

The M. A. C. RECORD.

MICHIGAN STATE AGRICULTURAL COLLEGE.

Vol. 9.

LANSING, MICHIGAN, TUESDAY, MAR. 1, 1904.

No. 23



MAJOR WILLIAM H. KELL.

Private Company "F" 1st Ohio Inf. from the 17th of April to 16th of August, 1861, and private company "I" 2d Ohio Infantry, and Company "E" 18th Ohio Inf., from 15 of September, 1862 to June 10th, 1865. 2nd Lieut. 2d U. S. Infantry Dec. 12, 1872. 1st Lieut. June 25, 1879. Capt. May 19, 1891. Retired with rank of Major Dec. 15, 1899.

Brevet 1st Lieut. for gallantry in action against Indians at Clear Creek, Mont., October 15 and 16, 1876. Regimental Adjutant 22d Infantry from Feb. 1st, 1887 to Feb. 9th, 1891. Acting Assist. Adjutant General 1st Brigade 2d Div. 5th Army Corps during the Cuban campaign. Recommended by a Board of Officers for Brevet Major for service at El Caney, Cuba, July 1st, 1898. Commanding 3d Battalion 22d Inf. during the Philippine campaign in 1899. Major Kell has taken charge of the military department at M. A. C. The student body and faculty bid him heartily welcome.

BASKETBALL.

Ypsilanti will be here next Saturday. The pedagogs are quite strong and have been doing a great deal of work lately to even up old scores. Haftenkamp, Schaefer, Gill, Tuttle and Balbach will be in the game for M. A. C. A good game can be expected.

BASKETBALL.

The crippled M. A. C. team wended its way towards Alma last Saturday. Haftenkamp, one of the star players and the best basket man in the team, was out of the game on account of injuries. Millar was also unable to play. While the new team played well, yet unity and accuracy were lacking. Combine with this the fact that Alma played in her own gymnasium and you have the cause of our defeat, the first time since M. A. C. has had a team. One of Alma's men displayed a degree of grit rarely observed. Early in the game he received a

very severe burn from the steam pipes but pluckily played out the game. Alma treated our boys royally and won fairly. The final score was 22 to 14.

The line-up:

ALMA.	M. A. C.
Jennings Forwards	Shaefer, Kratzenburg, Bauld, Balbach
Schenck Center	Gill
McCullum Guards	Tuttle, Marshall, Balbach, Hunt.

Alma, 22; M. A. C. 14—Baskets from the field—Kratzenburg 4, Schenck 2, McCullum 1, Jennings 1, Tuttle 2, Gill 1, Shaefer 1, Bauld 1, Balbach 1. Baskets from fouls—Jennings 4, Balbach 2. Officials—Fuller of Alma, and Millar of M. A. C.

BASE BALL SCHEDULE.

April 14, Detroit College at M. A. C.
 April 22, U. of M. at M. A. C.
 April 26, Albion at Albion.
 April 27, Kazoo at Kazoo.
 April 30, Detroit at M. A. C.
 May 4, Hillsdale at M. A. C.
 May 7, Alma at M. A. C.
 May 9, Olivet at M. A. C.
 May 14, Kazoo at M. A. C.
 May 20, U. of Wisconsin at M. A. C.
 May 21, Olivet at Olivet.
 May 26, Albion at M. A. C.
 May 28, Alma at Alma.
 May 30, Ypsilanti at M. A. C.

This has been approved by the athletic committee and will be submitted to the faculty.

NOTICE.

A recital will be given by the students of the music department in the Women's Building, on Friday evening, March 4, at 7:30. All are invited to attend. Those who have attended previous recitals will not miss this opportunity to listen to some high class music.

PROGRAM.

Dance Caprice, (Piano Duet)	<i>Nevin</i>
Misses Luther and Black,	
Shower of Pearls,	<i>Paul Wachs</i>
Miss Florence Liken.	
Under the Leaves,	<i>Francis Thome</i>
Miss Ora Luther.	
Song of the Bathers,	<i>Paul Wachs</i>
Miss Ethel Hume.	
Fifth Nocturne,	<i>Leybach</i>
Miss Mae Louise Reed.	
Waltz,	<i>Eduard Grige</i>
Chant National }	
Miss Myrtle Hayward.	
Fantasia for two Pianos, arranged by	<i>Czerny</i>
Misses Freyhofer and Mack.	

ALUMNI AT THE ROUND-UP.

Thomas F. Rogers with '75; C. C. Lillie, '84, H. M. Wells, '85, C. B. Collingwood, '85, F. R. Smith, '87, J. H. Brown with '87, C. B. Cook, '88, D. N. Stowell, '92, D. J. Crosby, '93, A. B. Cook, '93, G. J. Baker with '95, E. M. Hunt with '99, C. H. Hilton, '00, S. F. Gates, '03, J. G. Moore, '03, A. C. Digby, '03, E. O. Elmer, '03, Alice Hadley, '03, Edward Allis with '03, and W. F. Lamoreaux with '05. Perhaps there were others present but we do not know of them.

NOTICE.

Mr. D. Leigh Colvin, National President of the Inter-Collegiate Prohibition Association, will give in chapel Friday evening at 7:30 his lecture: "Good Citizenship the Opportunity." Everybody is cordially invited.

NOTICE.

Mr. L. E. Buell, state secretary of the Y. M. C. A. will address the union meeting of the Y. W. and Y. M. C. A. next Sunday evening, March 6. Mr. Buell is an interesting speaker and has a message to young people. Come out to hear him.

ORATORICAL CONTEST.

At the Seventh Annual Contest of the Michigan Oratorical League at Adrian next Friday evening the colleges will be represented as follows:

Adrian, "The Search for the North Pole, What it Means," Mary J. McCollum.
 Albion, "Tyranny or Tolerance," A. A. Lancaster.
 Alma, "Phillips Brooks," Fred J. Soule.
 Hillsdale, "Excellent Deeds the Supreme Life," Elizabeth Allen.
 Hope, "The Liberator of Protestantism," Jacob Pelgrim.
 Kalamazoo, "Robert Bruce," Geo. E. Lockhart.
 M. A. C., "Alexander Hamilton," Elva R. Davis.
 Ypsilanti, "Robert E. Lee," F. B. McKay.
 Olivet, "Zwingli," Jas. Lee Felton.

Y. M. C. A.

Mr. G. W. Nichols led the Thursday evening prayer meeting. Subject: "Our brother's burdens and our own." The discussion of the subject by Messrs. C. H. Oven and C. A. Reed were interesting and suggestive. The meeting was well attended.

Rev. French of the Central Methodist church, Lansing, conducted Sunday morning chapel services. The sermon was practical and was enjoyed by all.

Mr. Clarence Holmes, Supt. of the School for the Blind, gave a talk Sunday evening in chapel, before the union meeting of the Y. W. and Y. M. C. A.

The attendance was good and the address was interesting.

H. N. H.

TOTAL ATTENDANCE AT THE ROUND-UP.

Tuesday, 175—2 sessions.
 Wednesday, 1700—3 sessions.
 Thursday, 1660—3 sessions.
 Friday, 1100—3 sessions.
 This does not include the sessions of the State Dairymen's Association held in Lansing on Tuesday.

ALUMNI.

With '07.

Edna L. Morris, a member of the sub-freshman class last year and a special student last fall, died at her home in Mulliken, Thursday evening, Feb. 25. She was in school about four weeks last fall. She was a member of the Sororian society. Miss Tyler and Miss Keeney attended the funeral, which was held last Saturday at one o'clock. Miss Morris was of a gentle, lovable, quiet disposition and made many friends while at College. The College community extends its sympathy to the bereaved family.

With '05.

W. E. Piper was drafting for the American Blower Co. in Detroit, all summer and has given them such satisfaction that they sent him to New York, where he does all the drafting for the branch office. He intends to come back to M. A. C. next year, and has been improving his time by studying French and German in night school. He would be very glad to hear from his M. A. C. friends. His address is 258 Ryerson St., Brooklyn, New York.

"TIC" MINSTREL.

The Eclectic Society entertained its friends Saturday evening with a minstrel show. With very few exceptions those who received invitations were on hand and the rooms were well filled.

Many of the jokes and gags sprung by the end men were of a local character and caused considerable amusement. The songs were well received and encores were frequent.

Those who knew Mr. Shakespeare only through his literary works were agreeably surprised by his abilities as a Buck and Wing dancer.

Mr. Reed, assisted by Caesar Augustus White, gave a banjo duet of the kind that always calls for a repetition.

In their character sketch Messrs. Cavanaugh and Verran created fun and laughter and made quite a hit with their original songs.

Owing to difficulties in changing complexion Mr. Kimball failed to furnish his song in the Olio. Daniel Clay Cornblossom added considerable to the wisdom of the audience by an edifying stump speech.

The program closed with a farce entitled "Tricks." Several stars were discovered in the cast and they will doubtlessly be heard from some day on the stage.

Between the acts refreshments, which partook of the nature of souvenirs, were served by the ushers.

Mr. and Mrs. Reed acted as chaperones for the occasion.

THE M. A. C. RECORD.

PUBLISHED EVERY TUESDAY DURING THE COLLEGE YEAR BY THE MICHIGAN STATE AGRICULTURAL COLLEGE

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D. S. UPDEGRAFF, '07m.

Subscription, - - - 50 cents per year.

Remit by P. O. Money Order, Draft or Registered Letter. Do not send stamps.

Address all subscriptions and advertising matter to the College Secretary, Agricultural College, Mich. Address all contributions to the Managing Editor.

Business Office with Lawrence & Van Buren Printing Co., 122 Ottawa St. E., Lansing, Mich. Entered as second-class mail matter, Lansing, Mich.

This paper is occasionally sent to non subscribers. Such persons need have no hesitation about taking the paper from the post-office, for no charge will be made for it. The only way, however, to secure the paper regularly is to subscribe.

TUESDAY, MAR. 1, 1904.

ROUND-UP INSTITUTE.

The Ninth Annual Round-up has come and gone. The attendance was good at all the sessions and the interest was excellent. Prof. Taft was everywhere and kept things running very smoothly. All were more than pleased. Large crowds visited the different college buildings. Prof. Shaw judged stock every morning and it was sometimes difficult to accommodate those who attended on account of lack of room. Prof. Jeffery's corn judging, the demonstration exercises in the Women's Building and the work in the shops added interest to the regular program. The first session at the college was held on Tuesday afternoon. Hon. C. F. Moore presided. The afternoon was largely taken up with reports and suggestions. About 300 one and two-day institutes were held during the year and the attendance was slightly better than last year in spite of severe snow-blockades. An evening program of a general nature was favored. After the adjournment, Instructor L. G. Holbrook gave a demonstration lecture on the X-ray and wireless telegraphy at the physical laboratory.

Prof. Smith opened the program for Tuesday evening by giving his ideas on "The Ideal Institute Worker." The following qualifications were deemed essential: Good voice, good articulation, good presence, good health, good judgment, enthusiasm, a teacher, honesty, bright and witty, good sense, familiar with his work, use no notes and have no hobbies.

N. I. Moore pointed out the importance of advertising. Have programs ready early, publish them in the local papers, use posters and have them well distributed.

C. C. Lillie said that a program was for the purpose of entertaining or for instruction or for both. He claimed that local recitations, music, etc., should not be overdone. Present programs are too crowded. Fewer subjects and more thorough discussions were advocated.

Mrs. F. D. Saunders said that a woman's section should have music local papers and round table discussion. Program should never exceed two and one-half hours in length.

Mrs. Partch agreed with this. One of her remarks was, "We are all laborers or we are good for nothing."

L. W. Oviatt favored a story when it would explain a point. Charts and instruments were advised. A good illustration is worth much.

Hon. R. D. Graham presided at this session. He opposed the idea of paying institute secretaries and said that the best work was often done where there was no pay. In fact no wage system could be devised which would do justice. The work was of a public nature and must be done for the love of it. Any other basis will cause failure.

Hon. Fred M. Warner presided at the session on Wednesday morning. After the invocation by Rev. Bard, of Lansing, Pres. J. L. Snyder, in a few well selected remarks, bade all welcome to M. A. C. "Everything is yours, take what you want."

C. C. Lillie, '84, addressed the meeting on the "Dairy Herd and Its Care." He gave a brief history of dairy breeds, and said that each one should select his favorite breed, take care of it and improve it. Each individual cow should be tested. Determine the amount of milk and its quality. Test four consecutive milkings and secure a year's test, not 30 days. A cow should produce 350 to 400 pounds of butter per year. Weed out the poor cows. The sire should have a good pedigree and should be a good individual. The test of a sire is the quality of the heifers produced. Keep sires till they are 7 or 8 years old.

Dairy cows should be kept in comfortable, dry, well lighted and ventilated barns. They are sensitive to changes. Feed them liberally, raise the feed. Clover hay and ensilage are excellent. Raise some Canada peas and feed pea meal. This can be supplemented with bran or oil meal. Mr. Lillie is a very vigorous, clear speaker, and his remarks brought out a good discussion. N. P. Hull said that the dairy cows of Michigan were underfed. Rations should be balanced and palatable. Keep things neat and clean. In feeding a cow, a certain amount is necessary for the body, the next part must pay for the first, for itself and also produce a profit. The last part simply pays for itself, and the rest is all profit. Consequently feeding a cow up to her limit is of great importance and is the key to successful dairying.

Major H. E. Alvord, Chief of Dairy Division, U. S. Dept. of Agriculture, spoke on "Market Milk." He discouraged pasteurization and said that milk should be produced in such a condition that heat was unnecessary to kill the bacteria. Good location, good roads, a building good enough for the owner were deemed essential to successful dairying. The manager should be a man of experience and should have received some technical training.

Small Fruit was handled by W. W. Farnsworth, Pres. of the Ohio State Horticultural Society. The value of the different fruits, how to grow and harvest them, were carefully considered. Every farmer should raise enough for his own use. Raising them for profit demands expert labor and depends largely on the location.

Hon. C. B. Collingwood then gave the farmers an interesting address on law. The formation of

courts and the judicial system of the state were explained. Special laws for fruit-growers were discussed. The form of contracts and their interpretation were described. His advice was, "Keep out of the courts." Since Mr. Collingwood has been a successful attorney for many years, this counsel is well worth keeping. A volley of questions followed the address.

The master of the State Grange, George B. Horton, presided over the afternoon session on Wednesday. He dwelt on education in his opening remarks and spoke particularly of the influence of the grange, farmers' clubs and institutes.

The Industrial School for Boys rendered excellent music during the afternoon. The chorus was large, well drilled, and sang in perfect harmony. One cannot help but notice the order, exactness and efficiency with which these boys do everything. Their manner was gentlemanly and a degree of intelligence and alertness was expressed in their faces that is rarely observed in any other school. The chorus was heartily applauded and responded just as enthusiastically.

Dr. Marshall discussed Bacteria in milk. He had numerous samples of milk which were infected with different germs. The action on the milk was explained carefully. Pure milk requires much care and training. No revolution is advocated but simply an improvement. To one flask of milk there had been added 1-30 of an ounce of ice. The casein had been precipitated and the curd was being dissolved rapidly leaving nothing but a watery solution. The fact that pasteurization will kill a majority of the germs but will not destroy the product of the germs was pointed out. This explains why pasteurization does not always result satisfactorily. Bacteria getting into milk influence keeping qualities, aroma and also flavor of its products. Cleanliness was strongly advocated.

Prof. Shaw next explained the handling of the college herd. Methods of feeding were explained. Each cow is weighed every two weeks, a careful account of her feed is kept as well as the amount of milk produced and the per cent. of butter fat. The value of each cow is thus determined. Under ordinary conditions of care and feeding the following records were made:

Jersey, 10½ months, 7186 pounds of milk and 492 pounds of butter.

Brown Swiss, 10½ months, 10151 pounds of milk and 456 pounds of butter.

Short Horn, 10½ months, 456 pounds of butter.

Red Polled, 10½ months, 7444 pounds of milk and 343 pounds of butter.

A Guernsey produced 447 pounds of butter in the same time and a Holstein gave 1620 pounds of milk during last January which produced over 60 pounds of butter. The college herd contains all the prominent dairy and beef breeds. Improvements are being made constantly. The discussion of this paper was led by E. A. Croman who pointed out the evils resulting from frequent changes of managers. When you have a good man, stick to him.

Mr. B. Wermuth recited the quarrel scene between Brutus and Cassius. Although this was a classical subject, yet it was enjoyed by all. Progressive farmers are not confining their reading to purely agricultural subjects.

Some Dairy Economics was handled by Prof. C. D. Smith in his usual dramatic style. He emphasized the idea that the dairy form and pedigree of the animal should receive due consideration. The tests of efficiency are the scales, the Babcock test and the ability to produce a calf which shall be typical in every respect. The feeding of a balanced ration and growing the necessary protein on the farm were strongly advised. The temperature of a barn should not go above 45° and the herd should be exercised out doors. His advice was, keep more cows and fewer herds. The two-cow dairy produces nearly all the poor butter. Such a dairy cannot afford sanitary surroundings. Secure clean milk, advertise it and make people pay for it. The consumption of milk can be doubled by putting better milk in the market. Feed the cows after milking and remove the milk at once from the barn. The cows must be healthy and all visible dirt must be removed. Aeration is unnecessary in the care of pure milk. The discussion of this paper was general and many questions were asked and answered.

F. W. Robison, chemist of the experiment station, gave one of the most valuable talks of the institute on "Commercial Feeding Stuffs and Their Value." All the principal feeding stuffs were discussed, their value and cost compared as to protein content. Mr. Robison had prepared a large chart showing the content of about a dozen feeding stuffs. Bran is not only one of the cheapest, but one of the best. Surrounding states have laws regulating commercial feeds. Since Michigan has none, it has become the dumping ground of inferior material. Each sack should contain on the outside a

"WILSON'S SUGAR BOWL"

For Party Supplies, Table Decorations, and the daintiest of Confections, we are

HEADQUARTERS.

Come in and get a

Hot Coffee and Sandwich



guaranteed analysis, much on the plan of commercial fertilizers. This paper evoked a lively discussion. Many farmers saw that they had paid twice as much as a feed was worth in many instances. A resolution was passed unanimously to ask the next legislature to pass a law requiring the analysis of feeding stuffs by the College.

Major H. E. Alvord, of Washington, D. C., gave an illustrated lecture on "Dairying in France." Some interesting views were shown of the cattle, sheep, goats, dairy barns, creameries and cheese factories.

Hon. J. Hamilton, of the U. S. Dept. of Agriculture, spoke on "An Ideal Highway System." Hon. A. E. Palmer on Michigan Highways, and Hon. H. S. Earle on Cooperation in Highway Building. All these gentlemen agreed in the main points. Each developed his subject well. A good road is good in bad weather. The township should be the smallest unit in our system. Too many overseers with too many different ideas cause a useless expenditure of money and result in poor roads. The nation and the state should assist in building good roads. Otherwise poor communities will always have poor roads.

N. A. Clapp, president of the State Association of Farmers' Clubs, opened the meeting on Thursday forenoon. Corn and Its Products was the subject of an address by Prof. J. A. Jeffrey. Many samples of the various products were shown. 10,000,000 bushels of corn are yearly used for the production of corn oil. Corn starch, gluten meal, dextrin, glucose and glucose syrup were presented in their order. One factory uses 10,000 bushels of corn per day in the manufacture of syrup. The discussion was opened by Mr. Reynolds, of Owosso, who took up the practical side of the question. The subject of growing and selecting seed, how to store it and improve it were discussed. Mr. Reynolds has corn follow clover in the rotation and finds it excellent. The importance of good tillage was emphasized.

The sugar beet crop was handled by L. W. Oviatt and H. B. Cannon. It was advocated that beets should have a regular place in the rotation and that the keynote to success was—"Be on time." Methods of planting, thinning, harvesting and storing were described. The general opinion was that beets should not be allowed to freeze under any consideration. A covering of marsh hay and soil was advised in case they had to be stored. About 200 sq. in. were required for each beet in order to secure the best results with the least amount of labor. C. C. Lillie gave one of his characteristic and interesting discussions.

Cucumbers and how to grow them was the title of Mr. M. L. Dean's talk. Michigan is the largest producer of cucumbers of any state in the union. The soil must be well fertilized, well pulverized and must retain the spring moisture. Plenty of seed must be used to allow for the destruction of plants by worms and insects. The best methods of planting, weeding, picking and marketing were described. Messrs. Johnson and Ballinger led in the discussions, which were lively.

Robt. Gibbons, Editor of the *Farm and Live Stock Journal*, had charge of the afternoon session on Thursday. After a vocal solo by Miss Clara Palmer, Mr. Gibbons opened the meeting with a short ad-

drees on the importance of agriculture. He considered the production of beef of prime importance since no vegetarian nation had ever been able to successfully compete with a meat eating people. The American laborers are the best fed, clothed and housed workers in the world and are for that reason more efficient. Beef is one of their daily foods.

Hon. W. A. Harris was unavoidably absent and Hon. L. W. Watkins was ill with La grip. As a result, the discussions of the afternoon were more or less of an impromptu nature but none the less interesting. H. H. Hinds opened the regular work with a talk on economic feeding of steers. He considered the silo a good adjunct. Corn supplemented with a legume such as clover or alfalfa had proved the best feed in his experience. The alfalfa question was again thoroughly discussed. Some found it easy to grow, others difficult. Prof. Smith was non-committal, claiming that the station had not done enough work to warrant a definite conclusion.

Mr. J. H. Prost now rendered a fine clarinet solo which was enthusiastically received and encored. The care and feeding of sheep was next taken up. A well ventilated barn, cool and dry, pure water and lots of it, a quiet shepherd, good clover hay and corn and a feeding period of not over 60 days were considered the essentials. Ensilage was not favored. Pasture should be changed every two weeks in order to prevent certain parasitic diseases. A lively discussion followed.

Peter Vorheis, of Pontiac, said: The feeding of lambs in Michigan is becoming an important and generally a profitable industry, many more being fed than are bred and grown here, and the number of farmers who make lamb feeding a permanent branch of their annual operations is increasing.

As it is with other industries lamb feeding is not always rose colored, but taken one year with another with judicious management I think it will prove as profitable as any other branch of farming, although we may not be able to count all the profits in dollars and cents.

It affords an excellent home market for the hay and coarse grains raised upon the farm, and furnishes profitable employment during the winter months. Besides it is the means of enriching and keeping up the fertility of our farms from which we can harvest larger and better crops. For this last reason it is difficult to estimate definitely the profits resulting from a season's feeding. To be sure the man about to engage in lamb feeding has many things to consider if successful. First to be considered is the cost of production of the finished product. Upon this depends largely whether lamb feeding is a success or failure. The cost of lambs, value of hay and grain fed, freight, getting them from, and expense of getting to market as well as judicious feeding are all factors which have a bearing on the result. Like any other industry, it must be managed with business-like sagacity to insure success.

As alfalfa has not become (and perhaps never will be) our most reliable forage crop our main dependence is clover hay, and corn silage, and if we intend to make lamb feeding a part of our business we should so rotate our crops so as to have a good supply of this product to market in the condensed form of wool and mutton. Under these conditions the

method or practice of buying western lambs of light weight about the time you wish to put them in the feeding shed, and if your rough feed is sufficient to allow it, it has proven good policy to select lambs carrying a good fleece of wool and when the latter is in good demand better results are obtained by shearing the lambs from three to six weeks before putting them on the market. This should certainly be done if they are to be carried until April or May and especially if infested with ticks.

With this method it would be best to start in with about one-fourth pound corn per head twice a day, increasing gradually until the last month or six weeks when they should get all the grain they will clean up. Sometimes other grain than corn can be fed to advantage. Have known of rye being fed for exclusive ration and better prices realized for it than if sold in the market. Sometimes oats can be fed in connection with corn to good advantage in order to balance up the ration, especially if obliged to feed hay that is mostly timothy.

It is necessary that good clean water should be where they can get it at all times and almost as necessary that a part of the ration be of a succulent nature, such as roots or silage. Have had best success in different methods practiced, by feeding grain (mostly corn) and silage in morning, a little bright straw at noon, corn and clover hay at night, and as long as the price of beef and mutton stand in the present ratio would prefer to sell the forage and coarse grains grown on the farm to the animal with the golden hoof and think the time is coming when we can fill our feeding pens with lambs grown on the cheap lands of northern Michigan.

N. A. Clapp, of South Lyon, discussed profitable pork production. He said that the hog had lifted more mortgages and brought more comforts to the farm than any other animal. Greater care in feeding and breeding would increase the results. The hog thrives on a large variety of foods. Many of these would otherwise be practically wasted. He becomes the gleaner in case cattle are fed corn in shock. Skim milk, whey, dish water, wastes of fruit, etc., can all be used to make a cheap food for hogs. A hog should have brains. Large vital organs are important. Hogs should be marketed while young. The best and cheapest meat is made this way. A good discussion followed the talk.

Prof. R. S. Shaw gave a stereopticon lecture on typical animals for feeding. The beef form, valuable portion of an animal, beef breeds and methods of feeding so as to secure the most profitable results were described. The views were good and the talk was full of interest and information.

The following musical was given in the Women's Building by the teachers and students of music:

- Overture, Poet and Peasant, *F. v. Suppe*
(Arranged for two pianos—eight hands)
Miss Freyhofer, Miss Rose,
Miss Mack, Miss McGraw.
- Under the Leaves, *Francis Thome*
Miss Ora Luther.
- Shower of Pearls, *Paul Wachs*
Miss Florence Liken.
- A Spring Idyl, *Margaret Rulhven Lang*
Miss Dollie Thorburn.
- Fifth Nocturne, *Leybach*
Miss Mae Louise Reed.
- Dance Caprice, *Eduard Grieg*
Miss Grace McGraw.

- Song of the Bathers, *Paul Wachs*
Miss Ethel Hume.
- Valse Capricieuse, *Grodzki*
Miss Mack.

Thursday evening was devoted to Forestry. Gov. Bliss was absent on account of illness, and Dr. Beal was appointed to act as chairman. He proved an efficient executive officer. Dr. Beal is one of the pioneers in forestry work, having done a great deal for Michigan along this line. Years ago he set out about 20,000 trees. The Arboretum near the station is his work. He has given numerous addresses and written many articles on this subject.

Prof. Roth of the State University was the first speaker. Among other things he said that wood was a staple product. Its use is universal and constantly on the increase. Michigan uses annually 1,000,000,000 feet besides stove wood. At present we import Cypress from Louisiana and Florida, and also a large quantity of pine from the southern states. The west is furnishing considerable lumber. The soil and climate of Michigan are well adapted for growing timber in abundance. One-third of the land in the best settled districts is unimproved. Timber could be grown on this to good advantage. 47 per cent. of the land of the state is still unimproved and about 40 per cent. is unsettled. Most of this is in bad shape. 6,000,000 acres are delinquent as to payment of taxes. Nearly all of this large tract could be utilized for timber and prove a source of immense wealth in the future.

Speaking of Forest Reserves, Prof. Roth advocated that the state should pay taxes to the counties on such lands the same as individuals. This policy is pursued in Germany and New York. The state sells land too cheap. The purchasers are not real farmers. The land should be protected and nature assisted to reforest. The reserves of Germany bring in an annual income of \$4 per acre above all expenses.

Hon. Chas. W. Garfield, '70, in discussing this paper said that the best asset of the state was its men, women, boys and girls and the next best the land. The state should take an inventory of its land asset, know the value of each section and its adaptability. Our legislators should pay more attention to business than to politics. Mr. Garfield was in his usual happy mood and gave a very lively discussion.

Prof. E. S. King then entertained the audience with a "Kentucky Horse Race," and was heartily encored. Since we are unable to spell the subject of his response it will have to be omitted, but it was interestingly rendered.

Dr. Clark, of the Bureau of Forestry, Washington, D. C., was next introduced, and gave a brief account of what this department is doing towards solving forest problems. Dr. Clark is sent out upon request of farmers to inspect wood lots and give advice and make suggestions.

After the piano duet by Miss Freyhofer and Miss Mack, which was thoroughly enjoyed by all, State Land Commissioner E. A. Wildey spoke on the Farmer and Reforestation. Michigan has 160,000 farmers. If unity of purpose could be brought out, the forestry problems would not be difficult. Oaks, poplars, locusts and evergreens can be raised on high land, while the elm, soft maple and ash could be cultivated on the low lands.

The returns are slow, but in a few years the investment would be a paying one. The fire warden act was explained and many suggestions were made as to the future of Michigan lands.

Music by the M. A. C. Glee Club followed the above discussion, after which Prof. Bogue spoke on "Forest Nurseries." Methods of planting and handling were carefully described. The importance of using clear land and good tillage was pointed out. The soil selected for a nursery should not be the richest on the farm since in that case transplanting to a poorer soil would cause the young trees to lose vigor.

The remainder of the evening was occupied by an informal reception in the parlor of the Women's Building by the State Board of Agriculture and the Faculty of the College. The attendance was good and all enjoyed the occasion. The senior women served ice cream and cake.

W. Z. Hutchinson of Flint, Pres. of the Michigan Bee-Keeper's Association, presided over the Friday morning session. It was deemed essential to make the industry a specialty. It should not be made subsidiary to any other business but should stand on its own merits. Brains and money are necessary to conduct this business.

Prof. U. P. Hedrick read an interesting paper on Bees and Fruit. Bees take nothing of value from the flower and do not injure fruit. Fruit is injured by wasps. Spraying trees in blossom will kill bees visiting them in quest of nectar. Bees, however, may scatter germs of pear blight. Even if no bees, no blight were true, it would also be true in a large measure, no bees no fruit. Orchards in which bee hives are kept bear more fruit than orchards not readily accessible to bees. New varieties are in many instances the result of cross pollination by bees. Many plants need cross pollination in order to be fertilized. The bee is an active agent in this work. Prof. Hedrick found by experiment that the bee is of little use in a greenhouse. It will not work and is frequently ill tempered.

Mr. Geo. E. Rowe in discussing this paper brought out the idea that a farmer had just as much right to keep bees as a specialist who might be located in the same neighborhood. It seems some bee-keepers claim the exclusive right to certain territory. Mr. Rowe found it advantageous to have his colonies near the strawberry bed. In case of an hour's sunshine, the bed was covered with bees which would not have been the case if the bees had been kept at a distance. Every fruitgrower should keep bees since they are essential to the production of fruit.

C. F. Hale, Pres. of the State Horticultural Society, was chairman Friday p. m. The music was furnished by the band of the State Industrial School for Boys. The selections were well rendered. Paid orchestras frequently render music of no better quality. The boys possess unusual ability and were well trained.

Plums and cherries were discussed by L. J. Post of Lowell. Mr. Post is somewhat of a humorist and an authority on plums. He favored planting the trees 14 ft. apart each way, cultivating the soil each week until the middle of July or first of August, and then sowing a cover crop. He has the pigs pick up the

wind-falls. All sprouts are removed. Pruning is done in the fall or early spring and the stronger limbs are removed. Ashes are supplied liberally. His favorite varieties are Red June, Burbank, Lombard and Monarch. In the raising of cherries there has been but little progress in years. Great loss usually results in transferring from nursery to orchard. The roots should be well protected and the trees planted early in the spring. The orchard should be kept in a good state of cultivation. The discussion indicated that the success of varieties depends largely upon local conditions.

"Peaches and How to Grow Them," was carefully handled by J. N. Stearns and discussed in a very practical, business-like way by Hon. R. D. Graham. The soil, varieties, diseases, thinning, picking, and marketing were described. Many valuable suggestions were made, and numerous questions asked. Mr. Graham is a very successful grower of peaches though not living in the so-called peach district.

W. W. Farnsworth read a paper on The Apple Orchard and its Needs. The location of an orchard should be determined by the soil drainage, air drainage, soil fertility, ease of cultivation and ease of marketing. Use tile drainage if necessary and keep water away from the trees. "Their feet must not get wet." An elevation is desirable so as to drain off the cool air. A porous subsoil is essential. Fertilizers should be bought by the acre, not by the pound. Mr. Farnsworth favored a two-year old tree, medium in size and vigorous. A leader should be kept but the trunk should be relatively short. The soil should be cultivated the first of the season. Sow a cover crop about August first. This keeps up the humus content, protects the roots and checks the growth of the tree thus preventing the danger of freezing back by having the wood properly hardened. Use the orchard for apples, not for other crops. A good apple orchard in Michigan is better than an orange orchard in California.

Mr. A. P. Gray, of Traverse City, in discussing this paper said that the essential points were the preparation of the soil, selection of varieties, tillage, fertility, pruning, thinning and spraying. He uses crimson clover, rye, oats and mammoth clover for cover crops. These are sown about the middle of July and plowed under the next spring. In pruning, secure open heads. Thin the fruit to 6 inches apart. Seeds, not apples, exhaust the soil. He advocated increasing the lime in the spraying solutions and not the copper sulphate.

Prof. W. B. Barrows gave a stereopticon lecture on insects and birds of Michigan. The habits of about 20 birds were described. Numerous insects were shown. Their life history, food supply and methods of destruction were explained. The talk was interesting throughout.

W. A. Anderson gave several readings at this session. Mr. Anderson has considerable ability as a reciter and he was enthusiastically encored.

The Rural Schools received due attention on Friday evening. After listening to several selections from the M. A. C. band, Pres. Snyder introduced Mr. D. J. Crosby, '93, of the Dept. of Agriculture, Washington, D. C., who gave a stere-

opticon lecture on Nature Study and School Gardens. Mr. Crosby opened his address by giving a rapid review of agricultural education in the U. S. There are now 40 colleges which give the M. S. degree for work along agricultural lines. One and two-year courses have been established in several institutions of a grade below college work. High schools in Ohio, Missouri, Wisconsin, Illinois, N. Carolina, Alabama and Georgia have courses in agriculture. Schools of correspondence, reading courses, experimental unions, nature study, all have done much to advance agricultural education. Numerous texts have been written. Among the most prominent authors are Bailey, Bessey, Burkett and James.

Germany was the first to establish school gardens. In America, Boston was the pioneer. Each child has a small plot. Vegetables are raised and sold. The money is deposited in a bank and when purchases are made, each child writes a check. Business is thus combined with school work. The schools of Hartford, Conn. have 60 acres devoted to gardening. Interesting slides were shown of the gardens in New York City and Hampton Institute.

The methods of beautifying school yards were explained. Illustrations from Rochester schools were used. Country children are just as interested as city children. This fact was demonstrated from work done in Illinois.

Mr. Crosby strongly advocated the introduction of agricultural subjects into our county normals and high schools.

Mr. A. B. Lightfoot, of Ann Arbor, next gave his illustrated lecture on the "Rural Schools of Michigan." The conditions as they actually exist were illustrated with the stereopticon. Consolidated schools from Ohio and Indiana were shown as well as some of the Michigan high schools. The contrast between these schools and our rural schools was well brought out. The idea that the country boy or girl has the same chance as the city boy or girl was exploded. In many districts in Michigan school taxes are exceedingly high. In several they ran as high as \$4.63 per \$100 valuation. Schools in such districts are poorly equipped, the instruction is inferior and only five months of "school keeping" is done. Mr. Lightfoot argued for the revolution of our present method of school taxation and organization. The unit of taxation must be at least as large as the township. Michigan has over 1,000 schools where the enrollment is 8 or less. If these could be consolidated, the expenses would be decreased and a three-year high school course could be instituted. School books in Indiana are supplied by state contract. As a result, most of the ordinary texts can be purchased there at one-half of the price paid in Michigan. As an illustration, a spelling book selling for 25 cents in Michigan is supplied to the schools of Indiana for 10 cents and the quality of the two books is practically the same.

The M. A. C. chorus closed the evening's program by rendering "The Heavens Are Telling" from Haydn's Creation. This is a difficult song, but the execution was good. Miss Freyhofer and Miss Mack have charge of the chorus work.

WOMEN'S CONGRESS.

Miss Gilchrist, Dean of Women's department, conducted the session Wednesday afternoon. Miss Avery gave an address on Physical Training for Girls in which she pointed out the necessity of developing a perfect body in order to do the best work. Girls on the farm need this exercise as much as girls in the city or in college. Gracefulness should be developed. Personal bearing counts for much. Systematic physical exercise corrects natural defects and prevents disease. Other interesting addresses were given of which we have no notes.

A second session was held on Thursday afternoon. Mr. C. M. Partch pointed out the value of system, hygiene, simplicity and cleanliness in housekeeping. Miss Jennie Buell discussed how to get along best in the home. Love, united with reason, should control. To plan is to increase the power of time and strength. Mrs. Bogue gave an interesting discussion of this subject. Mrs. Gingles explained the course in sewing at M. A. C. and spoke of the necessity of a knowledge of practical sewing in the farm home. The mother usually does the sewing and finds little time to teach her daughters. Hence the importance of introducing this subject into our schools.

RESOLUTIONS.

To the Chairman and members of the State Farmers Round-up at the Agricultural College, February 23-26.

Your committee do most heartily endorse the work done by Prof. L. R. Taft as Superintendent of Institutes. We would also recommend the erection of a stock judging pavilion on the college grounds.

We favor the passage of a law looking to the proper branding of all so called "stock foods" with an analysis of its contents on every package.

We favor the further extension of the one-day institute plan.

We also favor the elimination of the present restriction in regard to the Legislative appropriation for the Agricultural College in the so called one-tenth mill bill.

We desire to acknowledge our indebtedness to the newspapers of the state especially to *The Detroit Tribune* for reporting our meetings, also to the faculty of the College for their courtesy and kindness, and to the railroads for reduced rates to the institute.

Respectfully submitted,
C. S. BARTLETT,
WM. ROSE,
CHARLES B. WELCH.
Com.

EDUCATIONAL.

WHEREAS, The evident trend of public sentiment along educational lines is towards those subjects which can be made practical in increased efficiency in the ordinary avocations of life as well as those studies which result in intellectual strength and development, and

WHEREAS, farming in all of its branches embraces different subjects of a purely scientific character, some knowledge of which is necessary in order to a prosecution of this vocation in any of these branches with even an ordinary degree of success and,

WHEREAS, These subjects in addition to being practicable in the ordi-

(Continued on page 6.)

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ABOUT THE CAMPUS.

Mr. Bain B. Hanke is attending the Iowa State College, Ames, Iowa.

Miss Ada Howe has been visiting her aunt in the upper peninsula, since Jan. 26.

Miss Wellman was obliged to remain home on Monday and Tuesday on account of the serious illness of her mother.

The Mothers' Club will meet at Mrs. U. P. Hedrick's next Thursday evening at 8 o'clock.

A military hop will be given on the evening of March 11 in honor of Majors Kell and Vernou.

Prof. W. O. Hedrick has been ill for the past few days and has been unable to meet his classes. However, he is out again today.

Cross-country runs have been started. All those who expect to enter the long distance runs on field day have to take this exercise. About 30 are taking part.

The track team this year will be composed of new men principally. Only two of last year's team are taking part. A great many give promise of doing well.

The concrete is now being put into the tunnels. The work is progressing as well as could be expected taking into account the adverse weather conditions.

Measles are on the decrease. The patients are all doing well and the number of cases is growing smaller. A new consignment may arrive in a few days, however.

Mr. J. G. Cavanaugh spent a few days with his old friends at College

last week. He has been working in the lumber camp all winter, but expects to be back next year.

Geo. Jones, who has been seriously ill with pneumonia, has so far recovered as to be able to leave for home. His parents have been with him for some time.

Fine soils have more air space than coarse soils. An experiment in the chemical laboratory showed about 16 per cent more air in fine than in coarse soil.

The Junior Annual will contain the name, address and career of each alumnus who sends in an order for the book. Send your order and information to the business manager.

Messrs. Gurney and Walker have spent a week in Detroit working on their theses. Every opportunity was given them by the Packard Motor Car Co. to make their investigations.

At the next meeting of the Woman's Club, March 14, Ruskin is the subject under discussion. Mrs. H. E. Smith will give the paper. Quotations will be from Ruskin. The members are urged to be present promptly at 2:15.

The Inter-Collegiate Prohibition Oratorical Contest will hold its meeting at M. A. C. April 29. The U. of M., Albion, Kalamazoo, Adrian, Hope and Hillsdale will be represented. The prohibition club at M. A. C. died for want of spirit(s) some time ago. Consequently M. A. C. has no candidate.

H. N. Bandholtz is Colonel, commanding, of the Second District

Philippine Constabulary. Mrs. Bandholtz is with him and they report that life is quite enjoyable but are hoping for a chance to visit the States.

At the last meeting of the Detroit Engineering Society, four M. A. C. boys were present, Bale, Nagelvoort, Gurney and Walker. Engineering graduates of M. A. C. are finding Detroit a favorable place for work. The number is constantly on the increase.

Mr. and Mrs. M. L. Dean have sold their home and expect to leave for St. Louis, Mo., this week. Mr. and Mrs. Dean have made many friends during their stay at M. A. C. All join in wishing them pleasant surroundings in their future home.

Mr. Leonard has in course of construction 12 wood lathes similar to the one sent to the St. Louis Exposition. The construction of these lathes has been very considerably cheapened and at the same time the design is being modified to more nearly meet educational requirements.

The M. A. C. Woman's Club held an interesting session on Monday, Feb. 29. Members responded to roll call by naming their favorite picture and giving their reasons. The Sistine Madonna, Angelus, Madonna of the Rocks, Baby Stuart, Christ Before the Doctors, were some of the favorites. Mrs. Weil read a very exhaustive paper on modern portrait painters. Whistler, Herkimer, Watts, Duran, Sargent, Chase, Munkacsky and several

others were reviewed. The paper was interestingly written and contained much information.

Gen. Chas. H. Howard, editor of *The Farm, Field and Fireside*, gave an address in chapel Friday morning. He spoke of the exciting times of 1864, and of his visit to Washington with dispatches for Pres. Lincoln from Gen. Sherman. The interview with Lincoln while he was shaving himself, his cordiality and seriousness, his anxiety for the boys at the front, gave those present a vivid picture of the common life of this great man. Gen. Howard said that he had never met Lincoln's equal and had not lost the impressiveness of this interview.

The Union Literary Society entertained the members of the faculty last Saturday evening. The program was uniformly distributed among different classes and consisted of an oration, an essay, a story, a reverie, a declamation and a coronet solo. The productions were of a very substantial nature and were well delivered. The critic gave a very unique report. After the literary program some excellent spy apples were served and then a faculty dance was announced. It being leap year, the ladies made attempts at securing partners. Most begged off. Their feet were too heavy or some sort of an excuse was given. Finally Mr. Gunson assisted and managed to secure enough for a Virginia reel. All had a very pleasant time. The faculty was well represented at the meeting and the "Lits" proved entertaining hosts.

nary affairs of the farm also possess the other advantages of developing and strengthening the mental capacities of the student equally with any of the subjects now being taught in the primary schools of Michigan, and,

WHEREAS, None of these subjects are now being taught in these primary schools, therefore,

Resolved, that we, as representatives of the agricultural classes of the state, do hereby urge that provision be made whereby the elementary principles of the various scientific branches involved in the common operations on the farm be included in the curriculum of our common rural schools.

NATIONAL LEGISLATION.

Resolved, That we favor the establishing by the national government of a parcels post system.

Resolved, That we favor national, state and local co-operation in bringing about an improvement of the public wagon roads—and the changing of our constitution so as to permit it.

Resolved, That we urge our senators and representatives in congress to favor the Adams bill now before them, increasing the appropriation made to the agricultural experiment stations of the various states.

Unanimously adopted by the institute.

THE M. A. C. IS THE FARMER'S GOOD FRIEND.

In the course of one of the numerous discussions that characterized the meeting of the farmers at Lansing, one man complained of something at the Agricultural College—no matter what—and then explained that it was doubtless the fault of the legislature, adding that as soon as a man showed particular competence in any direction at the college he was tempted away by an offer of more salary from some other institution. This remark was applauded and was followed by a plea for greater liberality in the matter of appropriations for the support of the college.

There are now assembled in Lansing more than 800 farmers and every one of them is willing to take off his hat and bow to that gentleman who was so long despised—the book farmer. Of course, that is a matter of almost ancient history now, but the old customs are not so far behind that their influence has been altogether lost. For many years the farmer in the legislature was the most implacable enemy of the state university. If he did not want it abolished entirely he would accord it no treatment in the way of support that was not niggardly in the extreme and it was in the face of great handicaps to its financial resources that the university was able to maintain the position it won early in its career. Among the teachers of the country and among the faculties of the various American universities, Michigan is looked upon as a ready source of supply for teachers. And it is seldom that a Michigan professor cannot be tempted away because almost any salary offered him is bigger than that which he receives here.

The conditions as to the Agricultural College are little different from those at the university. In face of handicaps almost as great as those faced by the university this in-

stitution has won its way by force of sheer merit until it is in the vanguard and has served as the model after which similar colleges in other states have been patterned. That it is the center of agricultural learning in Michigan is now admitted; that its standard must be not only maintained but increased is obvious, but as yet it has been difficult for the lawmakers to see that there have been changes in the conditions which make for the success of agricultural colleges. Competition is keen. Greater facilities are necessary for the conduct of those experiments which are suggested in ever increasing numbers by modern scientists and most of all it is necessary to recognize capability in the teaching department by substantial returns in salary to the end that there may be no falling off in the standard. The work of the institution is so satisfactory and the results so obvious that it should not be necessary to plead very loudly for liberal treatment. The Agricultural College supplies not only facilities for undergraduate students; it is the center of the agricultural knowledge in the state; it is the guide of the working farmer and a continual inspiration to the man whose only teacher has been experience. It is entitled to generous treatment and the farmers should insist that it have it.—Editorial *Detroit Tribune*, Feb. 26.

'62.

F. Hodgman, of Climax, Mich., has sent five copies of Home Harmonies to the music department. Mr. Hodgman has written many of these songs himself. The students of the department are practicing the songs at present.

"A baby was born to a certain minister last Saturday morning," says an Oklahoma paper. That evening the officers waited on him with fifty dollars in cash. The next morning when the congregation assembled two wags stood before the church door and one bet that the minister would thank the Lord for the money first and the other bet he would thank him for the baby. When the reverend gentleman rose to pray he said: "Lord, we desire also to thank Thee for this timely succor, and the boys are yet undecided as to which was the winner.—*Moderator Topics*."

The *Hermes* of Petoskey high school is an interesting exchange. It has a very neat cover and contains some excellent articles.



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