings, Tubular Well Supplies, etc.

STATE AGENT FOR

MAUD S PUMPS, LANSING, MICHIGAN

BUY DIRECT and pay but one profit. Our assortment is one of the best and most complete in

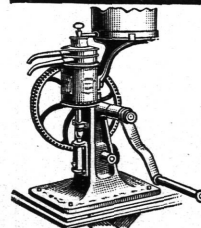
Fruit and Ornamental Trees, Shrubs,  
Plants, Roses, Vines, Bulbs, Seeds.

Rarest new, choicest old. Send for our catalogue today; it tells it all; an elegant book, 168 pages, magazine size, profusely illustrated, free.

Seeds, Plants, Bulbs, Small Trees, etc. by mail post-paid, safe arrival and satisfaction guaranteed, larger by express or freight. 43d Year. 32 Greenhouses. 1,000 Acres.

THE STORRS & HARRISON CO., Box 456, Painesville, O.

## HAVE YOU FIVE OR MORE COWS?



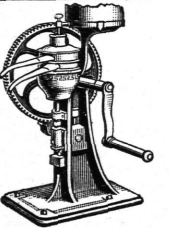
If so a "Baby" Cream Separator will earn its cost for you every year. Why continue an inferior system another year at so great a loss? Dairying is now the only profitable feature of Agriculture. Properly conducted it always pays well, and must pay you. You need a Separator, and you need the BEST,—the "Baby." All styles and capacities. Prices, \$75 upward. Send for new 1894 Catalogue.

THE DE LAVAL SEPARATOR CO.,

GENERAL OFFICES:

74 CORTLANDT

NEW YORK.



News from Graduates and Students.

W. G. Merritt, with '93, visited the College Saturday.

H. M. Howe will attend the military hop next Friday evening, and will visit friends at M. A. C. over Sunday.

A. F. Gordon, '91, is a papa. So say the Saturday night papers: "Born, to Mr. and Mrs. A. F. Gordon, Grand Rapids, this morning, a daughter."

A writer in the last Moderator gives unstinted praise to the work of E. P. Clark, '83, as commissioner of schools in Berrien county during the past four years.

A. M. Meyers, with '93m, has purchased the Homer Vidette, moved to Homer, and will hereafter issue both the Vidette and the Litchfield Record from the Homer office.

Prof. G. L. Teller, '88, writes from Fayetteville, Ark.: "Little Irene is only three weeks old now, but she may come to M. A. C. for a course in Domestic Economy in time."

Prof. James Satterlee, '69, was at the College Saturday. He, with his family, has been spending the winter in Lansing, working on a thesis on "Nut-Bearing Trees," but will return to his farm near Greenville in about a week.

W. A. Anson, with '95m, is not traveling for the Elliott Button Fastener Co., as was announced in a recent number of THE RECORD. His connection with the company is in the capacity of assistant manager, and his trip south was merely on special business.

Dr. T. D. Hinebaugh, '85, professor of veterinary science in the North Dakota Agricultural College and State veterinarian, dropped in on us rather unexpectedly last Friday morning. He was on his way to visit his old home at Vicksburg. He says they have had a mild winter in North Dakota; the thermometer has not been lower than 34 degrees below zero, and was only 10 degrees below at the time of his departure.

A sentiment like the following, expressed by L. A. Bregger, '88, to a friend, is a gratifying appreciation of the M. A. C. triennial alumni meeting: "June is a much harder month for me to get off than August, but it will have to be something pretty serious that will keep me away from the M. A. C. triennial. I can work harder and better for the rest of the year for one good time such as we always have when we go back to the 'old home.'"

What Some Former Students Think of M. A. C.

"It is an institution of which the state may well be proud." -Edward A. Tracy, '72.

"Am always proud of Michigan's Agricultural College and glad that I spent even one year there." -A. T. Daniels, with '74.

"I think that any young man with ambition can make a good start in life at our Agricultural College." -John Galloway, with '75.

"I always considered it my great misfortune that I had to leave the College without completing the course." -William Thum, with '84.

"Have three boys and wish every one of them might graduate from the Michigan State Agricultural." -Amos E. Wood, with '77.

"I have always kept the Agricultural College in view and regret very much my inability to longer attend." -Calvin Wilcox, with '60.

"I am always glad to hear from the College and shall always be pleased to do what I can for its achievement." -Arthur Merchant, with '91.

"Will be very glad to write as often as once a year as I have always felt a deep interest in the success of the college." -Henry S. Hackstoff, with '82.

"My stay at the College though not long created a desire to know the why of farming. \* \* \* Long live the M. A. C." -E. A. Haven, with '83.

"I have tried to impress on the minds of different young men that M. A. C. is one of the best schools in the state." -C. D. Beecher, '89.

"Have always had a warm corner in my heart for the Agricultural College and am rejoiced to hear of her prosperity." -M. C. Skinner, with '60.

"M. A. C. forever! May she ever prosper. May its friends be loyal and firm ones. May its enemies be just and honorable ones." -Robert M. Kedzie, with '93.

"Although I seldom hear from the College I still retain an interest in old M. A. C., and can truly say that I rejoice at her growth." LaFoy G. Barber, with '91.

"Some of my happiest days were spent at the old College and I wish it that continued prosperity and success which it so well merits." -Geo. E. Lawson, with '82.

"Be assured my remembrance of the College, though I attended it in the darkest hours of the civil war, is like a dream of yesternight. \* \* \* It has become more than a brick wall in the midst of oak stumps. It is a force far and near." -Geo. E. Steele, with '67.

Board of Agriculture.

- Hon. Franklin Wells, President..... Constantine.
Hon. Chas. W. Garfield. Grand Rapids.
Hon. Chas. F. Moore.....St. Clair.
Hon. C. J. Monroe.....South Haven.
Hon. T. F. Marston....West Bay City.
Hon. A. C. Bird.....Highland.
Gov. Hazen S. Pingree.....Ex Officio
The President of the College..Ex Officio
Hon. I. H. Butterfield, Secy... Mich. Agr. College.

Faculty and Other Officers.

- J. L. SNYDER, A. M., Ph. D., President.
ROBERT C. KEDZIE, M. A., M. D., Professor of Chemistry, and Curator of the Chemical Laboratory.
WILLIAM J. BEAL, M. S., Ph. D., Professor of Botany and Forestry, and Curator of the Botanical Museum.
E. A. A. GRANGE, V. S., Professor of Veterinary Science.
LEVI R. TAFT, M. S., Professor of Horticulture and Landscape Gardening, and Superintendent of the Horticultural Department.
HOWARD EDWARDS, M. A., LL. D., Professor of English Literature and Modern Languages.
HERMAN K. VEDDER, C. E., Professor of Mathematics and Civil Engineering.
HARRY H. BANDHOLTZ, 2d Lieut. 6th Inf., U. S. A., Professor of Military Sciences and Tactics.
I. H. BUTTERFIELD, Secretary.
CLINTON D. SMITH, M. S., Professor of Practical Agriculture, and Superintendent of the Farm.

CHAS. L. WEIL, S. B., Professor of Mechanical Engineering and Director of the Mechanical Department.

WALTER B. BARROWS, S. B., Professor of Zoology and Physiology, and Curator of the General Museum.

FRANK S. KEDZIE, M. S., Adjunct Professor of Chemistry. WILLIAM S. HOLDSWORTH, M. S., Assistant Professor of Drawing. PHILIP B. WOODWORTH, B. S., M. E.

Assistant Professor of Physics. ALVIN B. NOBLE, B. Ph., Assistant Professor of English Literature and Modern Languages.

CHARLES F. WHEELER, B. S., Assistant Professor of Botany. WILBUR O. HEDRICK, M. S., Assistant Professor of History and Political Economy.

WARREN BABCOCK, Jr., B. S., Assistant Professor of Mathematics. EDITH F. McDERMOTT, Professor of Domestic Economy and Household Science.

MRS. LINDA E. LANDON, Librarian. H. W. MUMFORD, B. S., Assistant Professor of Agriculture.

RUFUS H. PETTIT, B. S. A., Instructor in Zoology. A. L. WESTCOTT, B. M. E., Instructor in Mechanical Engineering.

DICK J. CROSBY, B. S., Instructor in English. MERRITT W. FULTON, B. S., Instructor in Agriculture.

BURTON O. LONGYEAR, Instructor in Botany. CYRUS C. PASHBY, B. S., Instructor in Mathematics.

GORDON H. TRUE, B. S., Instructor in Dairying. CHARLES E. MARSHALL, Ph. B., Instructor in Bacteriology.

H. E. SMITH, B. S., Instructor in Mechanical Engineering. K. L. BUTTERFIELD, B. S., Supt. Farmers' Institutes and College Field Agent.

D. B. BALDWIN, Engineer. THOMAS GUNSON, Foreman of Greenhouse.

F. C. KENNEY, Assistant Secretary. ERNEST WITTSTOCK, Foreman of the Farm.

W. S. LEONARD, Foreman of Machine Shop. THOMAS DURKIN, Foreman of the Horticultural Department.

CHARLES E. HOYT, Foreman of the Wood Shops and Foundry. E. S. GOOD, Clerk to President.

CHACE NEWMAN, Clerk of Mechanical Department.

Station Council.

- Clinton D. Smith, M. S..... Director and Agriculturist.
Jonathan L. Snyder, Ph. D., Pres..... Ex Officio.
L. R. Taft, M. S.....Horticulturist
Robert C. Kedzie, M. A., M. D..... Chemist.
Ira H. Butterfield, ..... Secretary and Treasurer.

Advisory and Assistant Staff.

- A. A. Crozier, M. S..... Assistant in Agriculture.
Herbert W. Mumford, B. S..... Assistant in Agriculture.
H. P. Gladden, B. S..... Assistant in Horticulture.
M. L. Dean, Assistant in Horticulture.
Thorn Smith, B. S..... Assistant in Chemistry.

- E. A. A. Grange, V. S..... Consulting Veterinarian.
W. B. Barrows, S. B..... Consulting Zoologist.
R. H. Pettit.. Assistant in Entomology.
Chas. F. Wheeler, B. S..... Botanist.
Mrs. L. E. Landon..... Librarian.
T. T. Lyon, So. Haven..... In charge of Sub-Station.
R. L. Taylor, Lapeer..... In charge of Apiary.

Sub Stations.

- Grayling, Crawford county, 80 acres deeded.
South Haven, Van Buren county, 10 acres rented; 5 acres deeded.

The Farm Home Reading Circle

OF THE

MICHIGAN STATE AGRICULTURAL COLLEGE.

THE AIM OF THE FARM HOME READING CIRCLE

The fundamental purpose of the Agricultural College is to educate farmers' sons and daughters toward the farm and not away from it. She is doing this and in addition is making it possible for those who cannot afford a college course to become posted on agricultural topics through the Farm Home Reading Circle. One of the objects of the Farm Home Reading Circle is to recommend the best books for the farmer, gardener and stock breeder to read, and at the same time to furnish an opportunity for the farmer to buy those books at greatly reduced prices.

The course of reading outlined has been prepared by men who are authority in their special lines. The books offered in the course are thought to be as good as can be secured at a reasonable figure.

The privileges of the Farm Home Reading Circle are not limited as to age or occupation. Anyone who is a resident of Michigan may become a member. One of the most commendable features of this course of reading is that you can read alone.

You do not have to organize a society.

MEMBERSHIP COSTS NOTHING.

ADVANTAGES TO MEMBERS OF THE FARM HOME READING CIRCLE.

- 1. An opportunity to pursue a systematic course of reading under the direction and with the aid of all departments of the Michigan Agricultural College.
2. The publications of the Michigan State Experiment Station are mailed free to members of the Farm Home Reading Circle.
3. You can secure standard books at greatly reduced rates.
4. You not only secure the benefit yourself, but you get a certificate on the completion of each book which cannot fail to be a source of satisfaction to you.
5. You can receive a prompt answer to any question in regard to farm topics by applying to the college through the Secretary of the Farm Home Reading Circle.

Full information in regard to how to join and the different courses offered will be furnished promptly upon application to the secretary,

HERBERT W. MUMFORD, Agricultural College, Mich.

# THE TIME

To get an education is now, while you are young and strong, while your mind is receptive, your memory retentive.

**NOW** will never come again; and altho' there may be difficulties in the way, they are not likely to become less formidable if you go plodding on without preparation for your life's work.



# THE PLACE

TO GET AN EDUCATION is where you can get thorough training along practical lines.

Life is too short to spend much time in weaving fanciful theories. **FOR THE YOUNG MAN** who is ambitious to become a useful American citizen, strong and self-reliant, or **THE YOUNG WOMAN** who would prepare herself to wisely conduct the affairs of a home—and there are no higher ambitions—there can be no better place than at

## ...The Michigan Agricultural College.

### The Fame of Our College Has Gone Abroad

Our last Catalog shows that WE HAVE STUDENTS FROM JAPAN, SIBERIA, SWEDEN, SCOTLAND, ENGLAND, ARMENIA, QUEBEC, ONTARIO, NOVA SCOTIA, ELEVEN STATES AND THE DISTRICT OF COLUMBIA IN OUR COUNTRY, BESIDES FORTY-NINE COUNTIES IN MICHIGAN.

We number among our post-graduate students, men and women from the University of Michigan, Amherst, Oberlin, Olivet, The State Normal, and many other institutions of learning.

But our most laudable pride is in the work our graduates are doing—they occupy positions of honor and trust in all the walks of life, and their work is a proud monument to the training received here.

### WE HAVE THREE COURSES

The **AGRICULTURAL COURSE**

The **MECHANICAL COURSE**

and The **WOMEN'S COURSE**

If you wish to know more about these courses you can get our catalog by writing to

President **J. L. SNYDER,**  
AGRICULTURAL COLLEGE, MICH.