

# The M. A. C. RECORD.

MICHIGAN STATE AGRICULTURAL COLLEGE.

VOL. 8.

LANSING, MICHIGAN, TUESDAY, DEC. 23, 1902.

No. 15

## NOTICE.

FOUND—A fountain pen. Same can be had by identifying pen. Finder Nicolaas Prakken, 121 Grandville Ave., Grand Rapids, Mich.

The M. A. C. Sunday school will have their Christmas exercises and tree Wednesday, Dec. 24, at 4 p. m. All are invited.



## AN M. A. C. MAN HONORED.

Kenyon L. Butterfield, whose portrait is given above, is the newly-elected president of the Rhode Island Agricultural College. He was born at Lapeer, Michigan, June 11, 1868, and is the oldest son of Hon. I. H. Butterfield, ex-secretary of this College. After graduating from the Latin course of the Lapeer high school, he entered this institution and graduated from the Agricultural course in 1891. In the following October he was elected Assistant under Secretary Reynolds. He resigned this position in April, 1892, to accept the editorship of the *State Grange Visitor*. He managed and published this paper until its discontinuance, since which time he has been editor of the Grange Department of the *Michigan Farmer*. This work has taken only a part of his time. He was appointed superintendent of farmers' institutes and College field agent in 1895 and filled this position with marked success for four years. He prepared the act which became the law under which farmers' institutes are now held, and as superintendent organized the present system. He was, while editor of the *Grange Visitor*, active in the legislative work of the grange and the passage of the act enlarging the province of the dairy and food commissioner's office was largely due to his efforts.

During the past three years he has pursued work in the University of Michigan. He was given his Master's degree last June and has nearly completed work for the Doctor's degree. His work in the university has been of such a high order that during this year he was appointed lecturer in rural sociology,

a new course offered in the university.

His election to the responsible position as president of the Rhode Island Agricultural College is not a surprise to those who have been acquainted with his work in past years. In every position that he has filled since graduating from college he has shown marked ability. He is certainly well fitted, both by temperament and training, for his work at the head of the Rhode Island College. He believes in thorough technical training for the farmer and it is understood that the Rhode Island Board will give him full latitude to carry out his ideas in this direction.

We congratulate the Board, faculty and students of the Rhode Island institution on the selection of Mr. Butterfield. They will find him an able leader, a thorough scholar, and withal a frank, clean, manly man. We predict an era of great progress for the Rhode Island Agricultural College.

## WHO SHOULD TAKE THE SPECIAL COURSES AND WHY.

The call for trained men is more urgent today than ever before. The demand for laboring men is itself so keen that many farmers find it quite impossible to secure help to gather their crops and carry forward the regular operations of the farm. Where the farms are large and this demand for working men is combined with the attractions which always attend large ventures, men gravitate towards the place and there is less difficulty in securing them. It is the small farmer who suffers in the competition for the best class of workmen.

For this reason among others there is a strong tendency toward the concentration of farms into fewer hands. There are springing up in various parts of the state large properties, farms of which the acreage is measured not by hundreds but by thousands. To manage these estates there is a call for trained men, for men who understand something of the sciences related to agriculture, but who are trained as well in the school of experience and know how to manage men, and who have good business judgment and can look after the buying and selling. There have come to the college within the past month a large number of offers to young men of this class. These offers are divided into two great classes.

In the first place there is a demand for young men trained in the natural sciences to undertake experimental work for the government either in soils or in forestry. Here college graduates are wanted, men who have devoted their energies while in College to the study of chemistry, botany, physics, and the sciences immediately related to agriculture, and who are skillful in the manipulation of apparatus.

Secondly there is a demand for young men who have had experience on the farm, who understand

every detail of plowing, sowing, cultivation and harvesting, the care of animals and possibly of fruit, who are good judges of stock, know how to feed, to economize the feeding stuffs and secure at the same time the best gains possible or the largest flow of milk, who can care for the animals, diagnosing correctly where the animal is afflicted with any of the common ailments, and knowing how to prescribe and to nurse, all round farmers, who are at the same time, good business men, capable of carrying forward a large business enterprise with profit to the owner. There are scattered through the state of Michigan a large number of level headed, hard working, persistent, courageous young men fitted by nature to satisfy the latter demands. All they lack to give them a start is a short course at the College. These young men are working by the month on farms, or are employed in various capacities in rural communities. Some are teaching in the common schools, although the work is not to their liking, but taken as the readiest means of earning money. Others are in country stores, although never designed by nature to be merchants. Still others are the sons of owners of small farms, where their services could be spared for the doing of this broader and more lucrative work. The College invites such men to come to its halls for a four-year course if possible, otherwise to a short course lasting through six weeks of one winter, if no more time can be spared. It is for such young men that the courses are planned. All young men, therefore, who design to spend their lives on the farm, and who want to make as much money as possible from the farm, and to live as broad lives as possible, are invited to take the one of the special courses that best suits his particular wants.

## WHAT THE SPECIAL COURSES ATTEMPT.

The special courses attempt to give training along certain definite lines. In the matter of live stock, for instance, there is given training first in stock judging with something of the history and characteristics of the various breeds. There is kept in mind what the farmer wants to know and to be able to do, and these wants are met. The hand and the eye are trained to discriminate between the good and the poor beast, and the attention called to the points in which they differ. If a farmer is to make money feeding stock he must know how to buy animals of the right type for the purpose intended. To do this his judgment must be trained. It is not enough to be able to guess closely as to weights, he must be able to select after a short inspection the animals suited to his purpose and to reject the others. Again he must be so well practiced in the art that he has confidence in his judgments and is safe in risking his money on them. The attempt is not made to turn out

(Continued on page two)

## ALUMNI.

'77 and '78. Purdue University has sent out its announcement for the winter school of agriculture. A very handsome hall of agriculture was completed this fall at a cost of \$60,000 and has been equipped at a large expense. It is the finest structure on the university grounds in style, construction and equipment. It contains laboratories and class rooms for practical instruction in dairying, horticulture, veterinary science, general agriculture, soils and animal husbandry, also, the office of farmers' institutes, the agricultural library, rooms of the farm club and grange. Prof. James Troop, '78, and Prof. W. C. Latta, '77, are connected with Purdue University. Prof. McCarl, '90, and Mr. H. Van Norman, '97, are also members of the faculty.

'95. H. E. Ward writes to have his address for the RECORD changed from 66 Glvilia Strasse, Zurich, Switzerland, to 358 Lyon street, Grand Rapids, Mich. On account of ill health he is compelled to give up his work abroad and return home. He has been doing work in bacteriology for the past three months, having gone to Switzerland about the first of September.

## ACTION OF THE AMERICAN PUBLIC HEALTH ASSOCIATION RELATIVE TO THE LATE DR. KEDZIE.

At the meeting of the American Public Health Association, held at New Orleans during the week of December 8th, Dr. Henry D. Holton, of Vermont, president of the association, announced the death of Dr. Robert C. Kedzie, one of the early presidents of the association, and spoke very feelingly of the great value of Dr. Kedzie's service to the cause of public health.

Mr. Henry A. Haigh, (M. A. C. '74) delegate to the meeting from Detroit, Michigan, offered the following resolutions, which were unanimously adopted:

*Resolved*, That the American Public Health Association has received with deep sorrow the intelligence of the death of Dr. Robert Clark Kedzie, one of its early presidents and an active practical and indefatigable worker in the field of public health.

*Resolved*, That this Association places a very high value on the unselfish and untiring labors of Dr. Kedzie in behalf of sanitation and the public welfare, and recognizes in him a superb type of the hardy, hopeful pioneer in preventive medicine, the reward of whose persistent labors is being and will be reaped in better health and happiness by this generation and by generations yet to come.

*Resolved*, That these resolutions be spread upon the records of this Association as an expression of our esteem for Dr. Kedzie as a man and sanitarian and of our belief in the high value of his life to the science of sanitation and to the human race.



## THE M. A. C. RECORD.

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MICHIGAN STATE AGRICULTURAL COLLEGE

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TUESDAY, DEC. 23, 1902.

HAVING exhausted for the time being our stock of ideas for this column we quote from the *Michigan Moderator* some classified errors in English. Doubtless some more errors from this list will be published at a later time. It is hardly questioned that many College graduates make humiliating mistakes in English. Often the effects of early associations show in one's speech in later years. This is the season in which new resolutions are made and here are some errors to be guarded against during 1903:

Way should not be pluralized when it expresses distance. Say, "It was a long way," (not a long ways).

Don't use party for person, except in legal or business phrases. Say, "He is the person that I wished to see," (not party).

When a relative pronoun is used as a subject, it is important to note that the relative agrees with its antecedent in person and number. Say, "He is one of the best teachers that have ever taught in our country," (not has).

Don't say, "a half an hour." Say, "half an hour" or "a half-hour." "I waited half an hour or I waited a half-hour."

Don't use well-posted for well-informed. Say, "He is well-informed," (not well-posted).

Don't use funny when you mean odd or queer.

"But the old three-cornered hat, The breeches and all that Are so queer!"

Ought is a defective verb; hence it has no past participle. Say, "You ought not to do so," (not hadn't ought).

When a verb, taking an infinitive as object, refers to a future act or circumstance, the present, not the perfect, infinitive should be used; as, "I expected to go to Europe," (not to have gone; "I expected to write to you last week," (not to have written)).

Don't use don't for doesn't. Say, "She doesn't dress properly," (not don't).

Don't use try and go for try to go. Say, "I shall try to go," (not try and go).

Somewhat is an adverb; some is an adjective. Say, "My friend is somewhat better," (not some better).

Everywhere is an adverb; place is a noun. Say, "I looked for it everywhere," (not every place).

This, that and real are not adverbs. Say, "It was as long as this or that," (not this long or that long); "It was very cold," not real cold); "I can't jump so far," (not that far).

Don't use just as soon for just as lief. Say, "I had just as lief go," (not just as soon).

## WHAT THE SPECIAL COURSES ATTEMPT.

(Continued from page one)

judges for fairs and exhibitions, county, local, or state, but is safe to say that a young man who supplements the training received here by work in his own herds and elsewhere, and adds intelligent investigation to his training will be well fitted to be a judge at these exhibitions, even if his decisions do not always agree with the prejudices of the owners of the stock exhibited.

With this training in stock judging there is given a course in the diagnosis and treatment of the common ailments of domestic animals and methods of treatment. This course of lectures by Dr. Waterman has proven of immense value to the men who have taken the courses in years past. One young man has written that what he learned from this course of lectures alone has abundantly paid him for his time and expense in taking the whole special course. The attempt is not made to turn out veterinarians, but to give wholesome advice to the young farmers as to treatment of their live stock.

The veterinary work goes hand-in-hand with the lectures by Professor Marshall on bacteriology and hygiene, in which the students are taught the relation of bacteria to the health of animals, and rules are laid down as to the proper stables and precautions necessary to secure good health. The lectures on feeding domestic animals simply bring to the attention of the men the advice of practical feeders combined with the results of the work of the experiment stations. How to feed economically is the question most studied.

On the side of the soil and crops the lectures of Prof. Jeffery and the lectures and demonstrations of Mr. Longyear will open the eyes of the students to some of the methods of nature in converting what appears to be dead soil and its elements into growing and living plants. No farmer can succeed financially who understands live stock alone. He must know how to grow his crops, to feed his stock most economically and without exhausting the fertility of his soil. It is the aim of the special courses to give training along this line and to interest young farmers in the study of the laws of plant growth and the methods of handling the soil.

If any young man, who designs to attend the special courses, desires work in the dairy, he will find here equipment suitable to carry this instruction forward along either line, that of butter making or the manufacture of cheese. He is allowed to elect work in butter making for as many hours per day as he may choose between the 6th of January and the 16th of February. The

work in cheese making immediately follows and continues for four weeks. The young man who desires to be really proficient in live stock work should take some butter making.

It is not out of place for the College to train men for such work, as the manufacture of butter in creameries, or the manufacture of cheese. Already a large number of these factories in the state are managed by men who have taken the special courses. The quality of the instruction along these lines is demonstrated by the success of our men in the sales of the butter and cheese they have made. We invite to these courses the men now engaged in the work rather than men without experience desiring to go into the business to make dairy goods in factories. Prior experience is almost a requisite to a proper appreciation of the course and to the proper use of the instruction given. The demand for young men who had completed our course was far greater last year than we could supply.

The orchardist and grower of small fruits finds his way hedged about and obstructed by a series of difficulties which require training as well as experience to overcome. This training and experience from the selection of varieties and the preparation of the soil, the harvesting of the fruit, packing and selling including a somewhat thorough course in the fungus and insect diseases is gone over in the most practical way in our special course in fruit growing. The College invites to this course, not only the persons interested in growing peaches, other stone fruits, small fruits and vegetables along the western coast, but all young farmers in the state interested even in a small way in fruit growing, to come to the College for six weeks beginning January 6th next. We feel sure that the training they will get in this course will amply repay them for their money and time expended.

The crowded condition of our laboratories prevents the College from farther advertising the sugar beet course. To a limited number of young men, who have a good knowledge of analytical chemistry, a course in technical sugar work will be given after April 1st, 1903.

Yours respectfully,

C. D. SMITH, Dean.

Mrs. Mary J. Winthrop of New York, has made an unconditional bequest of \$1,000,000 to the Princeton Theological Seminary.—Ex.

Class debates are being held at the University of Nebraska.

## BOARD REPORT FOR 1902.

The report of the Secretary of the State Board of Agriculture now ready for distribution contains some interesting facts. The general arrangement of the report is similar to the arrangement of the reports for previous years.

The credit account of the College and experiment station shows a sum total of \$629,399.94. The reports of the various departments show very satisfactory conditions. The marked changes in the courses, and to which attention is called, are the new five-year courses and the new department of forestry.

As regards the freshman class entering in September, 1901, some elaborate statistics have been compiled. The counties of the state are well represented by this class, and the states of Pennsylvania, Illinois, New York, Indiana and California are represented. There is one student each from the District of Columbia, from Ontario Province and from Porto Rico.

The statistics of individual students vary much with each individual. Under the heading, "Proposed Occupation after Leaving College," eighteen indicate a preference for farming, sixteen for mechanical engineering, ten for civil engineering and ten would be mechanics, while many are undecided. In church membership and church preference the Congregational has the lead with the Methodist Episcopal church a close second.

## EXCHANGES.

The annual Y. M. C. A. Student Conference of the different college associations of the coast will be held from December 26 to January 6 at Pacific Grove.—Ex.

President Eliot of Harvard recommends ten hours of study, eight hours of sleep, two of exercise, and four devoted to meals and social duties to students.—Ex.

Dr. Loeb, the famous scientist, is now a member of the faculty of the University of California.

Dr. R. Tombo, Jr., registrar of Columbia University, has published a report indicating the registration in the University for the last five years. According to the report, the total influence of Columbia, including students and officers and excluding 941 pupils in Horace Mann school and 91 in Speyer school, is for 1898, 3,504, for 1899, 4,149, for 1900, 4,756, for 1901, 4,991, for 1902, 5,267.

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# ABOUT THE CAMPUS.

Club A is running this vacation. Miss Avery is spending her vacation in Oberlin.

The horticultural department has just purchased a new Remington typewriter.

Miss Earl, of Howard Terrace, has received many Christmas orders for her woodenware decorated by burning.

The workroom of the old forcing house has been moved and connected with the horticultural laboratory to be used for a tool-room.

Mr. Herbert Patriarche has been engaged for the past two weeks in cataloguing the library of the horticultural department.

A considerable amount of repair work is going on in the machine shops this vacation together with the preparation for next term's work.

Congress during its session last week appropriated \$500,000 to be devoted to the eradication of the foot and mouth disease of the cattle of New England.

The program for the winter term was ready for distribution before the close of the fall term. No marked changes are in evidence as contrasted with the program for the winter term a year ago.

Dr. Beal was in Ann Arbor Saturday, the 20th, conferring with other members at a meeting of the council of the State Academy of Science, the next meeting of which takes place in about three months.

A wind-break has been placed on the west side of the elk park.

Mr. M. L. Dean will have ready in a short time a bulletin on small fruits.

Considerable trouble is being experienced with the various heaters in several buildings owing to the enforced use of soft coal.

Matt Crosby and E. R. Bennett, of '02, have gone respectively to Washington and Storrs, Conn., to take up their new duties.

The Hesperian Society held their regular fall banquet Saturday evening, the 13th. All members were present and a very pleasant spread enjoyed.

At a meeting of the Farmers' Club last Wednesday evening reports were given of the meeting of the State Association of Farmer's Clubs, of the meeting of the American Federation of Students of Agriculture (which the M. A. C. Club recently joined), and of the Chicago Live Stock Exposition.

Messrs. Angel and Chase, owners of the land across the road north of the College campus, expect to complete their brick store opposite the hospital during February. The improvements made by these gentlemen are of interest to the College community. In the brick building, when completed, there will be a meat market and a grocery and confectionery store. The building will also contain a business office. A sewer system is to be constructed in the spring.

Mr. Robison of the experiment station expects to move into Howard Terrace during the holidays.

A quantity of rhubarb and asparagus has been placed in the basement of the horticultural laboratory for winter forcing.

Instructor Michels had a long article in the last *Michigan Farmer*, describing the correct methods for constructing creameries.

Mr. E. S. Good received a visit last week from Attorney Huff, of Gobleville. Mr. Huff had some law cases before the pardon board.

At the meeting of the Michigan Passenger Association at Detroit last week, a rate of one fare for the round trip was granted on all railroads in lower Michigan for the Round-up Institute to be held at Owosso February 24-7, 1903. The tickets will be on sale February 23-4, and will be good to return on February 28 inclusive.

WHEREAS, it has pleased our Heavenly Father to remove from this earth our highly esteemed brother, W. R. Goodwin, be it

*Resolved*, That we, the Olympic Society, extend our most sincere sympathy to the bereaved parents, and be it further

*Resolved*, That a copy of these resolutions be sent to the parents and also a copy be published in the M. A. C. RECORD.

H. K. PATRIARCHE,  
S. B. HARTMAN,  
CLYDE ARMSTRONG,  
Committee.

Prof. Weil's little boy is much improved at the present writing.

Messrs. Good, Lyman and Kenny are making an inventory of the co-operative book store.

The following paragraph was taken from *Science* for December 5th, 1902: "It is noteworthy that in all the standard literature on the Brachiopoda no notice has been taken of the earliest American publication relating to the anatomy of these animals. It is contained in a 'Text-book of Vegetable and Animal Physiology,' by Henry Goadby, published in New York in 1858. One chapter is devoted to the nutrition in the Brachiopoda, and another to a description of their nervous and circulatory systems. Inasmuch as Goadby's observations were based upon original dissections and studies, their claims for a place in the literature of brachiopod research are perfectly valid."

The reader may wonder why this item was copied in the RECORD. My dear sir, you probably do not know that Henry Goadby was Professor of Animal and Vegetable Physiology and Entomology at this College 1857-59. President Abbot often referred to him as a man of remarkable skill in his demonstrations. He could dissect out the nervous system of some small animal, and set it up on the desk like a spider on its legs. In the library is a unique volume (A Text-book of Vegetable and Animal Physiology) written by this professor. On pages 158-160 are illustrations of the brachiopods referred to. W. J. B.

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## MICHIGAN LIVE STOCK BREEDER'S ASSOCIATION.

The 13th annual meeting of this association was held at the Griswold House, Detroit, Mich., on Dec. 16th and 17th. During the first day the time was occupied by meetings of the various cattle, sheep and swine breeders' associations. These organizations after transacting the business which was brought before them, used the balance of the time in discussing important questions relating to the workings of the organizations. In some cases a prepared program had been arranged for, the most notable among these was that of the Shorthorn Breeders' Association, in which a number of the breeders presented addresses, which were followed by profitable discussions.

At this meeting the question, "What is the Michigan Agricultural College doing for the Live Stock Industry of the State?" was discussed. This discussion brought forth some expressions from the members of the faculty present relating to the working of the College, the result being that the work of the institution is now more fully understood by the members present. On the 17th both morning and afternoon sessions were held. During the morning session the following addresses were presented: President's Address, Mr. Robert Gibbons, "Fads, Their Prevalence and Influence in Live Stock Husbandry," Prof. Geo. C. Humphrey, "Live Stock and Crop Rotation," by Mr. L. C. Drake, Weston, Mich. "Evolution in Michigan Agriculture," by Hon. L. D. Watkins, and "Something About Shorthorn Cattle," by F. Jay Lessiter, Clarkston, Mich.

At the afternoon session the following addresses were presented: "Some New Stock Feeds in Mich.," by Prof. C. D. Smith; "Feeding Live Stock by Modern Methods," Prof. J. J. Ferguson, Chicago; "A Plea for the Pig," N. A. Clapp, Wixom, Mich.; "Economy in the Production of Meat," Prof. R. S. Shaw, Agricultural College, Mich.; "Stock Judging at Fairs," E. M. Moore, Orchard Lake, Mich., and "Does the Breeding Industry Need a Revival?" by F. W. Upton, Ovid, Mich.

In accordance with a resolution adopted by the association these papers will be published. The discussions following the papers and addresses were lively and full of interest. The general consensus of opinion of those who have attended former meetings is that there has been a great revival of interest in the association. This was manifested in the increased attendance and the active part taken by such large numbers during the discussions. The question of the necessity of publishing a state live stock breeders' directory was discussed, and this work will be undertaken. This association is doing a valuable work for the live stock industry of the State.

## SOME THINGS GOING ON IN THE HERBARIUM.

The economical trend of the botanical department since the opening of the College, over forty-five years ago, has made it seem unwise to include in its course any instruction in the subject of mosses; still, the herbarium contains a respectable number of these interesting little plants.

Packets of about forty species which were received in the Cooley herbarium have remained unnamed, some of them collected over fifty years ago. Recently the professor of botany packed them off to an expert in Columbia University where they were named, and now they will be pigeon-holed where they belong, each by the side of its nearest relative.

In the summer of 1900 Professor Wheeler collected two hundred and thirty mosses and liverworts which he did not take the time to study and name. These went to Columbia and were named. About fifty duplicates were exchanged for fifty of other species from Europe.

In different parts of the world, experts make a business of collecting sets of fungi for sale to colleges and scientific societies.

From time to time this college has been a subscriber to a considerable number of these collections, and the teaching force has added many more, till now we have not far from 13,000 of these low forms of plants, most of which are of considerable interest to all agricultural students. They are edible or poisonous; they live as parasites on living plants which are cultivated, or on those which constitute our weeds, and thus are of economic value.

Most of these purchased have been received 50 to 100 at a time, each ticketed and pasted in a volume. In this way there is no attempt at classification, and on this account it is rather tedious to find any of them for study or comparison.

After years of deliberation and consultation, Dr. Beal has decided to strip the specimens from these volumes and arrange them on sheets in the herbarium, placing each specimen that is infested with a particular rust, smut, or mildew near those of the same name, making it much more convenient for reference. This rearrangement is now going on rapidly.

Instructor Michels last week was in DeWitt. He contracted for a ton of milk a day for the special courses, to be delivered from that place.

Instructor Michels is making a series of experiments to determine the yield of cheese from milk containing varying percentages of fat.

oom. William Ball is in Grand Rapids. He has a good position as designer with Stowe & Butterworth, plaster mill manufacturers.

99m. Allan H. Stone is located at Tyler, Texas, and is in the employ of the St. Louis Southwestern Railway Company.

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CITY BOOK STORE. Fountain Pens, Drafting Tools, Stationery, Cards, Engraved, Pictures and Picture Framing. Tennis, Football and Baseball goods. Crotry Bros., 206 Wash. Ave. N.

### BOOK BINDERS

GEO. G. BLUDEAU & CO.—Blank book manufacturers. Book-binding of every description done neatly and promptly. 109 Wash. Ave. N.

WAGENVOLD & CO.—Bookbinders, Blank-book makers, Library and Art Bindings, Albums, Pocketbooks, Map Mountings, etc. Back numbers of magazines and periodicals supplied. Bell phone 878. 114 Washington Ave. South.

### BOOTS AND SHOES.

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

### CONFECTIONERY.

ONLY the best candies at the "Sugar Bowl," Cor. Washington Ave. and Allegan.

### CLOTHING.

BUY your Dry Goods and Clothing. Hats, Caps and Furnishing Goods at H. KOSITCHEK & BROS., 118 Washington Ave. N., and 210 Washington Ave. S.

LOUIS 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.

D. E. PARMELEE—Dentist. 218 Washington Ave. S. Phones, Bell 520 office, residence 732.

J. E. STOFFER, A. B., D. D. S. Office 109 Washington Ave. S., Former M. A. C. student.

R. W. MORSE, D. D. S., Hollister Block, Room 517.

### DRUGGISTS.

ROUSEY'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.

SIMONS DRY GOODS COMPANY.—Dry Goods and Carpets. See ad.

DONSEREAUX'S DEPARTMENT STORE is the place to trade. You can get a warm lunch in our cafe for 10c. See ad.

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

### ELECTRICAL SUPPLIES.

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

### ALL MEATS . . . .

May look alike to you, but there is a very great difference in the quality we handle and that sold by some other markets. We handle none but the very best. Like the pudding, the proof of good meats is in the eating. A trial will convince you that you ought to trade with us. We make daily trips to the College. BOTH PHONES. Careful attention given to 'phone orders.

A. C. ROLLER,

Successor to GOTTIEB REUTER, Washington Ave. South.

### FURNISHING GOODS.

E. L. GIN 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.

ORDER 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. New 'phone 118. 222½ Washington Avenue S., up stairs.

### MERCHANT TAILORS.

WOODBURY & SAVAGE.—Tailors. Student trade solicited. Opposite Hotel Downey, North.

JOHN HERRMANN'S SONS, 218 Washington Avenue N.

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THE POST MUSIC CO. Pianos, Organs and everything in the line of music. 219 Washington Ave. N.

### OCULISTS.

JOSEPH FOSTER, M. D.—Eye, Ear, Nose and Throat. Hours 9 to 12 a. m., 2 to 4 p. m. Cor. Allegan St. and Capitol Ave.

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. 1030. 224 Washington Ave. South.

### PHOTOGRAPHS.

C. E. WALTER, M. A. C. I make Photographs; Landscapes, Buildings, Interiors, Flash-lights, Lantern Slides, Transparencies, Medallions and Stereoscopic Views. Developing and Printing for Amateurs. Views for sale.

### PHYSICIANS.

A. D. 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 419 Seymour St.

J. 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.

### PLUMBERS.

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

### SPORTING GOODS.

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