Natural History Society.

An interesting program was presented at the meeting of the Natural History Society last Friday evening. Professor Barrows spoke of the additions to the museum and exhibited a large tank and tooth of a mammoth which were found in Berrien county. He said the absence of the raven in south Michigan is due to the presence of the crow. No raven has been seen south of Saginaw for twenty-five years.

Mr. Longyear gave a talk on parallel fungi and their methods of spore distribution. Some fungi have a very offensive odor which attracts flies and thus accomplishes the work of scattering spores.

Mr. Harlow gave an interesting outline of the work of the zoology class, in which he spoke of the nature and cause of the chalk cliffs of England.

Plan for Choosing Our Orator for the Intercollegiate Oratorical Contest.

Several mass-meetings of the fac­ulty and students have been held recently to formulate a plan for choosing our representative to the Intercollegiate Oratorical Contest which will be held in Albion next May. From the first a local preliminary contest seemed the best plan, the only question being how to conduct this contest so as to get the best man. It was finally decided that any student in College taking the amount of work required by the rules of the Intercollegiate Association may be a participant in the preliminary contest. If an orator in the Intercollegiate contest does not take part in this contest, he must signify his intention before the Intercollegiate contest occurs.

In this preliminary contest the candidates will give their orations in the chapel, beginning immediately after the Intercollegiate contest, and continuing with one oration each morning until all have spoken. The number of candidates will be narrowed to three by a popular vote in which each student and each member of the faculty shall be entitled to vote. The regulations governing this ballot, and the subsequent choosing of our representative are as follows:

1. The vote shall take place on the day after the last contestant has spoken.

2. Each ballot shall contain three names, and a statement that the vote is to be cast for the candidate who shall be chosen by the executive committee one week before the Intercollegiate contest.

3. No person whose oration receives the highest marking from the judges shall be the representative.

4. The management of the local contest will be in the hands of an executive committee, which shall consist of the chairman of which shall be the College representative in the Intercollegiate Association. This committee consists of Dr. Howard Edwards, chairman, Mr. D. A. Sleeley and Miss Lucy E. Monroe.

The Horticultural Department.

The department has received from Governor Pingree a number of potatoes obtained during his recent trip to Venezuela. They are of medium size, about twice as long as broad and somewhat flattened. The eyes are said to be very good to eat. They will be tested in the garden and some more, which will be added as the year progresses.

The fruit-house is now complete. The last work was the construction of the roof, in which both the type of fruit are to be stored in the show room. They are seventy-eight in number and are arranged about the show room. The trays are three feet long and fifteen inches wide; one-half of them are six and the others four inches deep. They will be divided by cross partitions into either two or three ports so that each will hold about twenty varieties. Space remains for nearly as many more, which will be added as necessity requires.

The chrysanthemums in the forcing houses are beginning to show flowers. Most of them are planted in the benches and are being treated as single stems. In most cases each plant is allowed to produce but a single flower, although in others from three to five have been left.

In the east bench of the east house there are some twenty-five new varieties which have not been grown here before. The earliest is Midge, with a flower about six inches across. The next, F. Bergman and Glim of the Pacific but little behind. The plants in the center benches of both houses are given about sixty standard sorts and are being used in a fertilizing test. The soil upon the east half of the benches was enriched with stable manure, and for the past two months this has received an application of liquid manure twice each week. The other halves of the beds have been fertilized in a similar manner with chemical fertilizers. Various composts of wood ash, bone, nitrate of potash, phosphate of ammonia, etc., are being tried. It is not expected that any differences would be noticed in the growth of the plants, but it was hoped that the two halves would produce a healthier foliage above all that, the florets would be of a thicker texture than when grown with stable manure.

The other beds in the forcing houses are filled with lettuce, radishes, and cabbages. Most of these will also be used for fertilizer tests. The apple crop will amount to about 500 bushels, nearly all North. A few of the trees bore more than half a crop. The flower beds have been cleaned up and are now being planted with bulbs for spring flowering. Part of the bulbs were obtained directly from our florists in Holland, the others were purchased of an American dealer. Those imported direct were somewhat larger and, even after the expense of importing was paid, they were about twenty-five per cent cheaper.

Electric Light Contract Let.

The Capital Electrical Engineering Company, of Lansing, has been awarded the contract for the secondary wiring on the College electric-lighting plant. This company will begin at the Harrison House and put up a pole line across the campus, which will be four runs of wire to connect with the present College system. The Harrison House will be completely wired, and have a special transformer.

The contract provides that the company shall overhaul the present College line and put it in the best possible condition. It also provides for the erection of all transformers, lamps of all laboratories, class­rooms, work-rooms, the trays in which the varieties of the bulbs were obtained directly from the nurseryman. They are of medium size, about twenty-five per cent cheaper.

Each house will be furnished with a number of new electric fixtures, with the understanding that if the occupant desires more elaborate fixtures he can have them by paying the difference. Twenty lamps is the regular allowance for each residence.

There will be one main service switch for each house, which will control all lights in that house. In addition there will be a snap switch at the head of each basement stairway. It is designed that for the present at least the occupant of a residence shall have the care of the campus light in his immediate vicinity. That is, the lights in the hall, one on the porch and one campus light within 200 feet of the residence, will be controlled by a snap switch in the hall.

The Capital Electrical Engineering Company put a force of men at the line today, and will push the work to completion as rapidly as possible.

A contract has been closed with A. P. Piatt to furnish power for the running of the plant. The College dynamo, which will be furnished by the Capital Electrical Engineering Company, will be installed at Mr. Piatt’s power house, at the foot of Logan street.

A new line will be erected by the Capital Electrical Engineer­ing Company to furnish power for the erection of all transformers, with the understanding that the Capital Electrical Company shall overhaul the present College line and put it in the best possible condition.

The Capital Electrical Engineer­ing Company will erect a pole line and necessary wires to connect with the line erected by the Capital Electrical Engineering Company at the Har­rison House. The hours of service will be regulated by the College authorities.

Football—M. A. C. at Olivet.

M. A. C. and Olivet engaged in a very spirited game of football on the Olivet College athletic field about 2 o’clock p.m. on Sunday. Both elevens showed improved team work in their game, and the game was much more sportsmanlike than either played two weeks before.

Olivet kicked off and soon after held them for downs when only 2½ yards from the goal line, and then by steady work carried the ball the length of the field for a touchdown. Before the first touch down, Russell, the only man on our team who can kick goal with certainty, while going down the field with the ball at a terrific pace, was tackled in a way that both men were disabled. Aided by Fuller’s run for 35 yards, Oliver scored a touchdown goal, and then M. A. C. put the ball over and Brainerd kicked goal, making the score 10 to 6 in our favor for the first half.

In the second half Olivet scored two touchdowns and two field goals, and M. A. C. secured two field goals, but no goals, making the final score 18 to 18.

Most of the old players in the M. A. C. line were playing out of position in order that new material might be tried, and the line is stronger than that of a week ago and it is evidently not so strong as it usually is, but the players have accustomed to their new positions.

The Olivet correspondent for the Free Press is evidently some irre­sponsible on a fellow who is not aware of the friendly relations that have always existed between Olivet and M. A. C. Otherwise he would not court the displeasure of both institutions by such glaring allusions to Woodhew’s steal of a ‘touch down’ or the demoralized condition of the M. A. C. players at the end of the game, when it was plainly evident that the M. A. C. line was prevented from securing another touch down and the game, only by the mistake of the Olivet line-up.

Institutes for December.

County. Place. Name. Date.

Midland, Lapeer, Gladens, Gladis, Ogemaw, West Branch, Osceola, Mio, 12-3-97

Muskegon, Big Rock, Osceola, Vanderhiilt, Chippewa, Pickford, 12-15-97

Montmorency, LeRoy, Otsego, Otsego, 12-17-97

Manistee, Onekama, Chippewa, Gladis, 12-18-97

Benzie, Frankfort, Manistee, Onekama, 12-20-97

Ottawa, Vanderbilt, Charlevoix, Chippewa, 12-22-97

Presque Isle, Onaway, Chippewa, 12-24-97

Pike, Chocolay, Marquette, 12-25-97

Houghton, Lake Linden, 12-26-97

Iron, Escanaba, 12-29-97

Cheboygan, Mt. Pleasant, 12-30-97

Marquette, 12-31-97

Manistee, Onekama, 1-2-98

Benzie, Frankfort, 1-5-98

Ottawa, Vanderbilt, 1-7-98

Emmet, Petoskey, Charlevoix, 1-9-98

Charlevoix, Chippewa, 1-11-98

Mackinac, Lake City, 1-13-98

Mackinac, Island, 1-15-98

Kalkaska, Scripture, 1-17-98

Osceola, LeRoy, 1-19-98

Crawford, Ogemaw, 1-20-98

Missaukee, Lake Leelanau, 1-21-98

Lake, Big Rapids, 1-22-98

Newaygo, Ashland, 1-24-98

LANSING, MICHIGAN, TUESDAY, OCTOBER 19, 1897. No. 6.
Our Representative to the Inter Collegiate Oratorical Contest.

The plan agreed upon for selecting the representative of the College in the inter collegiate oratorical contest this year is this: A. T. Albinson, May, presupposes a general interest in such selection and a spirit of loyalty, in the interest of the College as a whole. There is in the hearts of our men when one person is selected for the College, and the other to the College as a whole. It is the best interest of the College to select by popular vote, the person who will take the College's place in the oratorical contest.

H. E.

Bird Life About M. A. C.

T. L. HANKINSON, COLUMBIAN LITERARY SOCIETY.

To a person interested in birds, our College campus and the surrounding region offers a rich field for study and observation. In the vicinity of the College we have an excellent opportunity of associating the interesting bird life of the woods, and to listen to the music of some of the most beautiful of nature's creatures, as the wood thrush, the Wilson's thrush, the scarlet tanager, the oven-bird, the towhee and others.

The Red Cedar River flowing along the south border of the campus, brings near to us a few of our interesting aquatic birds, such as the green heron, the spotted sandpiper, American cost, and occasionally the great black-backed gull, which is a common sight at the College.

In the fields of the College farm, among the bushes and bushes, we find rails, rallinules and coots, with bitterns and other marsh inhabitants, and in the deeper water during certain seasons of the year, we find a good number of ducks, mostly mallards. Among the reeds and cattails we find rails, gallinules and coots, and various other water-birds.

Perhaps the best place in this locality for birds, especially the water birds, is Chandler's marsh. This is a large area of low, level, uncultivated ground by the college bank, about two miles north of the College. A good deal of this ground is covered by bushes, but there are often pools and flooded places, about which we may find many shore birds, such as snipes, sandpipers, piper, American coot, and occasionally the great blue heron, black-crowned night heron, and possibly the red egret, the oven-bird, the towhee and others.

In the vicinity of the College give us an excellent opportunity of associating the interesting bird life of the woods, and to listen to the music of some of the most beautiful of nature's creatures, as the wood thrush, the Wilson's thrush, the scarlet tanager, the oven-bird, the towhee and others.

There is one drawback to this selection and a spirit of loyalty, in the interest of the College as a whole. It is the best interest of the College to select by popular vote, the person who will take the College's place in the oratorical contest.

H. E.

Report of Base Ball Manager.

The A. M. C. Record, October 19, 1897

A. Bullet Located by the X-Ray.

One day last week Dr. Shank telephoned the Physical Department that he had a patient in his large arm, but that the X-ray had failed to locate it. Would we try the X-rays? We assured the doctor that we were always waiting for such opportunities. The patient was seven years old, W. J. (Bill) Beck of Lansing. The bullet had entered the fleshly part of his leg several days before and was causing a great deal of pain. It was considered necessary toot twice its normal size, so arrangements were made immediately.

When Dr. Shank and the boy arrived the X-ray machine and photographic plates were all ready. A photographer's plate-holder was tied with the boy's leg and the X-ray tube operated for three minutes. In three minutes more the plate in the dark room gave positive evidence of the exact location of the bullet, which had gone one-half inch of the entire distance through the leg. Next the fluoroscope was used and the bullet located again. Willie enjoyed the experiment. When Dr. Shank said he saw the bullet, Willie turned to his father and said, "I want you to know I am too," and then moved next day without any trouble.

At the College.

Representative Kimmis called at the College Wednesday.

C. H. Hutton, '04, has been enter-

The farm crops are nearly all secured with the exception of the sugar beets.

Part of the cattle in the College herd are being tested for tuberculosis.

T. L. Hankinson spent a few days in Chicago, returning to the College yesterday.
The weather bureau has issued a small pamphlet, "Wind-Barometer Table," to assist persons who are not skilled in meteorology to form some notion of what the weather will be for a day. This pamphlet was prepared by Prof. Garriott, with the approval of W. L. Moore, Chief of Weather Bureau. The table of Prof. Garriott I have modified to suit the barometric conditions for central Michigan, and I have used his text without giving due credit beyond saying the credit of this paper is due to him.

In consequence of the great movements of air in our periodic winds, the influence of the earth's rotation in changing their direction, and the effect of local heat and moisture, there occur great depressions (low barometer) giving due credit beyond saying the credit of this paper is due to him. By Prof. Garriott, with the approval of W. L. Moore, Chief of Weather Bureau. The table of Prof. Garriott I have modified to suit the barometric conditions for central Michigan, and I have used his text without giving due credit beyond saying the credit of this paper is due to him.

The areas of high barometer are usually attended by settled, fair and cool weather, and low areas by unsettled, stormy and warm weather.

In weather calculations the barometer is the pulse, the wind is the function of heat. A consideration of these symptoms in their various phases constitutes a diagnosis of the weather changes in the near future. Rapid changes of the barometer indicate early and marked changes in the temperature will give fair weather; a stationary barometer indicates the continuance of the present weather.

In the following Wind-Barometer Table the height of the barometer is taken at 29 inches, which is nearly the mean-height for central Michigan. No other change of importance is made from Prof. Garriott's table.

Wind-Barometer Table.

<table>
<thead>
<tr>
<th>BAROMETER</th>
<th>DIRECTION OF WIND</th>
<th>CHARACTER OF WEATHER INDICATED</th>
</tr>
</thead>
<tbody>
<tr>
<td>29.00 or 29.20 and steady</td>
<td>Westerly.</td>
<td>Fair, with slight changes of temperature for one or two days.</td>
</tr>
<tr>
<td>29.00 or 29.20 and rising</td>
<td>Westerly.</td>
<td>Fair, followed within two days by warmer and rain.</td>
</tr>
<tr>
<td>29.00 or 29.20 and falling</td>
<td>E. to S.</td>
<td>Rain, with high wind, followed within two days by clearing, colder.</td>
</tr>
<tr>
<td>29.00 or above and falling rapidly</td>
<td>E. to S.</td>
<td>Clearing and colder.</td>
</tr>
<tr>
<td>29.00 or above and steadily</td>
<td>E. to S.</td>
<td>No early change.</td>
</tr>
<tr>
<td>29.00 or over and falling slowly</td>
<td>Variable.</td>
<td>Rain within 12 hours that will continue for a day or two.</td>
</tr>
<tr>
<td>29.00 or below and falling rapidly</td>
<td>N. to S.</td>
<td>Rain, with high wind, followed within two days by clearing, colder.</td>
</tr>
<tr>
<td>29.00 or below and rising</td>
<td>S. to W.</td>
<td>Clearing and colder within 12 hours.</td>
</tr>
<tr>
<td>28.80 or below and falling</td>
<td>S. to W.</td>
<td>Seven hours of wind and rain imminent.</td>
</tr>
<tr>
<td>28.80 or below and rapidly</td>
<td>N. to E.</td>
<td>Severe northeast gale and heavy rain or snow, followed in winter by cold wave, clearing and colder.</td>
</tr>
<tr>
<td>28.80 or below and rising rapidly</td>
<td>Going to W.</td>
<td>Severe northeast gale and heavy rain or snow, followed in winter by cold wave, clearing and colder.</td>
</tr>
</tbody>
</table>

In 1892 Malcolm Forbes paid $300,000 to Senator Stanford for the horse Arion, making it the most valuable equine ever known. The Lewis Institute in Chicago would like to secure the services of Mr. E. C. Hoyt as instructor in their wood-shops.

At the tea table, First Magnitude—"I weighed myself to-day, and I've lost five pounds in the last three weeks." Second Magnitude—"I've been losing like everything lately, too." Third Magnitude—"And I'm sure I've lost." Land lady—"I can't see what ails you people, unless you are like neighbor B.'s torn cat. They say it eats so much that it gets poor carrying the load around." And the stars of all magnitudes twinkled and disappeared in outer darkness

**Gymnasium Shoes.**

We have just received a good assortment of Gymnasium Shoes, cloth tops, rubber soles which we bought especially for our M. A. C. customers. Quality is excellent and prices very low.

The M. A. C. Shoe Store.

G. D. Woodbury.
News from Graduates and Students.

A. B. Cook, '95, Owosso, is visiting friends at M. A. C.

Leon J. Cole, with '98, has again taken up work at the college. He plans to graduate with '99.

E. M. O'Neil, with '92, and wife, of Detroit, visited the College Sunday.

Z. Veldhuis, with '97, is a practicing veterinary surgeon at Fremont, Michigan.

George J. Jenks, '80, is now "Pa Jenks." It's a boy, born last Friday.

A. H. Sissakian, with '98, is studying medicine at the North- western Medical College.

W. R. C. Smith, with '96, a brother of J. H. Smith, mentioned below is the manager of the western branch of the Emerson School of Expression.

He is the same old "hustler" characteristic college scenes — in all economies. He has just been traveling for the American Electrician in the south, was offered the position of business manager of the western office of that publication this fall. He declined the honor however, and has quits the road and returned to college, principal of the Roger's Park School.

H. E. VanNorman, '97, superintendent of the Moore Park Farm, Terre Haute, Indiana, writes: "I have a chemical laboratory in my old home near the college. He left for Ann Arbor Thursday to have his eyes examined. He is the same old "hustler" to recover the use of his eyes sufficiently to put it on the market short, to make it a souvenir of college life. His wanderings with photography is my hobby as it was his when he was a student. M. A. C. Mrs. W. J. Morse is also an enthusiastic devotee of the art. Our home in Morton Park is known as the house where they bide you to rest with pictures. I have a chemical laboratory in my house and am still pursuing the chemical studies, of which I learned the beginning at M. A. C."

Superintendent of Public Instruction, Jason E. Hammond, '56, is planning a thorough seven days' investigation of the rural schools of Michigan, with a view to publishing the results of the same in his next annual report. Personally he will investigate the condition of the schools, grounds, buildings, adornment of grounds and decoration of school rooms, school apparatus, libraries, qualification of teachers, graduation and promotion exercises, attendance, cost of maintenance, kind of books used, instrumentation by officers and patrons; and will also publish exterior and interior views of the poorest, medium and best schools in the counties visited.

To a Lone Robin Singing.

The north wind snaps the dodos down the tree
And sweeps through orchards bleak and bare,
But red-breast rocking to the gale
Sings lusty as the twilight falls, "Cheer up; cheer up; for spring is here."

"The earth lies locked in sleep, my bird,
The north wind bloweth cold,
A silly message thou dost bring;
"Cheer up; cheer up; the spring is here."

"Cheer up; cheer up; for spring is here."

To face the storm with a cheerful heart,
Sing on, blithe bird, thy song of hope,
God grant such loving trust
To a Lone Robin Singing*.

NOTE BOOKS, TABLETS, CLOTHING.

BOOTS AND SHOES.

W. R. C. Smith, with '96, Chicago, once owned a well-known "hustler" who patronize us.


W. MORSE, D. D. S.—Office hours, 11 to 1 A. M., and 2 to 4 p. m. 110 Allegan St. W.

DENTISTS.


DRUGGISTS

W. R. C. PHELPS, Proprietor. Furniture, Bicycles, Musical M. D.—Hours, 2 to 4 and 7 to 8 P. M.

R. G. W. COLEMAN.—Dentist. 103 Washington Avenue South.


THE VAN GORDER PALACE LAUND. 113 Michigan Avenue East.

LENDER DEALERS.

H. E. VANNARD.—Watchmaker, Jeweler and Apothecary. 311 Washington Avenue.

THE DRUGGISTS

THE M. A. C. RECORD.

OCTOBER 19, 1897

HOLLISTER BLOCK.

H. B. RILEY.—L, Dealer, Mill Street. See ad.

PHOTOGRAPHERS.

L. L. KLECKNER.—Photographer. 218 Washington Avenue N.

PHYSICIANS.

H. D. MILLS.—Office hours, 10 to 5. Room 2, Hollister Block, Room 2.

W. R. C. PHELPS, Proprietor. Furniture, Bicycles, Musical Merchants, Shoe Store, Washington Avenue and Oregon Street.

MUSIC AND MUSICAL INSTRUMENTS.

M. J. & B. M. BUCK, Proprietor. HEADQUARTERS FOR FINE CLOTHING.

THE NEW GRAND.—H. M. Ross, Proprietor, Special exhibit to students, Washington Avenue.

ERYNAM.—Grond St. South, 2 doors from Michigan Avenue. Low rates to students.

JEWELERS.

W. D. McCORD.—Wholesale and Retail. 309 309 Washington Avenue North.

R. DAVIS.—Jeweler and Banker. 309 309 Washington Avenue North.

R. A. PHELPS.—Watches, Clocks, Jewelery etc. 51 Washington Avenue.

J. N. MCENRIE.—Watches, Jewelery and Clocks. 511 Washington Avenue.

S. D. S. MILLER.—Jeweler and Banker. 511 Washington Avenue.

PILEA.—Practical Watchmaker and Jewelers, Repairing of Fine Watches & Speci-

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