# The M. A. C. RECORD.

MICHIGAN STATE AGRICULTURAL COLLEGE.

Vol. 10.

LANSING, MICHIGAN, TUESDAY, JANUARY 24, 1905.

No. 18



HON. ROBERT D. GRAHAM

The recent appointment of Thos. F. Marston of Bay City to membership on the State Board of Agriculture, returns to that body one who has already generously given it his services for six years, during four of which he was its president. Mr. Marston, one of the most successful and progressive dairy men of the state, is too well known to the College community to require any extended notice here. For the benefit of the newer members of the faculty and the more recent students, who may not be acquainted with his genial qualities, we append a brief

biographical notice. Though having, as has already been said, served six years as mem-ber of the State Board of Agriculture, Mr. Marston is still the youngest member of the present board. He was born at Bay City in 1869, and his fine farm of 350 acres on which is kept one of the best Jersey herds in the state, is located near that city. His educational experience beyond the common schools was somewhat varied, he having taken work at M. A. C., the University of Michigan and the University of Wisconsin. Originally having intended to perfect himself in mechanical engineering, when his health failed he betook himself to farming in which he still continues to be engaged with marked success. He has been prominently connected with the live stock interests of the state and has built up an enviable reputation as a dairy man.

Mr. Marston takes a deep and active interest in all affairs of the Col-



HON. THOMAS F. MARSTON

lege and brings to the Board a fund of practical knowledge and experience that is freely offered for the benefit of the College and the state.

The reappointment of Robert D. Graham upon our governing board will be hailed with satisfaction by all who have the interests of the College at heart and will insure to the State Board the services of a most capable, efficient and tactful

Mr. Graham was born in Ontario, Canada, Nov. 11, 1855, but came with his parents to the states when but a babe. His parents ultimately located upon a farm near Grand Rapids and his education was acquired in the district schools and the schools of that city. Later he studied law and was admitted to the bar, but has never practiced the profession.

While being connected, in various capacities, with numerous large business interests, notable among these being president of the Fifth National Bank of Grand Rapids, 2 director in the Citizens Telephone Company and a leading stockholder in a large fruit ranch in Texas. Mr. Graham still continues to live on his farm near Grand Rapids. He has always been actively interested in matters of state government and twice represented his district in the House of Representatives and twice in the Senate. During this period he was always deeply interested in the welfare of the College and had an important hand in the legislation enacted in her behalf.

The recent resignation from the



HON. HENRY F. BUSKIRK

State Board of Agriculture of Mr. Charles F. Moore, of St. Clair, was regretted by all who knew of his kindly interest in the College, and his unselfish devotion to the duties of his position. It seems fortunate, however, that, since Mr. Moore's health would not permit him to longer serve M. A. C., his place should be filled by one of her repre-sentative alumni, and a man of such sterling qualities as Mr. Henry F.

Mr. Buskirk was born at Hopkins in Allegan county, Nov. 26, 1856. His early life upon the farm, and his education, previous to coming to the Agricultural College, was obtained in the country schools and the high school at Otsego. He was graduated from the College in 1878 and has since been chiefly engaged in farming near Wayland.

He was selected to represent his district in the legislatures of 1897 and 1899, and, during the latter session, as chairman of the Agricul-tural College Committee in the House, rendered able, earnest and effective service in obtaining greatly needed appropriations, of which the Women's Building is one of the substantial realizations. We feel sure that, in his new position, his knowledge of state affairs and his special interest in the College, will be a source of much strength to the institution, and that the State Board will welcome his presence in its

[We are indebted to the Michigan Farmer for cuts used in above article. ]

### '03.

We are indebted to W. J. Wright, of the above class, for the Tournament of Roses edition of the Pasadena Daily News, of Pasadena, Cal. The tournament took place on Jan. 1st. and the paper is profusely illustrated with pictures of rigs trimmed with roses and other beautiful flowers. It also presents half tones of many fine residences in and about Pasadena. Mr.-Wright is connected with the paper as agricultural editor and reporter

### ALUMNI.

85-'86.

In the December number of the Rural Advocate is a fine half tone of N. P. Hull, overseer of Michigan State Grange, and on the cover page is a picture of his fine, large barn and covered yard. An article entitled "A Fine Dairy Barn" appears in connection with the picture, explaining the construction, appearance and desirability of such a barn with covered yard. The number also contains a half tone of E. A. Holden, '89, master of Capital Grange, Lansing.

'98.

H. C. Skeels, of the above class, writes from Joliet, Ill., acknowledging receipt of College calendar. He states that the scenes bring up many pleasant recollections, especially the log cabin in the botanic garden, which he helped to build. Mr. Skeels is employed as botanist in the Forest of Arden at the above place, and invites College people when passing through to stop and visit the Forest, as he feels one one would be repaid in doing so.

'00. F. H. Foster, with class of 'oo, visited the College the past week. Mr. Foster is connected with the International Live Stock and Timber Co. with headquarters at Tecalate Ranch near Durango, Mex. The company issues a little book which contains interesting facts concerning the industries of Mexico. Mr. Foster returns to Mexico within a few weeks.

'01.

R. S. Northrop, professor of horticulture at Logan, Utah, writes that he finds Logan a very pleasant place and so far enjoys the work. He gives a talk before the Agricultural Society (Utah) on Feb. 1st.

Geo. D. White, who has been employed by the Patent Paint Co., of Milwaukee, Wis., for some time, has been promoted from a place in the laboratory to a superintendency of one of the departments.

'01-'02.

Robert Stark, special sugar beet student in 'o1-'02, has recently arrived in Cuba where he has secured a position with the Cuban-American Sugar Co. He writes very pleasantly of his trip and of the interesting sights noted among which are Morro Castle and the ruins of the Maine. He has only begun his work but thinks he will like it; says there are splendid opportunities with the above com-

George A. Woodruff, sp. '97, for some time chemist in a beet sugar factory in Logan, Utah, has now been placed in charge of both the Ogden and Logan factories which keeps him very busy. These factories have a capacity of about 100,000 tons of beets testing over 15 per cent. sugar. They soon start in on a five months' or more campaign, so will keep the work going nearly all

### NOTICE.

Meeting of all RECORD Editors in President's office Friday, Jan. 27, M. A. C. ELECTRICAL CLUB. at 12:40.

### C. L. S. PARTY.

Last Saturday evening the Columbian Literary Society entertained their lady friends at their first "Eleven O'clock" of the New Year. The music furnished by Miss Cook of Lansing was exceptionally good. Miss Purmort and Mr. Foster kindly chaperoned the merry dancers.

The club met last Tuesday evening in the lecture room of physical laboratory. Prof. Sawyer gave a very instructive talk on the relation of electric current and electro motive force in the alternating current. A general discussion followed. Mr. J. Jones read a paper on Power Transmission in the New York

### THE M. A. C. RECORD.

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

B, A. FAUNCE, MANAGING EDITOR. ASSOCIATE EDITORS. PAULINA RAVEN, '05. ALTA GUNNISON, '05. CALLA KRENTEL, '07, ROY POTTS, '06. HARRY HOGUE, '06. T. H. MCHATTON, '07. DALTON MOOMAW, '07. O. I. GREGG, '07 BERENICE MAYNARD, Sp.

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#### TUESDAY, JAN. 24, 1905.

HE members of the M. A. C. Farmers' Club have issued a very neat program of meetings for the winter term. It is a very attractive little folder, giving date of each meeting to be held, subject of talk and speaker. Some very interesting features are planned, and all are very cordially invited to attend. The motto is "I'll contribute all I can."

### Y. W. C. A.

Ella McManus led the meeting last week. The topic considered was "How Christ Transforms Lives." Many helpful thoughts were brought out by the leader and those whom she had asked to assist

### OPEN HOUSE.

The first of the open-house receptions in the Women's Building was given Friday night to the students of the College. There were no formalities in the reception unless it was when groups were asked give songs around the piano. Miss St. John at the head of the entertainment proved very efficient in marshalling the singers and keeping the social life on the move.

### Y. M. C. A.

The Bible Study Committee has organized two new classes during the past week, three in the Sigma Mu Beta Society and one among Freshmen who will take up "Studies in the Life of Christ." There are now nine classes with a total enrollment of 184 men.

The two new classes in the study of Japan met Sunday and discussed the first lesson of the book. These classes are open at every meeting to visitors who are interested in the progress of modern Japan.

Rev. W. A. Minty preached in the chapel Sunday morning on the "Proper Use of Wealth." He showed very forcibly that it is the duty of every man who can make money to be rich for God, to make money for God's use.

Dr. Waterman gave a convincing talk on the standing of the Y. M. C. A. man in college life, Thursday

In his talk before the students Sunday evening Prof. Bogue took for his subject, "Credo," and gave many new thoughts on the beliefs of other religions and the faith that is necessary in the life of the Christian. These meetings are drawing a large attendance each Sunday, every seat being taken in the last meeting.

### ECLECTIC PARTY.

On Saturday evening, January twenty-first, the Eclectics gave their first hop of the winter term. Ferns draped in the society colors were the floral decorations. The society rooms were well filled with dancers, among whom were many of the society's alumni. Professor and Mrs. Sawyer kindly consented to act as surety for the decorum of the occasion. Eleven o'clock "Home Sweet Home" came all too soon for everyone. As the party broke up, the society's guests returned the general verdict of another successful party. The music by Messrs. Baker and Parreant was one of the pleasant features of the

### HORT. CLUB.

The M. A. C. Horticultural Club met last Wednesday evening in its rooms with one of the largest attendance of the year. Mr. Craig read a very interesting paper on the raising of strawberries, after which a lively discussion followed which brought out very many interesting points. Four varieties of apples were passed around and their characteristics discussed. McCue gave a report as to what the program would consist of for the term. Many interesting meetings are anticipated.

Mr. C. H. Hilton of Benton Harbor, a graduate of this College, will address the Club next Wednesday evening on some phase of fruit growing. Everybody is invited to come.

### DEBATING CLUB.

The question discussed last Thursday evening at the regular meeting of the Debating Club was, Resolved, that labor unions should be chartered under federal law. The affirmative speakers were Messrs. H. B. McDermid and A. Roeller. The negative was upheld by Messrs. E. P. Robinson and A. N. Robson. The judges decided in favor of the affirmative, Edwards kindly acted as critic.

The meetings of this club are held every Thursday night at 7:00 o'clock. Every one is invited to attend. Come to the next meeting and learn the solution of the labor problem.

### SENIOR ENGINEERING SOCIETY.

A realization of the advantages to to be gained in the modern engineering paper over that of text books led to the organization of the Senior Engineering Society; not named thus to indicate exclusiveness, for the meetings will be open and the attendance of the members of the faculty and teaching force are desired. Meetings will be held every Wednesday evening at 6:30. Officers are: Pres., R. C. Fowler; Vice Pres., F. L. Johnston; Sec., Treas., C. W. Stringer; Program, W. Strong, W. P. Robinson, R. C. Fowler.

#### ATHLETICS.

The second basket ball game of the season was played in the armory on Saturday afternoon against the Bay City Y, M. C. A. The game was a good one all the way through, the last half being especially interesting. The home team played a much better defensive game than on the week before, and Bay City played exceptionally well considering the fact that the team was on a strange floor. Good feeling prevailed, and both sides were cheered heartily at the close. The line-up

Schaefer ' Hawthorne Carter Briggs Dodge Forwards Krehl Center Mather-Chatfield (Simpkins Guards Anderson

Baskets from field - Krehl 9, Schaefer 5, Dodge 5, Tuttle 2, Carter 1, Hawthorne 2, Chatfield 1,

Anderson 3. Fouls — Krehl 4, Hawthorne 4. Score—M. A. C. 47; Bay City, 20. Referee—Day, Bay City. Umpire -Haftenkamp, M. A. C.

An overhead horizontal bar, a pair of flying rings and a climbing rope have been placed in the gymnasium. Several additions of minor note have also been added to the apparatus.

Fifty eight wrestlers have reported, four of whom, McDermid, Fryman, Belknap and Graham, won championships last year. These together with Bell of the 1902 team and plenty of promising new material make a very bright outlook for this season's contests. A tumbling squad has been organized and the regular track work has begun. About 35 new men have signified their intention of entering the track contests.

The following from the sa'es book of the Book Buying Association shows something of the business conducted during the fall term: 2125-Books.

112-Sets drawing instruments. 124-Sets including 1 T sq. 2 Triangles, I curve, and I 12inch rule.

307—Drawing boards. 3625-Sheets mechanical drawing paper. 278-Free hand drawing tablets.

176-Sheets D. E. paper. 8-Reams botany and zoology

drawing paper. 28-Charcoal drawing outfits. 30-Topographical outfits.

65-Sewing portfolios. 40-Dress cutting systems. 404-Portfolio note books.

442-Pounds portfolio note paper.

1738—Note books. 394-Scratch pads. 300-Letter tablets.

1960-Faculty tablets. 252-Boxes stationery. 35-Fountain pens.

24-Gross common pens. 1080—Drawing pencils.

1274—Common pencils. 500—Erasers.

260-Drawing ink. 210-Common ink.

150—Electric light bulbs. 85—Botanical instrument sets.

238—Mucilage, glue and paste. 8—M. envelopes.

Many other miscellaneous articles too numerous to be mentioned. LILLIAN KENDALL.

Following is a program of meetings of the M. A. C. Farmers' Club for the winter term:

January 10-Future for the Michigan Farmer. Paper by H. H. Crosby.

January 17-Soil cultivation to secure Aeration and Conservation of Moisture. L. B. McWethy.

January 24-When, Where and How to Market Live Stock. Prof. R. S. Shaw.

January 31-Renting vs. Buying a Farm. (a beginner) Prof. J. A.

February 7—Intensive Farming its future. C. A. Willson.

February 14—Merits of (a) A Beef, (b) A Dairy Cow. L. F. Bird, F. O. Foster.

February 21-Farm Fertility; How Conserved and How Increased? A. A. Towner.

February 28-The Mule as a Substitute for the Farm Horse. Dr. Geo. Waterman.

March 7-What will be the Condition of the Farm in 100 years if used as it is Today? W. A.

March 17-Farm Literature; Where Found and How to be Used Prof. C. D. Smith.

Meetings called at 6:30 p. m. You are cordially invited and welcome. May there be much of profit and pleasure to us all.

The senior class in agriculture killed four hogs the past week which had been fed in the same pen since October. The breeds chosen for the experiment were Poland China, Berkshire, Chester White and Tamworth. All were of practically the same age and fed the same ration. The Tamworth as a bacon hog was a very good type as was also the Poland China typical of that breed. The weights were as follows: Poland China, live weight 221 pounds, dressed 84.84 per cent.; Berkshire, live weight 211 pounds, dressed 83.64 per cent.; Chester White, live weight 211 pounds, dressed 83.64 per cent.; Tamworth, live weight 244 pounds, dressed 82.99 per cent. Two others were also killed but as they were not included in the experiment we have not mentioned their weights. The cutting up of the carcasses was also the work of the same students.

Club G has a table supposedly by seniors but by drafts from the other classes has made itself practically self-supporting. When in need those at the head of the table ask for Moore while those at the foot push the Button. If its sweetness they desire its "pass the sugar Bush" (nell); and if they wish to audit its "pass the Meat Bill" (De Lange). With a Sheap at the table, its not likely they'll lack for mutton. Of silverware they have the best, for although it looks rather "Seedy" (C. D.), its the genuine Sterling. As to their physical condition one man (Fred) claims that he is Strong enough for anybody. Its evident the party doesn't wish to allure new members for there is (one) Bate (s) nearby which hasn't been resorted to, but as a sophomore (Snyder) says, "There's nothing like 'av'in things "Andy." Can any table do better?

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### ABOUT THE CAMPUS.

0

Instructor Gunson was in Ludington on Friday of last week where he attended a Farmers' Institute.

A number of gentlemen and ladies from the Miller's Association visited the college last Thursday.

Mr. Gilbert Daane, '09, left last week for Grand Rapids, where he has a position in the Commercial Savings Bank.

About 140 students have enrolled for the three special courses this year. There were 137 in the five courses last year.

Two inter-class basketball games will be played Saturday,—Freshmen vs. subfreshmen and sophomores vs. seniors.

Pres. Snyder returned Thursday night from Washington, D. C, where he attended the meeting of the A. A. A. C. and E. S.

A goodly number of College people turned out Friday evening to hear and enjoy the recital given by Prof. Von Buhl of Lansing.

Mr. E. C. Crawford while working on a casting for the tunnel the past week suffered a bruised foot by the casting dropping upon it.

Prof. U. P. Hedrick gave an address at the annual meeting of the South Haven Pomological Society Wednesday of last week.

C. H. Hilton, 'oo, will be at the College and address the special course students Wednesday, Thursday and Friday. He will give a talk before the Hort. Club Wednesday evening.

Dr. Waterman's talk at the Y. M. C. A. on Thursday evening must have impressed all who heard it and should inspire all to nobler ideals.

Prof. Smith attended institutes at Charlotte, Cooper and Fremont the past week. Miss Carpenter and Prof. Bogue also attended the institute at Charlotte.

R. C. Benner, a former instructor in chemistry at M. A. C., is teaching at the University of Wisconsin and will finish the work for his master's degree in the spring.

Prof. J. D. Tower has been attending a series of institutes in Lenawee county. He reports great enthusiasm with the banner meeting at Ogden Centre. The attendance was 1,200 for the three sessions.

Among the students who were guests of friends at the banquet given by the Miller's Association the past week were Marguerite Christy, J. Hanselman, Blanche Larry, B. W. Jenks and Florence Liken.

Mr. B. A. Bullock and wife were the guests of the former's sister, Mrs. L. E. Seelye, in Collegeville, a few days the past week. Mr. Bullock, who is a brother of D. S. Bullock, '02, is attending the school of osteopathy in Des Moines, Ia.

The officers association will give a military hop on Friday evening, Jan. 27th. All students are required to appear in uniform. Men whose uniforms are being altered may get excuses from their captains. Prices to students 75 cents, all others \$1.50. Music by Germania orchestra of Battle Creek.

Miss Gilchrist spoke before an institute at Goodrich on Thursday of last week. Her subject was "A Practical Education for Girls." Secretary Brown was also in attendance at the above meeting and gave an address on "The Ideal Education."

There will be an entertainment at the First Presbyterian church on Friday evening, Jan. 27, for the benefit of the Humane Society. The program will consist of Music by some of the best talent in the city and readings by Prof. King. Admission 25 cents.

The December number of the Rural Advocate contains many interesting features, among which are half tones of Dr. Kedzie, Ex-Gov. Luce, a scene on the farm of F. B. Garratt, '74-'75, and reproductions of corn cuts used in Prof. Jeffery's bulletin.—Ex.

The agricultural department has received through Mr. Murdaugh, '08, some samples of fiber flax. The samples show the product in the different stages of operation up to the finished cloth. It is expected soon to have other samples used in the process of making rope.

There were 42 men present to hear Dr. Waterman's lecture on "The Character of Christ," in the Y. M. C. A. room Sunday afternoon. The interest is steadily growing in this course of lectures and it is hoped that it may be appreciated to the fullest extent before the end

of the term. Next Sunday Dr. H. Edwards will talk on "David."

At the M. A. C. Farmers' Club last Tuesday evening Instructor L. B. McWethy gave a very practical and interesting discussion on the subject of "Soil Cultivation to Secure Aeration and Conservation of Moisture." A general discussion followed bringing forth many new and practical applications. Fifteen new names were added to the membership roll.

Robt. Spencer at one time employed by the Horticultural Department, writes from Calgary Alberta, Canada, and calls it "this neck of the world." He states that it is a ranch country yet they grow some flowers and trees. They are having very little snow, and a very mild winter. Mr. Spencer was a pleasant, cordial young man, and made many friends while at M. A. C. We wish him success.

On Wednesday of last week Hon. C. F. Hammond, of Lansing, gave two addresses before the special course students. One on "Deeds, Notes, Mortgages, etc.," and the the other on "Property Rights of Women." Mr. Collingwood gave a talk on Parliamentary Law on Thursday, Mr. H. H. Hinds, of Stanton was also a speaker on that day. Mr. Frank Crandall, of Howell, gave a talk on Holstein Cattle Friday before the live stock students. Prof. Bogue also gave a talk at 3 o'clock on that day. These talks were very much enjoyed by the boys who gained much valuable knowledge therefrom.

Miss Bessie Buskirk, '03, of Wayland, visited College friends over Sunday.

Remember the Hort, Club on Wednesday evening. All are

On Monday Ray Stannard Baker, '89, lectured at Harvard University to the students in economics.

Prof. J. D. Towar is building a house on his lot north of the College Hospital on the Pine Lake road.

The Columbian Literary Society has improved its rooms greatly by addition of paper and paint and by a new floor in one room.

Supt. Martin and wife, of Williamston, were the guests of B. A. Faunce and wife on Saturday last. They were also accompanied by Mrs. Martin's father, A. M. Alton, a prominent nurseryman of Fremont, Mich.

The State Millers' Association held its 30th annual session at the Hotel Downey in the city during the past week. Prof. Kedzie and Mr. Robison attended part of the sessions, Mr. Robison giving an address Tuesday on Feeding Stuffs.

Hon. Frank Wells, president of the state board of health, died Friday morning of typhoid fever at the home of Judge Cahill in Lansing. Mr. Wells had given much time outside of business to literary and scientific matters and was a firm friend of the College.

Mr. and Mrs. R. F. Place, 314 Pine street, s., gave a 6 o'clock dinner Friday evening, in honor of the birthday of their son, Edward, to 10 of his Senior classmates. During the evening they presented him with a fine leather bound volume of Tennyson's complete works.

### HOW TO USE A MICRO-SCOPE AND HOW TO TEST SEEDS.

I hand you a copy of the answers written by one of the seventy-five students now taking a course of eight weeks studying live stock and a few accessory subjects.

In these times, simple microscopes are good, cheap, easily obtained, and are much used in technical work, yet it is not at all uncommon to find professors of colleges who do not know how to get the best out of this simple instrument.

The importance of understanding several good and easy methods for testing seeds, both large and small, is too obvious to need any argument,

W. J. BEAL, Agricultural College.

I. Give directions for the proper use of a simple microscope when held in one hand.

Keep both eyes open. Hold the lens close to the eye and at proper distance from the object. Steady the hands by each other, and hold the object in good light, Keep fingers and dirt off the lens.

II. Give some good methods of

testing the vitality of seeds.

1. Place seeds in folds of a thick, wet paper or cloth, and put between two common plates to prevent evaporation. Put in 50 or 100 so that the per cent, can be readily determined.

2. Put seeds in clean sand that has been dampened, and keep it in a warm place. All of the tests must be made in places of moderate

THe omitted to temperature. speak of first soaking seeds in water until swollen.]

3. Put wires across the top of a shallow "square" tin dish which contains some water. Place over these wires a cloth long enough to have little loops between the wires in which to place the seeds. Do not allow the cloth to touch the water except at the end of it. The cloth will become wet and sprout the seeds.

H. H. WARNER.

### INTEREST IN GOOD ROADS.

Nearly every county in the state has asked for a speaker on good roads. For several years Hon. H. S. Earle, State Highway Commissioner, has devoted several weeks of his time without compensation to attending institutes in various parts of the state. This year he will be almost continuously in the field from Jan. 10 until the close of the Roundup, during which time he will visit some twenty-five counties, speaking at from one to three places in each. Beside Senator Earle and several others of the road force, arrangements have been made to secure the services of D. Ward King, the highway expert of the Missouri State Board of Agriculture, for three weeks of institute work. Mr. King has developed what is known as the "King method" of keeping up the roads. This requires little expense for machinery or labor and yet the results have been surprising. Mr. King has been in great demand for institute work and in addition to visiting nearly every county in Missouri-many of them several times—he has spent several weeks in Indiana, Iowa, Nebraska and other states. Although his ideas were at first somewhat doubtfully received, they have been very generally adopted, and where his recommendations have been followed excellent results have been secured. The King drag is a float rather than a harrow as at first supposed by some, and serves as a combined grader and roller. It has been found that one mile of road that has been dragged six or eight times during the season, requiring 10 or 12 hours labor for man and team, can be kept comparatively hard and dry at all times, while similar roads that have not received attention were practically impassable for weeks or even months.

Mr. King will speak at the following places in the state: Cassopolis Feb. 13, Benton Harbor Feb. 14, South Haven Feb. 15, Otsego Feb. 16, Adrian Feb. 17, Pontiac Feb. 18, Dearborn Feb. 20, Howell Feb. 21, North Adams Feb. 22, Concord Feb. 23, Mason Feb. 24-25. He will also be on the program at the Round-up Institute at Battle Creek Feb. 28 and March 1.



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C D. WOODBURY.—Boots and Shoes, We shoe the students, See ad.

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DUY your Dry Goods and Clothing at H, KOSITCHEK & BRO'S. Dry Goods Store 210 Washington Ave, S. Clothing Store 113 Washington Ave, N.

OUIS BECK.—Clothier. Gents' Furnishings, Hats and Caps. 112 Washington Ave. North.

### CROCKERY AND GLASSWARE.

H. LARNED.-China, Glass and Lamps, 105 Washington Ave, S.

### DENTISTS.

A F. GORDON, D. D. S. M. A. C. '91, U. of M. '01. 218 Washington Ave. S. Phone, Citizens 862.

E. STOFFER, D. D. S. Office 105 Washington Ave, S. Citizens' Phone 1049. Former M. A. C. student,

H. MOORE, D. D. S. Office 411-13 Hollister Building, Lansing, Mich. Citizens phone 475. R W. MORSE, D. D. S. Hollister Block, Room 517. Citizens Phone 52, Bell Phone 396.

D. E. PARMELEE, Dentist, 117½ Washing-ton Ave. S., Lansing, Michigan. Citizens, Phone, office 275; residence, 1440.

### DRUGGISTS.

ROUSER'S CAPITAL DRUG STORE. Up to date. Corner store, Opposite Hollister Block,

ROBINSON DRUG CO., successors to Alsdorf & Son, Drugs and Druggists' Sundries. 102 Washington Ave. N.

### DRY GOODS.

THE JEWETT & KNAPP STORE. Dry Goods. 222-224 Washington Ave. S.

The Fayhawker (December), of Manhattan, Kas., presents a good half tone of the Cook trophy, won by the Kansas Agricultural College at the recent corn judging contest in Chicago.-Ex.

### ELECTRICAL SUPPLIES.

CAPITOL ELECTRIC CO. Electrical Supplies, Telegraph Instruments and Telephones. 321 Wash, Ave., S.

#### FURNISHING GOODS.

ELGIN MIFFLIN.-Ladies' and Gentlemen's Furnishing Goods, See ad.

#### FURNITURE DEALERS.

M J. & B. M. BUCK.-Furniture. Cor. Washington Avenue and Ionia Street. See ad.

#### HACK AND BAGGAGE LINES.

O RDER your hacks for parties at Carr's Hack Line, Livery in connection, 410 Washington Ave. N.

### HARDWARE, STOVES AND TINWARE.

NORTON'S HARDWARE—General Hardware, Stoves, Tinware, Graniteware, Cutlery, etc. 111 Washington Ave. South. See ad.

### INSURANCE.

THE DYER-JENISON-BARRY CO., LTD., Incorporated) Hollister Block. All kinds of the best insurance. Strongest agency in city.

### JEWELERS.

CHAS. A. PIELLA. Jeweler and Optician. 121 Washington Ave. N., Lansing, Mich.

### MANICURE AND HAIRDRESSING.

MRS. O. T. CASE—Manicure and Hairdressing Parlors. Masquerade Wigs for Rent. Switches made of cut hair or combings. The France-American Hygienic Toilet Requisites a specialty. New'phone 118. 2221/2 Washington Ave. S., up stairs.

### MUSIC, PIANOS, ETC.

GRINNELL BROS. Pianos, Organs and everything in the line of music. 219 Washington Ave. N.

### OCULISTS.

CHAS. G. JENKINS, M. D. — Diseases of Eye, Ear, Nose and Throat. Hours, 9 to 12 a. m., and 2 to 5 p. m. Citizens Phone No. 1080, 224 Washington Ave. South.

### PHYSICIANS.

W. HAGADORN, M. D.—Office hours, 11 to 12 A. M., 2 to 4 and 7 to 8 P. M. Office at 212 Washington Avenue S.; home 219 Capitol Ave.

DR. H. W. LANDON. Office and residence, m. A. C. Office hours from 7 to 8:30 a. m., and 12:30 to 2, and 6:30 to 8 p. m. Sunday office hours 4 to 5 and 7 to 8 p. m. Now phone 1560.

DR. OSCAR H. BRUEGEL. Hours 9 to 11 a. m.; 2 to 4 and 7 to 8 p. m. Agricultural College, Mich. Citizens phone 1502.

### PLUMBERS.

SHIELDS & LEADLEY, Plumbing and Heating. 300 Wash, Ave. N., Lansing, Both Phones.

### SPORTING GOODS.

H. LARRABEE. Base Ball Goods, Foot Ball Goods, Tennis, Golf, Guns, Ammunition and Fishing Tackle. 325 Wash. Ave. S.

In the Michigan Inter-Collegiate of Jan. 1, appears an interesting article by Yost on football, also one by Coach Cayou, of Wabash, on "Morals in Athletics."—Ex.