

# The M. A. C. RECORD.

MICHIGAN STATE AGRICULTURAL COLLEGE.

Vol. 9.

LANSING, MICHIGAN, TUESDAY, FEB. 9, 1904.

No. 20

## THE ROUND-UP.

The programs for the Round-Up Institute are now ready for distribution. Prof. Taft has been very fortunate in securing such an array of talent. Ex-Senator W. A. Harris of Kansas, Mr. Hamilton of the U. S. Department of Agriculture, Mr. Farnsworth and other men of prominence.

## HORTICULTURAL CLUB.

A goodly number of students listened to an interesting talk on Peach Growing in Central Michigan, by C. P. Reed, '01, last Wednesday evening.

Although Central Michigan is out of the peach belt of the state, yet throughout the entire state are scattered good peach growing communities. The peach in Central Michigan, instead of thriving best on a sandy soil as in the western part, does best on a clay loam. The methods of planting and general care are similar to those employed in the peach belt. The orchards are freed from all weeds or material which might furnish a harbor for mice during the winter. These do great damage to the trees if given opportunity. The pests which the grower has to contend with are, the borer, curl leaf, brown-rot and black spot. The black spot affects the appearance of the fruit but does not affect the eating qualities. Most of the fruit of this part of the state is sold in local markets, which are often flooded with inferior fruit from large peach markets.

The Club has been having very good talks this term with increased attendance. These good things will continue during the year.

## Y. M. C. A.

Mr. E. N. Bates led the Thursday evening prayer meeting. Theme: "The evangelization of the world in this generation." Messrs. George McMullen, O. B. Burrell and George White each discussed certain correlated divisions of the above topic. The discussions were good and the meeting was a success.

Rev. R. C. Dodds of Lansing spoke in chapel Sunday morning from Psalm 119: 9—"Wherewithal shall a young man cleanse his way? By taking heed thereto according to thy word." Dr. Dodds showed the necessity of some wiser and older counsel to guide the lives of young people. This counsel may be obtained from the Bible, directly, and indirectly from the lives of older persons of experience. The sermon was interesting and helpful and the attendance good.

Prof. C. D. Smith gave a very interesting talk before the union meeting of the Y. W. and Y. M. C. A. Sunday evening.

The address consisted in a character sketch of Roger Williams, founder of Rhode Island. Roger Williams was the first propounder and apostle of true liberty of conscience. He was banished from the Massachusetts colony because of his

dangerous views. Sheltered and befriended by the Indians, he later founded Providence, R. I. The address gave an account of what some of the world's benefactors have endured that we might enjoy freedom.

## FARMERS' CLUB.

At the regular meeting of the Farmers' Club a large number of short-course students were present and a marked degree of interest was shown by them. R. C. Potts read a paper entitled "The Future Live Stock Industry of Michigan," in which he spoke of the promising future for live stock in this state, and also of the better condition of the soil in Great Britain where live stock was raised as a primary object as compared with that of Michigan, where the raising of crops has been carried on more extensively than producing live stock. In the discussion that followed the fact was brought out that thoroughbred cattle could be purchased almost as cheaply as cattle raised for slaughtering.

## ATHLETICS.

M. A. C. played the teachers at Ypsilanti last Saturday. The game was one-sided and lacked any special features. Ypsilanti secured one point on fouls in each half. M. A. C. scored 22 points.

In the college armory, the juniors defeated the sophomores 17 to 7. The juniors and freshmen will play for the championship in the near future.

The in-door track meet between the freshmen and sub-freshmen was an interesting contest. Cox and Manning scored the most points for the freshmen while Steadman, Ashley and Small did well for the sub-freshmen. About 20 took part on each side. The final score was 31 to 28 in favor of the freshmen.

The interest in athletics is very good this winter. M. A. C. is certain to have some excellent athletes this spring.

## ORATORICAL CONTEST.

The seventeenth oratorical contest was a decided success, both in point of attendance and general excellence. Pres. Knickerbocker called the meeting to order and after a brief sketch of the association announced the first number on the program, a piano duet by Miss Freyhofer and Miss Mack.

The Hero of Khartum, by W. S. Merick of the Columbian Society, was the subject of the first oration. A brief review of Chinese Gordon's career from Sebastopol, through China and into Egypt was given. The strong elements of character were emphasized.

H. W. Geller, of the Phi Delta Society, had chosen for his subject, "Justice to the Jew." He reviewed the charges frequently made against the Jew and showed them to be un-

founded. The Jew was next considered in the fields of patriotism, poetry, art, music, science, law, and of finance. Mr. Geller manifested much feeling and interest. His foreign accent was quite noticeable, however. Mr. Geller would rank well as an orator in his native country.

Alexander Hamilton's career was the subject chosen by Miss Elva R. Davis of the Thematic Society. The history of the time, the intellectual giants of the revolution, the work of Hamilton during the war and his efforts to secure the ratification of the constitution by New York were taken up in order. He was characterized as the man who had maintained our freedom.

Miss Keeney of the Sororian Society gave an account of the life and work of Father Marquette. The singleness of his purpose and the purity of his life as well as his struggles at exploration and sacrifices to bring the "Good Message" to the Indian were given due attention.

H. D. Hahn of the Union Literary Society selected Bolivar, the liberator of South America, for his subject. The oppression in the Latin-American countries, their liberation and the heroic work of Bolivar to unite the different countries, resulting in his banishment and death, were given due prominence.

After a vocal solo by W. L. Kimball and his response to a hearty encore, D. A. Gurney, of the Olympic Society went through the stirring scenes of Waterloo. Napoleon's life, the battle and its effect upon the world were portrayed.

R. C. Fowler, of the Hesperian Society discussed "Our Mercenary Spirit." Brain and Brawn were contrasted and the present greed for gain, success as measured in dollars and cents, and corruption in politics were described.

Miss Bessie Bemis of the Feronian Society gave an account of the life, character and time of Martin Luther. The condition of the church, the conflict in ideas and the stand taken by Luther were considered. The climax was Luther at the Diet of Worms and the effect of Luther's decision on Europe and the world in general.

A clarinet solo by J. H. Prost was enthusiastically applauded and brought out a response. The M. A. C. Orchestra then gave several enjoyable selections during which time the judges rendered their decisions. The result was announced by Supt. Sterling of Lansing who stated that he had attended many similar contests in Michigan Colleges and at the University but that the present contest in point of interest and merit was equal to any of them. The final result of the judges on composition and on delivery gave Miss Elva R. Davis first, Mr. D. A. Gurney second and Miss Bessie Bemis third. The contest was close throughout and to lose is no dishonor. The girls gave the boys a run for their life and are to be congratulated. Miss Davis will represent M. A. C. at the Inter-

(Continued on page 2.)

## ALUMNI.

With '71.

B. E. Benedict is associate editor of the *Farm and Live Stock Journal* published by the Detroit Free Press Co. Robert Gibbons, for 30 years editor of the *Michigan Farmer*, is editor of the *Journal*. The new publication starts with good articles on Rotation of Crops, Ginseng Culture, Fertilizers, Live Stock, Orchard and Garden, The Apiary, The Household, Poultry, Dairying and the Horse. Short stories, market reports, general news, and two columns devoted to letters and puzzles are also found. The editorials are crisp, suggestive and timely. The *Journal* has an excellent board of editors and will be of great value to the general farmer or to those engaged in some special division of agricultural work.

'91.

Pres. K. L. Butterfield, of the Rhode Island Agricultural College, has been appointed to write the history of the development of agriculture in the U. S. for the Carnegie Institute. He recently gave an address on "The Education of the American Farmer" before the State Board of Agriculture at Middleton, Conn.

'92.

Leander Burnett is assistant electrician at Pittsburg, Pennsylvania, for the Pennsylvania R. R. Co. He says that his work is pleasant and has some prospects. He says that the Penn. R. R. Co. is something like the U. S. Army. Promotions are usually the result of death or resignation. Mr. Burnett says—"It always gives me great pleasure to recommend my Alma Mater to any and all who are likely to be interested in schools—good schools. I find myself leaning on the experiences gained there continually." "Burney's" friends at M. A. C. are legion. All remember him as a crack baseball pitcher, an all-round athlete, a student of ability and every inch a man. His address is Avalon, Pa.

With '96.

F. T. F. Stephenson, Ph. G., M. D., is a research chemist and physician in Detroit. His laboratory is at 258 Antoine street. He has recently advised several young men to investigate M. A. C. with a view to enter next fall.

'00.

Bertha Malone is teaching geometry, civics and German in the high school at Centerville, Iowa. The enrollment is 230 and the work has been very pleasant. The city has seven soft coal mines, several hundred negro miners and not a saloon. Miss Malone visited at Prof. Noble's some time ago and had a very pleasant chat about old times at M. A. C. Prof. Noble is the head of the department of English at Ames, is working as hard as usual and is meeting with marked success.

THE M. A. C. RECORD.

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

EDITORS.

G. MASSELINK, MANAGING EDITOR.

ASSOCIATE EDITORS:

H. N. HORNBECK, '04a. L. T. CLARK, '04a.

C. D. STERLING, '05m. ANNA PICKETT, '04a.

BESS K. PADDOCK, '05w.

G. F. TALLADAY, '05a.

R. C. POTTS, '06a.

GRACE BRAHAM, sp. w.

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, FEB. 9, 1904.

ORATORICAL CONTEST.

(Continued from page two)

collegiate contest at Adrian. Her oration was a finely finished production, contained a climax which was well brought out. Miss Davis has perfect control, a good voice and makes a fine appearance. Here is to her success at Adrian.

All the contestants did well. The Department of English deserves very favorable criticism. The ability of each orator was well brought out and everything passed off smoothly. Miss Tyler in behalf of the Association presented the medals in a very neat and acceptable manner.

B = Litmus blue and milk unchanged.

A + B = Litmus wholly reduced excepting a very thin stratum on surface. Milk has formed into a solid curd.

72 Hours After Inoculation.

A = Litmus red throughout. No apparent change in milk.

B = Litmus blue. Milk peptonizing slightly on immediate surface.

A + B = Litmus red throughout. Milk solid curd and whey separated.

95 Hours After Inoculation.

A = Litmus reduced at bottom, red above, and milk beginning to lopper.

B = Litmus partly reduced. Milk is peptonizing rapidly.

A + B = Same as at 72 hours.

The difference in time of loppering of A and A + B, fifty-eight hours, is not so great in this test however in a dozen or more trials, identical in every particular, I have not found any passing these limits. It is fair to conclude that so far as the naked eye can note changes in litmus milk and milk without litmus, there must be differences in the cultures A and A + B and that A + B loppers much more rapidly than A. Further when this is carried on in the same manner with milk taken from a cow by milking into a narrow mouthed sterilized flask and not sterilizing the milk at all, but simply making our inoculations as in previous cases, the results are in main the same, especially so far as loppering of A and A + B are concerned. I suspect, moreover, that bacteria present in such milk exert a marked influence, for I find that the courses run by the cultures A, B and A + B are in some details different in character. This is another open and suggestive field, however, to be pursued at our first opportunity.

So constant and uniform have been the above results that after many trials I feel satisfied. Others whom I have incited to try have also met with like conclusions.

In the study of acidity of the same cultures, we find that B remains about the same for some hours after inoculating, but after standing several days becomes strongly alkaline, passing in the alkaline direction from the neutral point about as many degrees as A passes in the acid direction. Further than this, culture B need not be taken into account. The development of acid in cultures A and A + B may be advantageously added.

Table with 3 columns: Time (0, 24, 44, 68, 92, 116, 142 hrs), Cult. A, Cult. A + B. Shows acidity levels (e.g., 18°, 20°, 28°, 64° lop'd).

The acidities in the above records verify the previous gross observations. It appears characteristic of A + B to make a very rapid rise in acidity immediately after twenty-four hours, while A progresses slowly and steadily. Another trial of acidity is added by way of confirmation, although all run very uniformly, much as in the above record.

Table with 3 columns: Time (0, 23, 49, 72, 96, 121 hrs), Cult. A, Cult. A + B. Shows acidity levels (e.g., 18°, 24°, 38°, 56° curd'n).

The more rapid development of acid in A + B indicates the same results obtained from the gross tests and also points to a more rapid souring of milk in the combined culture.

The next natural question is, do the lactic acid bacteria increase more rapidly in the combined culture A + B than in A? Many counts of bacteria have been made in these cultures at different hours during the progress of the changes going on, and they all plainly show a more rapid increase of lactic acid bacteria in the combined A + B culture than they do in culture A. At the time of loppering then the members show their greatest contrast, we find A : A + B = 27 : 1614. Again in another exhaustive count the proportion stands thus: A : A + B = 271 : 1537. These counts again bear out what has been stated heretofore.

It is also very noticeable that germs of culture B, as they develop in the combined culture A + B, die out completely but gradually before the 50th hour. In the first hours they predominate but soon lose their ascendancy, leaving however a distinct influence in their wake and also a perceptible odor peculiar to this culture.

If this associative action is borne out with other similar micro-organisms when grown in the presence of lactic acid bacteria, the significance is great, for it will have a direct and practical application to dairy operations, in the matter of pure milk supply, souring of milk, starters and their management. Before further discussion, I am desirous of ascertaining how far reaching this may be and this can be accomplished by extensive experiments only. The conditions must now be greatly varied and the various germs usually met with in the dairy must be tested in this associative function before conclusions should be drawn for guidance.

ADDRESS OF DIRECTOR BREWER BEFORE THE GENERAL TEACHERS' MEETING ON TUESDAY, JAN. 26.

In writing this paper to offer to you tonight, I divided the subject into two distinct parts. First I will try to give you an outline and description of the work my department is doing with the young men of our college. The second part of my paper will take up the subject of college athletics in general and their place in and relation to the college and its work.

It is the general agreement among scholars that each individual in coming to adult life must pass through stages of development corresponding to the development of the race from the earliest forms. This view of human origin puts emphasis upon physical training for it has been through physical struggle of various kinds that the body as well as the mind has come to its present structure and functions. The cultivation of the body is then a necessary antecedent which must accompany and be basal to all development of mind and character. Among animals and savages this training of the body is carried on in an unconscious way by means of the natural plays and sports of each species, but with the advancement of civilized life we are seeing a new condition. We are compelling children to go to school earlier and earlier in life and at school they must sit still. They must go to school for more and more months and more and more years so that the natural activity of childhood is being naturally lessened. As a result of these changes of life we are finding with alarming rapidity that individuals, especially from the student class, come to adult life with inferior bodies and that deficient vigor as well as lack of control, which is everyone's right. Coincident with this increase in school life and the consequent lack of physical exercise is a growth in city life. One hundred years ago but three per cent. of our population lived in cities. Today there is a majority. City life has less opportunity for muscular exercise than does country life.

Aristotle, more than 300 years before Christ, said: "The highest object of man is the attainment of happiness and the highest happiness is to be had by perfect virtue; neither perfect happiness nor perfect virtue can be had without perfect health. The end of life and therefore of education is the attainment at once of intellectual, moral and physical virtue."

If we cannot reach the ideal we can aim high. The healthy brain is found only in the body whose physical integrity is beyond doubt, and brain work or mental activity depends to a very great extent on three important things—good respiration, good circulation and good digestion. The power of any young man to perform work, whether physical or mental, depends upon the amount of energy stored up in the cells of the brain, and when this energy is used up the man is used up too. A healthy body furnishes pure blood to the brain, which in many cases will compensate for the lack of

(Continued on last page.)

A PRELIMINARY NOTE ON THE ASSOCIATIVE ACTION OF BACTERIA IN THE SOURING OF MILK.

DR. C. E. MARSHALL.

The second series:

23 Hours After Inoculation.

A = Litmus slightly reduced at the bottom, otherwise red. No change in the milk.

B = Litmus blue and unchanged.

A + B = Litmus completely reduced but becoming red on shaking a little. The milk is unchanged in appearance.

47 Hours After Inoculation.

A = Litmus reduced at bottom, red above. Milk unchanged.

"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



## Hardware

OF ALL DESCRIPTION.

## Stoves

OF ALL SIZES.

Our Goods are Right

Our Prices Low

College bus calls regularly.

Telephone your orders.

**Norton's Hardware,**

111 Washington Ave. S.

## Furniture...

Headquarters

COMPLETE LINE OF  
FURNITURE FOR  
STUDENTS' ROOMS

Canvas Cots at 95c. Woven Wire Cots at \$1.50. Woven Wire Springs at \$1.50, \$2.00, and \$2.50. Mattresses at \$2.00, \$2.50 and \$3.00. Tables at \$1.50 and \$1.35. Chairs at 50c up.

All goods delivered  
to your room free.

**M. J. & B. M. Buck.**



*This Cut represents one of the many*

### New Styles in Men's Hats

*which we now offer for your inspection. Nothing but latest styles and best qualities find place here. Same applies to our neckwear and cap stock—they are up-to-date in every respect. Student patronage solicited.*

**ELGIN MIFFLIN**

THE JEWETT & KNAPP STORE

## Lansing's Low Priced Reliable Store

Every Department full of New Fall Goods.

New Dress Goods, Silks, Laces, Gloves, Hosiery, Underwear, Silk and Cotton Shirt Waists, Muslin Underwear, Dress and Walking Skirts, Tailor Made Suits, and Jackets.

We also carry a Complete Stock of Lace Curtains and Draperies.

**Jewett & Knapp,**

222, 224 Washington Ave. S.

Lansing, Mich.



## The College Girl

admires a Perfect Shoe, Perfect in Fit and Finish. Ask for

### Our 3<sup>00</sup> Shoe

Vici Kid, Velour Calf, Patent Colt.  
All Leathers and Many Styles.

Take advantage of the best. It is your duty. Call at our store.

**C. D. WOODBURY,** HOLLISTER BLOCK.

## ABOUT THE CAMPUS.

A Sororian Society pin has been found. Owner call for same at the Secretary's office.

The dairy department makes about 100 pounds of butter a day. The special students do the work and thus secure constant practice.

J. A. Larabee of Lansing presented the Y. M. C. A. with a regulation sized ping pong table which is now in the Association Rooms.

Mrs. Dr. Edwards returned from Virginia about ten days ago. Her many friends will be pleased to learn that she is much improved in health.

Mrs. C. D. Smith is much improved. She is able to be up several hours of the day. The prospects for a fairly good recovery are excellent.

M. A. C. has some of the finest violets found in the U. S. They have been developed by careful selection covering a period of several years.

A formal dancing party, given by the Union Literary Society on Feb. 6, was largely attended and highly enjoyed by all present. Mr. and Mrs. Thomas Gunson were the patrons on the occasion.

The Columbian Literary Society entertained their lady friends Saturday evening, February 6. Messrs. Robinson and Netzorg furnished the music for the dancers, while those that did not dance had a very animated time playing table football, pit and throwing bean bags.

Prof. and Mrs. Weil kindly acted as patrons for the evening.

Prof. C. D. Smith gave three addresses before the Ohio State Dairy Association which met at Columbus last week. Fact and fancy in dairy form, the essentials in the production of pure milk and the fertilizer side of the dairy business were discussed. The meeting was well attended. Prof. Smith was asked to speak again next year.

This is the last week of the first six weeks of the Short Courses. Nearly one-half of the students will remain six weeks longer. This indicates the interest that has been manifested in the work throughout the course. All courses have been unusually successful. The students are more than pleased and the professors speak highly of the character of the work done. The general standard of the students has been above the average.

The mechanical department is now on a commercial basis. All articles are finished, either by students or by experts hired for that purpose. The result has been that the students are manifesting increased interest in the work. An order for twelve wood lathes has been given to the foundry. An engine has been remodelled and repaired and numerous other things have been made. The shops are now, in fact, a large factory.

The Debating Club met Feb. 4, and the question: Resolved, That the farmers of the United States should combine to control the prices

of their products, was debated by A. A. Rosenberry and H. C. Buchnell as affirmative speakers, and A. N. Robson and R. C. Potts as negative. The decision of the judges was 2 to 1 in favor of the negative. The question for debate this week, Feb. 11, is, "Resolved, That labor unions are detrimental to the welfare of the general public."

Prof. and Mrs. E. S. King are entertaining a new student in Voice Culture. The young lady arrived on Feb. 3 and is making remarkable progress. Since Prof. King's time is pretty well taken up during the day, the parties interested have decided to use the hours from 9 p. m. to 5 a. m. The candidate's voice is said to be exceedingly strong, of good quality, well modulated and capable of reaching a high pitch. She will undoubtedly prove a hard competitor in future oratorical contests, but is still deficient in English.

### ALUMNI.

'95.

R. C. Fisher is attending the Hahneman Medical College in Chicago and also teaches chemistry there.

With '99.

H. W. Wigman is agent for the Canada Life Insurance Co., with headquarters at Lansing. He has a farm south of Lansing and makes a specialty of Berkshire pigs. He keeps nothing but pedigreed stock

and has made a success of the business.

'01.

N. A. McCune has been elected editor of the Alpha Nu Society publication at the University of Michigan.

'02.

W. K. Wonders is considering the feasibility of securing a masters degree in economics at the Michigan University. He is specially interested in rural economics. He is now in the Bureau of Plant Industry, Washington, D. C.

### INDIANA STOCKMEN'S CONVENTION.

James Troop, '78, professor of horticulture and entomology in Purdue University, gave a lecture on "The Insect Enemies of Corn," illustrated by specimens of the insects and with outlined treatments for each. W. C. Latta, '77, professor of agriculture at Purdue and H. E. Van Norman, '97, of the dairy department, also made addresses. Prof. P. G. Holden, '89, of Ames, Iowa, gave a series of addresses on "Corn Breeding and Growing" which *The Breeder's Gazette* calls the feature of the convention. M. A. C. boys some way or other have the ability to hold their own wherever they are. M. A. C. has representatives at nearly every convention dealing with agriculture or allied subjects from Maine to California.

ADDRESS OF DIRECTOR BREWER.

(Continued from page 2.)

power to apply the mind. We all know the student who is deficient in health cannot compete with the one who possesses a healthy body.

The world's greatest educators, from Plato to the present time, have recognized the value of activity or exercise in one form or another as necessary to success in learning. No matter what his occupation, lawyer, minister, mechanic or farmer, he gets ahead who combines strength of body with a healthy mind. The body and mind are interdependent, they act and react on each other and the development of one not only helps the other, but is imperative, if the man is to be well equipped for life.

For these reasons as well as for others, colleges, high schools, and others interested in the developing of the boy into the man, recognize that it is necessary to give particular attention to the development of the body. Today eighty-five per cent of our colleges recognize this need by requiring all of their students to take a more or less rigid course of physical training or its equivalent athletics.

In our institution physical training is not demanded of the young men. However to take its place we have military drill and optional physical training and athletics. During the fall term the work consists almost entirely of football. In our first or college squad we had enrolled about forty. In addition to these we had five class teams of from fifteen to twenty men each, making the total in this sport during the fall, from 100 to 125. I will not discuss the game now, but the general subject of football as a sport and its relation to the college and its life I will take up a little later.

The winter term, while the work does not show in comparison with the open athletic season, I consider the most important of the three terms for the reason that during the winter months our young men naturally get less exercise than at any other time. This term I have enrolled nearly 300, or about one-half of our young men. The several lines of work among which these are divided are track athletics, comprising all the sprinting events, hurdles, jumps, weights, etc., base ball, basket ball, wrestling and a gymnastic squad. In addition I am offering a class, open to all students, but especially planned for those young men who do not take an active part in any of our athletic sports. The work in this class consists of Indian clubs, dumb bells, free arm and breathing exercises and such other work as shall tend, not so much to develop big muscles, as the promotion of health and vigor. In this connection I would like to suggest, that I believe the weakness of our system and of all optional physical training systems is that the physically weak and inactive boys, the boys to whom the work would be of the most benefit are the ones who never report.

The work of the spring term, while not yet planned, will consist mainly of those sports in which we meet our sister colleges in preliminary contests through the term and finally coming to a climax in the annual Field-Day which is held generally the first week in June. The sports are divided into four

general heads, namely, Track, baseball, in-door and tennis. Although no one of these can be compared with football, as a whole the spring is the most beneficial and busiest of the athletic seasons, on account of the greater numbers which the different sports attract and because it is the pleasantest season for work. As a technical discussion of the different sports will hardly prove interesting I will devote the next portion of my paper to college athletics in general, their effect on the individual and the college and their place in the work the college is designed to do with the young man.

I am aware that there are reserved old maids, cranky old bachelors and foolish parents who are down on manly sport and general athletics and they don't know why. But I believe that anything that helps to build up young manhood, strengthen, tone up and develop the system, and foster a feeling of independence, reliance, and self-confidence as athletics do, should have the unqualified support of all lovers of the greatest of God's work—man-kind. It is a fine thing to develop the mind, but the great value of athletics lies in the fact that they develop the character. I think everyone is agreed that the great good that comes from a college course, comes, not from what is actually learned from books, but from the training received—how to work, how to win. Is not this just what athletics do—and a little more strenuously too—than ordinary lessons? Pres. Arthur T. Hadley of Yale, said in a speech recently: "I am in favor of college athletics in their broadest possible sense. Nobody appreciates more highly than I do the value of athletics in a university or college. I value them not chiefly for their physical effect, though that is very valuable, but more for their moral effect, for their effect on the moral fiber of the individual. The moral fiber of the individual is what tells in this world."

The President of Lafayette College has stated that college athletics and especially football have done more to purify, dignify and elevate college life than any other single influence in the last quarter of a century. No one who is conversant with the inside history of the schools and colleges of this country and England will question the truth of this statement. With this systematic outlet for the animal spirits in young men the old forms of disorder have almost disappeared. Let anyone compare the college escapades of twenty-five years ago with those of the present time, and he will confess that the cause of good morals has been vastly advanced by systematic athletics and that clean living, regularity of life and their resulting vigorous manhood have become a necessity because of football and other college sports. Group young men together and whether in the city or country, in college or out of it, their appetites, vitality, and love

(Concluded next week.)

J. H. LARRABEE

325 Washington Ave. S.

- Indian Clubs
- Dumb Bells
- Striking Bags
- Wrestling and Gymnasium Clothing
- Whiteley Exercisers
- Skates
- Checkers
- Chess

It's Record shows it to be

THE POLICY HOLDERS' COMPANY

The Mutual Benefit Life Insurance Co.,

OF NEWARK, N. J.

CHAS. B. COLLINGWOOD, District Manager,

Agricultural College.

Lansing Office, 100 Hollister Block.

WHEN IN NEED OF Society of Dance Programs

CALL ON

Lawrence & Van Buren Printing Co.,

122 Ottawa St. E. Lansing, Mich.

DIRECTORY

LANSING BUSINESS and PROFESSIONAL MEN

The names in this Directory, as well as those of all our other advertisers, are of reliable parties. We hope that the faculty and students will take pains to patronize those who patronize us.

BARBERS.

M. A. C. BARBER SHOP, Rooms in New Bath House. H. A. Sias, Propr.

BOOKS AND STATIONERY.

A. M. EMERY, 116 Wash. Ave. N. Books, Fine Stationery, Engraved Calling Cards, Fountain Pens, Pictures, Frames. Fine Framing a Specialty. New store. New Stock.

CITY BOOK STORE. Fountain Pens, Drafting Tools, Stationery, Cards Engraved, Pocket Books, Card Cases and Bibles. Tennis, Football and Baseball goods. Crotty Bros., 206 Wash. Ave. N.

BOOK BINDERS

GEO. G. BLUDEAU & CO.—Bookbinders Account book makers, paper ruling, library and fine art bindings, file boxes, map mounting, albums, pocket books, etc. Citizens phone No. 56. 109 Wash. Ave. N.

WAGENVoord & CO.—Bookbinders, Blank-book Makers, Library and Art Bindings, Albums, Pocketbooks, Map Mountings, etc. Back numbers of magazines and periodicals supplied. Bell phone 378. 109 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," Washington Ave. S.

CLOTHING.

BUY your Dry Goods and Clothing, Hats, Caps and Furnishing Goods at H. KOSITCHEK & BROS., 113 Washington Ave. N., and 210 Washington Ave. S.

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

CROCKERY AND GLASSWARE.

H. 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.

J. E. STOFFER, D. D. S. Office 105 Washington Ave. S. Former M. A. C. student.

R. W. MORSE, D. D. S. Hollister Block, Room 517. Citizens Phone 52, Bell Phone 396.

N. H. MOORE, D. D. S. Office 411-13 Hollister Building, Lansing, Mich. Citizens phone 475.

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.

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 GOTTLIEB REUTER, Washington Ave. South.

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.

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. 222 1/2 Washington Ave. S., up stairs.

MERCHANT TAILORS.

JOHN HERRMANN'S SONS. 218 Washington Avenue N.

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

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. 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.

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.

D. R. 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.

D. R. 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.

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