The M.A.C. RECORD.

MICHIGAN STATE AGRICULTURAL COLLEGE.

Vol. 9.

LANSING, MICHIGAN, TUESDAY, APR. 19, 1904.

No. 30

NOTICE.

Members of the King's Daughters will kindly have their pound at Higgs & Burton's by the 21st.

NOTICE.

Charles D. Hurrey will be at M. A. C. next Saturday and Sunday and will address the union meeting of the Y. W. and Y. M. C. A. in chapel at 7 o'clock. Mr. Hurrey is well and favorably known at M. A. C., and will be greeted with a large audience.

NOTICE.

Students are advised to write their names in each book purchased and to have a private mark on one or more pages so that in case the book is lost its identification can be established. Reports have come in recently of losing books during the dinner hour. Mistakes occur, so do accidents. Names on the first page are easily removed. Have a mark on pages.

DEBATE.

The third annual debate with the Normal College of Ypsilanti will be held in the armory at 7:30 p.m. next Friday. Ypsilanti has chartered a special and 200 students will accompany the debating team. M. A. C. has the affirmative on the restrictions on the franchise in Mississippi and will be represented by Messrs, Anderson, Gardner and Johnston. The Normal debaters are Miss Mabel Miller and Messrs. Herald and Reinhold. The debate will be interesting and should be supported by the students in large numbers. An admission fee of 25 cents will be charged in order to defray the expenses of the contest. The Normal has shown an unusual amount of interest in this debate and M. A. C. should not be behind in this respect. Do not let the result of the Michigan - M. A. C. game prevent your presence at the debate. If we win both contests we will celebrate.

BASEBALL.

The first scheduled game of the season was played at M. A. C. last Thursday. The day was cold and not suited to fast playing. Detroit College, however, was outclassed at every point. M. A. C. played a much better game than with Howell. The batting and base-running were especially improved, Hyde allowed so few hits that the fielding could not be judged. Chapman throws to second like a shot and Canfield or Armstrong is always there to catch the oval and put the runner out of business. The attendance was fairly good but the game was too one-sided to prove exciting. No Detroiter saw second until the fifth inning and none third until the eighth. In the ninth, two men

walked, the third made a hit, the bases were full, the fourth made an in-field hit which should have put out the man running home but instead was thrown to first but not so as to put the runner out. Before the inning was over two Detroiters had crossed the home plate which left the score 12 to 2 in favor of M. A. C.

SCORE:						
M. A. C.	AB	R	Н	PO	А	E
Millar 3	3.	. 3	ī	2	I	τ
Canfield 2	5	I	2	1	3	I.
Chapmanc	5	2	3	12	1	0
Armstrong s .	3	2	I	2	2	0
Towner r , .	ĩ	O	T	o	0	o
Wilcoxr	3	D	ò	0	0	0
Maynard m :	2	Ô	0	Ō	0	Ø
Ellsworth m .	3	2	2	0	0	1
Bowditch I	4	0	0	0	0	0
Millar, F. C., 1	T	0	0 0		0	0
Rasmussen 1	-5	0	0 7		τ	I
Burke 1	2	I	0	3	1	0
Hydep	5	I	ĩ	0	6	0
		-	-	-		-
	40	12	11	27	15	4
Detroit College						
Sullivan 2	3	o	0	0	0	0
Miller r	5	Q	T	6	0	2
O'l'oole I	3	0	I	2	I	ĩ
Kalich m	4	0	0 I		0	I
Filburn r	4	0	I	1	0	0
Parker s	1	I	0	4	3	2
Oldani 3	4	0	T	2	I	1
Linsky c	4	0	0 11		3	2
O'Haene p	2	I	0	0	1	0
	-	_	-	-	_	-
	30	2	3	27	9	9
	1	2 3	4 5	67	8 9	R
M. A. C		1 2		0 2		12
Detroit College	0	0 0	0 0	0 0	0 2	2
Hit by pitc	hed	hal	-by	Hyd	ie a	hy
					Hyde	
o mene 1	ade	- 1011	Sterra.	1214	yuc	1.00

O'Haene 6; two-base hit-Towner; threebase bit-Millar; home-run-Chapman; struck out-by Hyde 9; by O'Haene 9; passed ball-Chapman 1: double play-Millar to Rasmussen to Millar; time of game-1:50; umpire-Close of Lansing.

U. OF M. GAME.

Michigan comes here Friday to play M. A. C. Wendell, their strongest and only real pitcher, will undoubtedly be in the box for the visitors. M. A. C.'s line-up has not been decided definitely, but will be approximately as last Thursday. Hyde or Millar will do the twirling, depending on which man shows the best condition that day. Chapman and Canfield will do the catching. This is the most important game of the season. Extra cars will be run from Lansing and a large crowd is expected. Michigan plays all this week, beat Chicago, who were considered the strongest team in the west, last Saturday and will come to M. A. C. in excellent condition. Unless it rains too much, the game will be played in the Athletic Field. Byron, of Detroit, will umpire the game. Every student should be out as well as the faculty. Ypsilanti will send a large delega gation to the debate which will also attend the game in the afternoon. The M. I. A. A. Board has changed its place of meeting to M. A. C. in order to see the game. Michigan will do all in her power to obliterate the defeat of last year. M. A. C. will work just as hard to duplicate

last year's victory. The battle will be a royal one. Come out to cheer and to help defeat the university!

Y. M. C. A.

Mr. R. E. Haines led the Thursday evening prayer meeting. Subject, "How Christ Makes Use of Common Lives." Reference, Mark 14:12-16. Messrs. E. H. Adams and R. F. Bell led in the discussion of the theme. The meeting was one of helpfulness and profit to all present and was well attended.

Rev. W. P. French, of Lansing, conducted chapel exercises Sunday morning. Text, Ephesians 3:15. Theme, "The Christian Family Universal." All who own allegiance to Christ belong to one great family, of which God is the common Father, and His son the elder brother. The theme was interestingly presented and very instructive. The union meeting of the Y. W.

and Y. M. C. A. Sunday evening was addressed by Mr. D. R. Sutherland, division superintendent of the Michigan Central R. R. Mr, Sutherland contrasted the railroad time card and the Christian's time card, the Bible. He showed many points of similarity, one of the most important being the mastery of the time card. The railroad man is obliged to be readily conversant with his card, and the Christian should also master his time card if he expects to be of any practical value in the Master's work. The talk was well received and the attendance was good.

USE OF THE LIBRARY.

As is the annual custom the administrators of the general library of the University of Michigan have compiled figures showing one week's use of the library according to the departments of the users. The students of the university made up 97 45-100 per cent of the total users: the remainder were pupils of the university school of music, the Ann Arbor high school, and citizens. The faculty use of the library is not included in the tabulation below. The figures are for the week ending March 5. It is to be noted, as indicating that Saturday is not a day of rest for the students, that more work was done in the library on that day than on any other.

Department	Non. Feb. 29	Tues. Mch. 1	Wed. 2	Thu. 9	Pri. 4	Sat. 5	Total
Literary	646	716	538	681	667	708	3956
Engineering.	64	.95	48	84	62	121	474
Law	32		45	53	65	131	361
Medical	11	18	4	8	20	18	79
Homeopathic	3	7	3	- 9	7	4	33
Dental		2	1	1	3		7
Pharmacy	2	3	2	1	2	7	17
Total Univ	759	876	641	837	825	989	4927
School of Music.		2	2	7	17	20	50
High School	3	2	3	6	5	14	33
City	- 4	11	7	12	11	1	46
	768	891	653	862	858	1024	5056

ALUMNI.

'63. NAUGHTY JOHNNIE.

AN OLD STORY IN A NEW DRESS.

Johnnie was naughty and did a mean trick; His ma thought she'd wallop him with a stick:

Johnnie just took to his heels and he ran

Fast as ever he could to escape from her hand.

She followed him close and, whenever in reach,

She hit him a whack, made him bellow and screech.

Chased him all 'round the place, dodging indoors and out,

Till the chickens all cackled with fright at the rout.

She cornered him up in a bed room at last, And, locking the door, thought she had the boy fast,

She started to thrash him, but down, with a shout,

He went under the bed and he wouldn't come out.

"You get yourself right out from under that bed.

Or you'll catch it, for certain!" she angrily said.

He knew that she'd lick him, as sure as he did. He was out of her reach, so he stayed

where he hid.

Then his father came home and, on punishment bent,

Right under the bed after Johnnie he went, But the first thing he heard when he crept into view

Was, "Hello there pa! is she after you, too?''

-F. HODGMAN in Rural Advocate.

'S6.

Prof. P. B. Woodworth, of Lewis Institute, Chicago, spent his vacation week in Judge Hancey's court as electrical expert witness for plaintiff and conducting cross-examination of experts who appeared for defendant in a suit brought by a telephone operator against the Chicago Tele-phone Company. It seems that while Miss Schultz had the receiving apparatus on her head an electric shock from the wire caused the destruction of the tympanic membrane. She sued the company for \$30,000.00 damages and Prof. Woodworth was a star witness. His cross-questioning was severe and he made out such a strong case that the jury rendered a verdict for the plaintiff of \$15,000.00 damages. Ye editor can appreciate the position of defendant's witnesses for he has a distinct recollection of Prof. Woodworth's quizzes and the total collapse of many a promising respondent.

The King's Daughters Circle will meet at Mrs. Gunn's April 27. Leader, Mrs Bogue. Subject, "Sarah." Please bring circle work. G. H. B.

'Sz.

The fight between Cornell and Syracuse universities for the proposed state agricultural college has been won by Cornell. The legislature recently passed a bill appropriating \$250,000 for the erection of new buildings. A fine agricultural building with large laboratories will be erected soon. Prof. L. H. Bailey will be the dean of the college. He says that it will immediately take rank with the leading agricultural departments of the best universities.

THE M. A. C. RECORD.

THOFF.

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. BESS K. PADDOCK, '05w. G. F. TALLADAY, '05a. R. C. POTTS, '06a. GRACE BRAHAM, sp. M. R. D. MALTBY, '04a, ANNA PICKETT, '04w.

- - 50 cents per year. Subscription,

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, APR. 19, 1904.

POETICAL EPISTLE TO MISS EMMA STURGES.

The following poem was found among the manuscripts of the late Dr. Abbot, president of M. A. C. from 1862 to 1884 and at the time the poem was written, professor of English literature:

From Agricultural College is my date August 11, 1858.

Dear Emma,

"I now take my pen in han' To write you a small note from Michigan. Dame Rumor-'tis in Virgil you will find A full description of her form and mind; And how she walks the earth, yet hits the

stars,

Sometimes like Venus smiles, then storms like Mars;

And tells a story "from whole cloth" or verity,

She cares not which, so it be but a rarity-Whispered a thing of you;-but 'tis a secret, And I'll not break her confidence, but keep it, However, it kept me wondering how, since yore,

You'd been in years and size a constant grower;

And that I might expect the dolls and play Would be, by this time, proudly put away, Indeed I might suspect some serious matter. Receiving one note now for many a letter. Perhaps your lessons--I don't mean a book--Consume your time in learning how to cook.

Ah well, it sets me into contemplation, With thoughts that wander over the crea-

tion; And like my thoughts, my rambling verses jingle

The glad and sad, the grave and gay commingle.

When from Home's harbor, with the sail unfurled

Life's sea we tempt, we find another world; And great the difference of the care we make

urden which we take that se

Spread with the light of cheerfulness our Through fruit and flowers of earth, to end-

less day. That wisdom so divine may be thy share

Is of thy friend, the earnest, hopeful prayer. This light, this Spring of life, this happy end,

Is in thy Saviour, take Him for thy Friend. Please be so good as send me a long letter; The rest, too, on this score, are each my debtor.

'Tis getting late; so I to bed am off. With true affection, From your uncle

ELECTIVE COURSES.

As a result of a critical study of the electives made by the Harvard classes during their Sophomore, Junior and Senior years President Elliott asserts that the elective system does not produce a capricious selection of heterogeneous, disconnected elementary studies, but on the contrary, results in consistent plans of individual study throughout the college course. President Angell also bears witness to the wisdom students, with few exceptions, have shown in this respect. The fear that election would produce a onesided education seems to be unfounded. The best studies for any particular student are those that aptitude and aim lead him to select, and that to gain a liberal education a man must delve so far into his chosen subject as to trace its relations with other branches. - Michigan Alumnus.

EXPERIMENTAL WORK,

Prof. C. D. Smith has made arrangements for the following experiments to be conducted this year: 1. Vetches seem to degenerate

and become obnoxious weeds. A botanical study will be made of the varieties that have this tendency.

2. Cow peas and soy beans will be studied particularly as to nodules. The influence of fertilizers and inocculation on the number of nodules will be investigated; also the relation between protein content of plant and number of nodules.

3. Alfalfa will be tested thoroughly. The effect of inocculation will be studied. Some twenty farmers throughout the state are growing it this year, and a bulletin will be issued next year giving the results with this legume.

4. Sand Lucerne will be tested again.

5. White beans will receive considerable attention. Michigan is raising a large amount of this crop. Variety tests will be made and the anthracnose will be studied as to the best way of preventing it.

6. Peppermint growing is quite an industry. One-third of the world's supply of peppermint oil is produced in Michigan. Certain dis-eases have attacked it. These will be investigated and fertilizer experiments will be conducted. F. E. Lindsley, of Decatur, has donated 10 acres for this purpose.

containing a large amount of protein is being developed.

10. Sugar beet seed is being produced in Michigan. Work on this important subject will be continued. The value of spraying and fertilizing for the prevention of blight will be studied. In co-operation with the U. S. Department of Agriculture, a study will be made of the influence of environment on the quality of beets.

11. The influence of soil and environment on the chemical composition of crops will be investigated.

12. The Grand Traverse disease of cattle will receive considerable attention. This disease has baffled scientists so far. The effect of food, water, fertilizers on soils, etc., will be observed. A bacteriological examination will also be made.

13. The station has developed a strain of wheat richer in gluten than formerly. A more fruitful strain has also been produced. Can these qualities be combined? Experiments to improve wheat will be continued.

Other lines will be investigated but the above constitute the principal things to be studied. The work is varied and requires a great deal of care and planning.

DISCOVERS MISSING LINK.

Dr. Charles J. Chamberlain of the Botany Department has returned from Jalapa, Mexico, where he was sent by the Botanical Society of America, with several specimens of the flower of the dioon, a plant of the cycad group, which is thought to be the oldest known plant organization. It is believed that it was on earth as far back as the paleozoic age. It forms the connecting link between the earliest forms of plant life and the plant forms of the present, and its appearance was identical in time with the appearance of the fossil plants.

At Jalapa there are plants which are from 2,000 to 3,000 years old. Some idea of their rate of development may be gained from the fact that one plant which had been under cultivation for forty years was not more than a foot high.

The flowers, which are the only parts needed to pursue investigations, weigh about fourteen pounds, and develop to perfection once in four or five years. Although the flowers Dr. Chamberlain brought back have been separated from the plants for more than a month, they continue to develop and all the processes of the life of the seeds go on as though still attached to the plant, simplifying the completion of the

The Latest and Best Creation in Confections

experiments which Dr. Chamberlain will conduct. The flowers are shaped like pineapples, but are longer and narrower, and contain within a covering of waterproof husks, dozens of seeds, light yellow in color, and larger than horse-chestnuts. These contain large quantities of starch .- Daily Maroon.

With '87.

H. G. Wiley was recently elected mayor of South Haven on the democratic ticket. He is interested in the steamship business.

'92.

Walter D. Groesbeck graduated from the Columbian University School of Patent Law in June last and is now practicing at 913 F St., N. W., Washington, D. C.

'95.

H. W. Lawson is one of the review editors of the Journal of the American Chemical Society. His specialty is agricultural chemistry. He has several interesting reviews in the April number.

With '96.

J. F. Nellist, besides devoting himself to sanitary engineering, is largely interested in lettuce growing. He has sent a sample of soil to Prof. Kedzie which did not prove a success for lettuce. The sample will be analyzed to determine the chemical composition.

Miss Nancy Mac Arthur of the University is visiting at her sister's, Mrs. G. Masselink.

'02.

M. B. Stevens who has been working for the Agricultural Department at Washington took a short glance at friends at the college Monday morning.

John A. Fraser is working for a contracting and building firm in Chicago. His address is 602 Van Buren St.

'03.

J. L. Thorne was elected to membership in the American Chemical Society last month.

The tensile strength of a steel rod three-fourths inches in diameter was 88,000 pounds per square inch of cross section. The Juniors in experimental work make these tests. Bessemer, cold rolled and open hearth steel, wrought iron, cast iron and boiler plate are tested. Cement testing comes later in the term. The hydraulic machine has a capacity of 50,000 pounds actual. This can be increased by decreasing the section of the test rod.

The dear-bought knowledge doth the old annoy

That Hope still flatters, while possessions cloy;

Unless our higher hopes and joys infuse Their better essence into all we use.

Oh, if we only knew how near us lies The Spring of Life, whence joy and wisdom rise.

Our daily duties, in this world of care, Would drop their shadows and seem heavenly fair; Would, like our daily food, our power restore,

Root out our sins, and make our virtues more;

7. Silos will be written up. The kinds built and the experience of farmers with them as well as methods of construction will form the subject for a new bulletin.

8. Co-operative experiments will be carried on north of the base line, on good land, to test fertilizers, varieties of corn, oats, buckwheat, etc.

9. Corn breeding will be con-tinued. A variety for Michigan

Wilson's

Bitter Sweets

TRY THEM AT

WILSON'S SUGAR BOWL.

106 Washington Avenue South.

THE M. A. C. RECORD.



MARQUART OR LINCOLN.

CHAS. M. NORTON, 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.

Rubber Heels

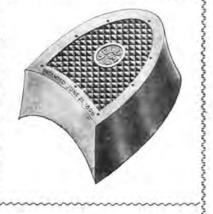
The rubber heel makes no noise, diminishes perceptibly the jar incident to walking and makes a consequent saving in nerve force.

(Next to Wings)

Price, 40c. a pair.

Special to M. A. C. Girls. Also rubber sole and cloth top gymnasium shoes.

C. D. WOODBURY, HOLLISTER BLOCK.



ABOUT THE CAMPUS.

Lieutenant McLean, of the U.S. navy, is visiting Prof. Vedder this week.

Thirty new artificial stone steps will be put in the botanic garden this spring.

On Friday, April 15, $6\frac{1}{4}$ inches of snow fell at M. A. C. between the hours of 6 a. m. and 3 p. m.

President Snyder attended the dedication of the new high school building at Mason last Thursday.

Dr. Beal has received cuttings of ten species of willows from Prof. W. W. Rowley of Cornell University.

H. C. White, president of the University of Georgia will deliver the commencement address at M. A. C. on June 23.

The farm department has purchased six Shropshire lambs from H. P. Thompson, of Milan. They averaged 116 pounds.

Instructor Norton is very busy these days and usually succeeds in what he undertakes but "accidents" by raising seedlings and cross-fertilizing.

Some money was found on the campus recently. The loser can call at 87 Wells, identify the property and receive his own without usury.

Mr. and Mrs Craig have secured rooms at Mrs. Saltmarsh's. Mr. Craig has started lettuce and radishes in hotbeds and cabbages and tomatoes in the greenhouses.

A glossary of botanical terms has been issued by Dr. Beal for use in sub-freshman and freshman classes. It is a revised edition of "Hints to Young Botanists."

Gov. Bliss has appointed Prof. Taft a delegate to the National and International Good Roads Convention to be held in St. Louis May 16-21.

The Farmers' Club will be entertained on Wednesday evening by stereopticon views on the prize winners of the "Pan-American." All are invited.

Miss Mary Thompson, teacher of

day and Tuesday. The Echo of Olivet College says that Mr. Felton is the author of a new book entitled "Studies in Brown" (Art). He had the original manuscript with him at M. A. C.

Pine Lake tickets are on sale at the secretary's office. The price is 50 cents and the money will be refunded if the cars are not running by June 15. The extension to Pine Lake will certainly be a good investment. Lansing has no parks and this outlet will be heartily welcomed.

The botanical department has received photographs of Quercus Alexanderi, the new oak, from Addison, Micb. Mr. Alexander, Michigan's farmer botanist, discovered this tree and has succeeded in getting Britton of the New York Botanical Gardens to classify it as a new species.

One of the instructors recently tried to give the latest war news from the East but experienced considerable difficulty in pronouncing the names of some of the prominent battleships. He wound up by saying that the only vowels in the word were o and a, all the other letters being v's, s, k and i's. The State Board held a regular meeting last Wednesday. Prof. Taft was granted a leave of absence to attend to his new duties in St. Louis, J. M. Rankin, '02, was appointed deputy inspector of orchards and nurseries, A new floor was ordered laid in the Feronian Society rooms.

X

The first meeting of the Horticultural Club for the spring term was held last Wednesday evening. A talk was given by Instructor Edwards on the "Relation of Bacteria to Soil," which was very interesting and full of suggestions. A good discussion followed. A large number were present and it was decided to hold meetings every Wednesday evening during the term. The executive committee anticipates some excellent programs this term which horticultural students cannot afford to miss.

The young women in Club C enjoyed a pleasant treat last Friday evening when Mr. George S. Chamberlain, of Williamston, brought them in several gallons of fresh maple syrup and all took part in "Sugaring Off." To many this was a complete novelty, to others a delightful repetition of merry times annually enjoyed in their own homes. Mr. Chamberlain has for years furnished the Clubs with farm products, and is a friend whose weekly visits are always agreeably anticipated. To the young women he has now most surely endeared himself and the "Three Cheers" with which they thanked him testified to their appreciation of his kindness.

do occur once in a while.

Mrs. Rose, from Bay City, visited her daughter, Miss Sarah Rose, at M. A. C. last Thursday, while on her way home from California.

Miss Brown, a student in the Olivet Conservatory of Music, visited her friend, Miss Gilbert, at M. A. C., last Monday and Tuesday.

Harvard University has a botanic garden in Cuba. An attempt is being made to improve sugar-cane woodwork in the manual training school of Toledo, visited her friend, Miss St. John, of the Woman's Department, last week.

Next Saturday at 6:00 p. m. Mr. Chas. D. Hurrey, International Student Secretary of the west, will speak to the college men in chapel. The meeting will close in time for societies. Every man should be there.

J. Lee Felton, a senior at Olivet College, visited M. A. C. last MonThe Sororian Literary Society held their Freshman contest Saturday evening. The program consisted of orations and recitations. Miss Katharine Watson was given first, her selection being, "Asleep at the switch;" Miss Minnie Flint second on "Toussaint L'Ouverture." The judges were Mrs. Snyder and Mrs. Landon.

Sometimes we have complaints in regard to the present strenuous life at M. A. C. In the college catalog published in 1865 are found the following notes written by Pres. Abbot: 5 a. m., first bell; 5:45, prayers; 6:15, breakfast; 7 Botanyclasses continue till one o'clock; 1 p. m., dinner; 1:30 p. m., work. How would this program suit in 1904?

佐居

The winners in the Freshman declamatory contest in the Hesperian Society were:

1st, T. H. McHatton, Lord Plunket on the Irish Parliament.

and, P. V. Goldsmith, Speech on American War.

3d, J. L. Baker, Lincoln's Second Inaugural Address.

Judges were Messrs. Gunson, Shedd and Goss.

Prof. Vedder is the author of "Notes on Surveying" for use in the earliest course in surveying at M. A. C. Errors, Field Organization, Instruments, Adjustments and Use of the Compass, The Vernier, Magnetic Declination, Computation of Area, Field Notes and Problems are discussed in a clear, concise way. The manual contains many suggestions and will be very helpful to students in this subject. Exactness is the most striking characteristic of the booklet.

Some time ago THE RECORD called attention to the new boarding system at Harvard University. The plan outlined was that each boarder orders the meat, fish and eggs he wants and pays for what he gets, The cost of all other provisions is shared by all alike. Board in Memorial Hall under the old plan cost \$4,20 a week. This year the cost of board, excluding all meats, is \$2.60 a week. Beef costs eleven or twelve cents a plate and two eggs can be secured for seven cents. By this method, a student need not pay more than \$2.00 per week. The cost above this is determined by the amount of meat he orders. It will be noticed that the cost of board has decreased nearly 40 per cent. This gives some idea of the cost of a meat diet.

We are much pleased to learn that Prof. L. R. Taft, of the Michigan Agricultural College, and who has been State Superintendent of Farmer's Institutes the past three years, has been recommended by F. W. Taylor, chief of the horticultural department of the Louisiana Purchase Exposition, for the position of chairman of the jury of awards of that department. The position is a very important one, and the work will take up a large part of his time during the coming eight months, as, besides the direct supervision of the judges, he will have a report to make, which will deal with the work of the judges and the main features of the exhibit. The professor will leave for St. Louis in a short time to make necessary preliminary arrangements and select a list of judges for the horticultural department. Professor Taft has the practical knowledge and judicial temperament that admirably fit him for this important position. No better selection could have been made .- Farm and Live Stock Journal.

the first of a series dealing with insects in general. The illustrations are excellent. The descriptions are simple and bring out the essential facts. Remedies are given for each pest described. Five pages are devoted to methods of preparing the various insecticides recommended in the bulletin. The following is a list of original drawings by the author: Eccentric scale; banding a tree for canker-worm; banded purple butterfly; folded leaves of hibernaculi; cherry leaf-beetle; cottony maple scale; San Jose scale; peach scale; fruit bark-beetle and tunnels in branches; striped peachworm; bumble flower-beetle; European fruit scale on plum; apricot scale on plum; plum gouger and pits; strawberry root-borer; straw-berry leaf-roller. The bulletin is an exceedingly valuable one to Michigan fruit growers. The trees and shrubs affected are arranged in alphabetical order. The insects themselves under each of these heads are grouped into those which work on the root, trunk, branch, foliage and flower or fruit. The next bulletin will be on garden insects. Mr. Longyear will issue one on the diseases of garden plants.

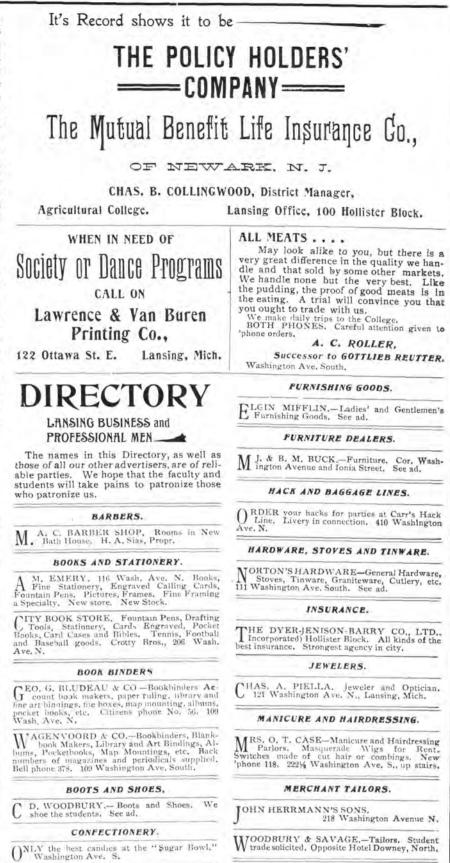
NEW CENSUS FIGURES.

The census bureau has issued a bulletin which gives the estimated population of the United States for 1903, exclusive of Alaska and the insular possessions of the United States, 79,900,389. This is an in-crease of 3,905,814 since the census of 1900. The population is estimated for 438 cities having 10,000 or more inhabitants in 1900.

In the number of towns and cities having over 10,000 inhabitants, Massachusetts is in the lead with forty-seven, containing a population of 2,197,706 inhabitants. Considered by states New York leads in population with more than 7,500,000, Pennsylvania exceeds 6,500,000 and Illinois has passed 5,000,000, Texas has over 3,000,000, having passed Missouri. Only twenty-two states now have less than a million inhabitants and fourteen exceed 2,000,000.

The bureau of the census has decided to make annual estimates of population based upon what is known as the arithmetical method. This rests upon the assumption that the annual increase for each year since the last census will be one-tenth of the decennial increase between the last two censuses.





CLOTHING.

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

L OUIS 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 802,

E. STOFFER, D. D. S. Office 105 Wash-ington Ave, S. Former M. A. C. student.

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

MUSIC, PIANOS, ETC.

GRINNELL BROS, Pianos, Organs and every-thing in the line of music, 219 Washing-ton 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.

R. H. Pettit, Entomologist of the experiment station, has issued a bulletin on "Insects Injurious to Fruits in Michigan." Those insects affecting tree and bush fruits are described in this bulletin which is

OF ALL KINDS NOW IN STOCK.

We shall make every effort to keep in

stock just what you want.

H. LARRABEE,

325 Washington Ave. S. LANSING.

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.

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, J

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.

DR. OSCAR M. BRUEGEL. Hours 9 to 11 a. m.; 2 to 4 and 7 to 8 p. m. Agricultural Col-lege, Mich. Citizens phone 1502.

PLUMBERS.

SHIELDS & LEADLEY, Plumbing and Heat-bing, 300 Wash. Ave. N., Lansing. Both

SPORTING GOODS.

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