No. 27

NOTICE.

Judge C. B. Grant, of the supreme court, will address the union meeting of the Y. W. and Y. M. C. A. on Sunday evening, April 10, at 7 o'clock. His subject will be "Students and the Law."

BOOKS RECENTLY PLACED IN THE LIBRARY.

Bailey-Horticulturists Rule Book.

Barclay-Nursery Book.

Brooks-Foundations of Zoology. Burkett, Stevens-Hill - Agricul-

ture for Beginners. Bloxam — Chemistry, 9th edition. Burnside & Pauton — Theory of

Equations. Burr - Elasticity and Resistance

of Materials of Engineering. Calkins-The Protozoa.

Cramer - Talks to Students on the Art of Study.

Cambridge Modern History, v. 2.

'The Reformation.' Dow-Composition, pt. 1.

Dean-Green-house Heating. Dickson-College Algebra. Essler-Metallurgy of Gold.

Ewart - Protoplasmic Streaming in Plants.

Frizell-Water Power.

Gale-Korean Sketches. Gordon - Reminiscences of the Civil War,

Hemenway - Ilow to Make School Gardens.

Jones-Ontlines of Electro-chemistry.

Julian-Quantitative Chemical Analysis.

Kemp-Handbook of Rocks. Lupke-Elements of Electrochemistry.

Merriman-Mechanics of Mate-

Miner-Two Heroes of Cathay. Merrill-Stones for Building and Decoration.

lands.

Northcote-Book of Herbs.

Ore Deposits.

Oudin-Standard Polyphase Apparatus.

Poole-Rural Hygiene. Prescott-Organic Analysis. Prescott-Proximate Organic

Analysis. Parkhurst-Trees, Shrubs and Vines in Northeastern U. S.

Russell-Village Life in India. Rosenberg-Electrical Engineering.

Ryan, Norris & Hoxie-Electrical Machinery.

Snow-Static Electricity and the Uses of the Roentgen Ray.

Sondericker - Graphic Statics: Applications to Trusses, Beams and Arches.

Small - Flora of Southeastern

U.S. Vincent-Ammonia and Its Com-

pounds. World-wide Evangelization.

Waters-Ferns. Wickson-California Fruits. Wickson-California Vegetables. Wilson - Irrigation Engineering. Watson-Physics.

WASHINGTON BANQUET.

The annual reunion of the M. A. C. Alumni Association of Washington, D. C., was held at Freund's at 8 o'clock, Friday evening, March The banquet was very successful and the toasts were excellent, Pres. Snyder told many interesting things in regard to the progress of the college in recent years, and David Fairchild who was born at M. A. C. in 69, spoke on the "Michigan College Spirit and How It Has Spread." He spoke especially of the work in Japan by Georgeson, Shelton, Tamari and others in the establishment of Agricultural Colleges on the same lines as at M. A. C. College songs were sung and everybody had a pleasant time. W. W. Tracy, '67, was elected president. The following is a list of the members of the association:

GRADUATES. Will Warren Tracy, '67, 1608 17th St., James H. Tibbitts, '73, 118 5th St., N.

Donald McPherson, '74, 1102 New York Ave., N. W. Charies C. Georgeson, '78, Department of Agriculture. Frank Benton, '79, 1213 Rhode Island

Arthur F. Kinnan, '83, Brookland, D.

William A. Kinnan, '86, 1110 Yale Street, N. W. Cole L. Himebaugh, '87, 932 Westmin-

ster St., N. W. Lyster H. Dewey, '88, 1337 Wallach Place, N. W.

Fred H. Hillman, '88, Glen Echo, Md. William F. Staley, '88, 1127 Yale St.,

William A. Taylor, '88, 55 Q Street, Charles F. Wheeler, '91, Lanham, Md.

Walter D. Groesbeck, '92, 1441 Meridian St., N. W.

dian St., N. W.
Lyman J. Briggs, '93, 3451 Mount
Pleasant St., N. W.
Mrs. Katharine (Cook) Briggs, '93,
3451 Mount Pleasant St., N. W.
Dick J. Crosby, '93, Lanham, Md.
Mrs. Lillian (Wheeler) Crosby, '93,

William W. Tracy, '93, 218 4th St., S.

ecoration.

Nisbet—Our Forests and Wood
D. C.

William F. Wright, '94, 1911 3d St., Clarence B. Smith, '94, Takoma Park,

Charles P. Close, '95, Newark, Del. Huron W. Lawson, '95, 1122 New Hampshire Ave., N. W. Guy L. Stewart, '95, College Park, Md. John E. W. Tracy, '96, 1917 13th St., W.

Sanford H. Fulton, '97, 404 W. Street, Lewis S. Munson, '97, 1498 Sheridan

Clift S. Austin, '99, College Park, Md. Macy H. Lapham, '99, Dept. of Agri-culture. Soils. Hugh P. Baker, '01, Dept. of Agricul-

ire, Forestry, George E. Chadsey, '01, Dept. of Agri-

Mark L. Ireland, '01, 1739 13th St., N.

Ralph M. Lickly, '01, 1549 Columbia Road, N. W. John B. Stewart, '01, Dept. of Agri-

Gordon E. Tower, '01, Dept. of Agri-

culture. Forestry.

Mamie L. Crosby, '02, Lanham, Md.

Matt A. Crosby, '02, Lanham, Md.

Orla A. Ayrs, '02, Dept. of Agriculture. Soils.

J. Fred Baker, '02, Dept. of Agricul-Forestry

Warren J. Geib, '02, Dept. of Agriculture. Soils. Arthur E. Kocher, '02, Dept. of Agri-

culture. Soils. Marcus B. Stevens, '02, 404 W. St., N.

Wallace K. Wonders, '02, 404 W. St., Frank J. Phillips, '03, Dept. of Agriculture. Soils.

Fred D. Stevens, '03, 223 R Street, N.

SPECIAL STUDENTS AND OTHERS CON-NECTED WITH THE COLLEGE.

Cleveland Abbe, '59, 2017 I Street, N. Frank B. J. Crosthwaite, '71-72, 1906

Baltimore Street, N. W. George E. Rosen, '78-'80, 715 7th Street,

N. E.
Mrs. Frank Benton, '79, 1213 Rhode
Island Ave., N. W.
Erwin F. Smith, '80, 1460 Staughton
Street, N. W.
Webster S. Ruckman, '82-'83, 903
French St., N. W.
Mrs. Edwin Willits, '85-'88, 1409 Hopkins St., N. W.
George R. Sudworth '85-'86, 1725 Park

George B. Sudworth, '85-'86, 1725 Park St., N. W. Mrs. Lyster H. Dewey, '89-'90, 1337 Wallach Place, N. W. Adelbert Dryer, '89-92, 1312 Maryland

Mrs. Elva Hicks, '90-'94, 2225 15th St.,. N. W.

Mrs. Charles F. Wheeler, '90-'02, Lan-Guy E. Mitchell, '91-'92, 1446 Merridian

Almus R. Speare, '95-'96, 1524 U Street N. W. Miss Florence Hedges, '97-'98, 635 East

Capitol St.
Dougall L. MacDougall. '97-'99, Balti-

Mrs. Clarence B. Smith, '97-'00, Takoma Park, D. C. Miss Zoe Benton, '01, Now at College.

Prof. Vedder has been engaged by the City Electric Railway Co. to survey an extension of its line from the college to Pine Lake. Prof. Vedder is a civil engineer of ability and his selection is a guarantee that the survey will be accurately

Instructor Michels is carrying on a series of experiments to determine the effect of aeration on cream in different stages of acidity and at varying ages. The results have been very favorable so far. Butter from this cream will be sent to Chicago and New York to be scored.

The relation of quality of meat to feeding stuffs and breed types is being investigated by the agricultural department. M. A. C. is the first institution to incorporate this into a course of instruction and make it a term's laboratory work. Other colleges are working along the lines of amount of meat production and the preparation of meat for market, but the most important factor, namely, quality of meat, has not been investigated to any extent. Prof. Shaw will issue definite statements in the near future.

The Y. M. C. A. meeting last Thursday evening was led by J. W. Decker. The subject was, "The Gates of Zion." The discussions were led by Messrs. McWethy, Rogers and Hornbeck. The attendance was large and the meeting was very interesting. Mr. Phillips resigned the office of president on account of his having to be at home due to his father's illness. G. W. Nichols resigned as treasurer on account of lack of time. Mr. C. C. Ford was elected president and Mr. C. D. Sterling treasurer.

ALUMNI.

778.

W. K. Prudden and wife are visiting in Florida. They have been there for the past two weeks. Mrs. Prudden, who has been seriously ill, is recovering.

93.

E. M. McElroy has been re-elected as Superintendent of the Three Rivers Public Schools at a substantial increase in salary. Mr. McElroy has made a marked success in the control of schools.

'96.

John Tracy visited M. A. C. recently. He has been traveling in Europe for the rast six months in the interest of seeds. He has charge of the congressional distribution of

97.

E. A. Robinson, of Boyne City, called on friends at M. A. C. last Thursday. He has been working at surveying and civil engineering for the past two years. He was elected surveyor of Charlevoix county two years ago and expects to be the republican candidate again this fall. During the past winter he engineered the construction of a dock and is now doing the same on an iron furnace in Boyne City. The ore is transported from the Upper Peninsula and the charcoal is made at Boyne City. The company has a large chemical plant for the manufacture of wood alcohol and

Charles Gower is superintendent of equipment of the Bement Manufacturing Company of Lansing. He is a member of the firm.

With '98.

C. J. De Land is deputy treasurer of Jackson county. In May he will take an examination in Lansing for admission to the bar. He has been studying law for several years under the direction of a local attorney.

With 'oo.

Eugene Price contemplates moving from Lansing to Fowlerville. He will enter on a business career.

oi.

O. J. Meade is taking a course in electrical engineering at the University of Michigan. He expects to stay there another year.

Geo. Severance, assistant agriculturist of the Washington Experiment station, has spent a very profitable year. He has acted as judge at several fairs and ha considerable institute work. He has taught all the Agronomy in the college during the past school year. Washington College is growing. A chemical laboratory, a dairy building, a live stock pavillion and a hospital have been recently constructed.

'03.

I. G. Moore has charge of the horticultural department of The Michigan Farmer. He finds his work very pleasant and profitable.

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. R. D. MALTBY, '04a. ANNA PICKETT, '04w.

- . . 50 cents per year,

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

tered Letter. Do not send stamps.

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

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

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

TUESDAY, MAR. 29, 1904.

PRIZES FOR ECONOMIC ESSAYS.

In order to arouse an interest in the study of topics relating to commerce and industry, and to stimulate an examination of the value of college training for business men, a committee has been enabled, through the generosity of Messrs. Hart, Schaffner and Marx, of Chicago, to offer four prizes for the best studies on any one of the following sub-

1. The causes and extent of the recent industrial progress of Germany.

2. To what is the recent growth of American competition in the markets of Europe to be attributed?

3. The influence of industrial combinations upon the condition of the American laborer.

4. The economic advantages and disadvantages of present colonial possessions to the mother country.

5. The causes of the panic of 1893.

What forms of education should be advised for the elevation of wageearners from a lower to a higher industrial status in the United States?

7. What method of education is best suited for men entering upon

trade and commerce? A first prize of one thousand dollars, and a second prize of five hundred dollars, in cash, are offered for the best studies presented by Class A, composed exclusively of all persons who have received the bachelor's degree from an American college since 1893; and a first prize of three hundred dollars, and a second prize of one hundred and fifty dollars, in cash, are offered for the best studies presented by Class B. composed of persons who, at the time the papers are sent in, are undergraduates of any American college. No one in Class A may compete in Class B; but any one in Class B may compete in Class A. The Committee reserves to itself the right to award the two prizes of \$1,000 and \$500 to undergraduates, if the merits of the papers damand

The ownership of the copyright of successful studies will vest in the donors, and it is expected that, without precluding the use of these papers as theses for higher degrees, they will cause them to be issued in some permanent form.

Competitors are advised that the studies should be thorough, expressed in good English, and not needlessly expanded. They should be inscribed with an assumed name, the year when the bachelor's degree was received, and the institution which conferred the degree, or in which he is studying, and accompanied by a sealed envelope giving the real name and address of the competitor. The papers should be sent on or before June 1, 1905, to

J. LAURENCE LAUGHLIN, Esq., University of Chicago, Box 145 Faculty Exchange, Chicago, Ill.

202.

W. W. Wonders, of the Department of Pomology, Washington, D. C., will enter the University of Michigan next fall to take a two years' course in economics.

A. J. Craig will take charge of the gardens at M. A. C. this summer. He has been working in Muncie, Ind., for the past two years.

'03.

The wedding of Glenn Sevey, son of J. C. Sevey of Ithaca, and Miss Marie Vance, of Lyons, occurred at the home of the bride's parents at Lyons, on Tuesday, March 15, in the presence of the parents and a few immediate friends of the bride. Owing to the serious illness of Mr. Sevey's father, neither of his parents could attend. The happy bride and groom left at once Springfield, Massachusetts, where Mr. Sevey has recently been promoted to the editorship of the New England Homestead, the largest agricultural paper of New England. Mr. and Mrs. Sevey had intended to be wedded in June, but owing to the fact that Mr. Sevey was called home by his father's illness, they decided to be married before his return .- Gratiot Co. Herald.

Battle Creek, Mich., March 19 .-Since Prof. Hedrick, of the Agricultural college, sounded the slogan of "death to the robin" before the State Horticultural society, the question of the slaughter of the robin has caused widespread discussion in this city, and the universal verdict has been "to save the robin."

The president of the local Nature club wrote to Prof. Walter B. Barrows, professor of zoology in the Agricultural college, for his opinion. As Prof. Barrows is one of the best known ornithologists in the United States and a life long student of birds, it was thought that his opinion would have great weight in this dis-

Prof. Barrows writes that in his opinion the fruit grower is entitled to the right to protect his fruit from birds when they become so numerous as to endanger a large percentrge of his crop. He says: "No doubt that in the long run the sum total of good done by any individual robin equals the harm done, but in my opinion it has never been shown that the good and harm are distributed impartially. None of us care to have the robin exterminated, but if their numbers here were reduced 50 or even 75 per cent. there would still be enough for all economic and esthetic purposes, and the fruit

grower would stand a better chance of saving his crop. My idea would be to modify the bird law so as to allow farmers and fruit growers, on their own land to protect their crops from actual damage by birds, even to the extent of shooting or destroying nests. The law at first should apply only to the robin, as he is the worst offender. As you well know, I am a thorough friend of the birds and deplore deeply the unnecessary killing of a single one, but we should not let mere sentiment blind us to the obvious losses which the robin occasions, and as the species is very prolific and actually increases with the settling and cultivation of the country, its numbers can be safely reduced when necessary .- Detroit Free Press.

The farm department will make an exhibit of experimental sheep at the St. Louis Exposition. Some yearling wethers will be fed with a view of showing the effect of food on the quality of the mutton product. On the one hand to produce, if possible, thick fleshed carcasses through the use of balanced rations, and on the other hand to use an unbalanced ration showing its effect on the accumulation of an excess of fat. Different breeds will be used. The The value of corn, dried beet pulp and dried molasses beet pulp will also be shown. About 40 head will be required.

In the Moderator-Topics of March 17 occurs the question, Describe the direction and manner of growth of the morning glory. Atty. J. W. Beaumont, '82, made some observations along this line when he was a sophomore at M. A. C. He found that the morning glory does not always twine in the same direction. Some go from right to left, others from left to right. This is contrary to the statements found in most text books and the person who made out the above inquiry for second grade certificates evidently had not made extensive investigations.

The water has reached the highest point ever known at M. A. C. The bridge to the athletic field is entirely covered, a bridge in the botanic garden has gone out and the farm road is damaged considerably, the water touching the bridge. Street cars could not run on Friday morning on account of the track's being covered with water near the Bradford place. The Kalamazoo bridge down town went out carrying with it the poles and wires of the city lighting plant. As a consequence faculty row brushed up its kerosene lamps and thus prevented

a reign of darkness. The railroad bridge near the engine house is apparently safe at this writing. The basements of the Woman's Building and of the Library are flooded. The bus line has been re-established and students find considerable difficulty getting home.

Col. Ham gave a very fine lecture in the armory last week. His subject, "Old Times in Dixie," was handled very interestingly and in a masterly manner. He was quite humorous and his character sketches were good. He is a great impersonator and gave many curious incidents of southern life. The Negro question was touched upon and presented in a very common sense way. The speaker was well received and all voted him the best speaker of the course so far. Russel H. Conwell and Senator Dolliver will speak next term.

During the course of some experiments, investigating the relative vitality of certain fungus spores, Prof. Dandeno discovered that the spores of corn smut grow remarkably well in an aqueous solution of hydrochloric or sulphuric acid at a concentration of about 1-100 normal. Spores placed in a drop of such acid solution on a slide in a moist chamber for two days, produce a luxuriant growth of sporidia, especially around the margin of the drop. This is particularly interesting in view of the fact that heretofore it was with the greatest difficulty specimens for class illustration could be obtained. No nutrient solution so far as is known, has proved satisfactory. The germination of spores of Macrosporium sp. was scarcely, if at all, hindred by either of the above mentioned acids at n-128 normal. In fact they germinate even better than in a nutrient solution. The remarkable resisting power (to certain poisons) of fungus spores, is all the more striking when it is considered that the root tip of a lupine seedling will scarcely withstand the concentration of n. S192.



OF ALL KINDS NOW IN STOCK.

We shall make every effort to keep in stock just what you want.

J. H. LARRABEE. 325 Washington Ave. S. LANSING.

The Latest and Best Creation in Confections

Wilson's Bitter Sweets

TRY THEM AT

WILSON'S SUGAR BOWL,

106 Washington Avenue South.

NORTON'S RANGES!



The Easy Line to Use

Take it EARLY in the SPRING, and avoid that tired feeling which surely comes unless you have a

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 Chairs at 50c up. \$1.35.

> 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.



NO SHOE

Will command Greater Popularity than our line of well lasted, well trimmed Shoes, specially designed to please the M. A. C. girl.

Price \$3.00 a pair.

Many Styles and Toe Shapes. Many Leathers including a handsome Patent Colt, Blucher style.

C. D. WOODBURY,

Hollister Block.

X

CAMPUS. ТН B 0

Who said "skirts?"

Mrs. Wellman is gradually improving, she is able to sit up part of the day.

The shops will be open during vacation but student work will be discontinued.

Mrs. W. O. Hedrick has had an attack of the grip. She is much better at present.

Fred Walker entertained his sister last Thursday and Friday, Miss Walker is a student at Albion College.

The Sigma Mu Beta society has been admitted to the oratorical association which will now have ten members.

Several new houses will be built in Collegeville this year. Property is quite high and seems to be in great demand.

C. L. Brody has completed his course and has left for home. His father is a prosperous farmer at at Constantine.

The Juniors, taking floriculture, will do the constructive work on the greenhouse. The labor will be entirely educational.

The women in physiology dissected several cats last week. Their work was of a superior order and all were intensely interested.

The Junior Annual is progressing finely. The editors are busy arranging the material. The Annual will have some excellent literary articles.

Instructor Longyear is testing beet seeds at present. The Alma

Sugar Co. sent three samples. Tests are made for germination and impurities.

Michigan ranks first in the production of peaches, second in blackberries, raspberries and strawberries, third in cherries, plums, pears and fourth in apples.

The farm department is constructing several portable pig pens to be used in the pasture. They contain several new features and will be very serviceable.

Uncle Sam has paid over \$6,000,ooo in salaries to members of the Brown, Smith, Jones, Johnson and Williams families. Who says there is nothing in a name?

Howard Severance has finished his course and expects to secure work on the exposition grounds in St. Louis this summer. He has made horticulture his specialty.

The new team for the station has arrived. The horses are dark bays. The farm department has purchased a team of mules. It is not known who will handle this last addition.

The stewards for next term are: Club A, B. P. Pierce; Club B, O. W. Burk; Club D, A. J. Anderson; Club E, G. W. Nichols; Club G, C. I. Auten; Club H, J. E. Schaefer.

The Misses Robinson and Miss Dodge of Lansing gave a dinner in honor of Miss Braham, Miss Barris, Miss Eichbaum and Miss Rumsey who do not return to college next

Geo. A. True, who took a special course at M. A. C. in '95-'96, has as fine a dairy barn as there is in the state. Prof. Smith lectured in Armada last week and visited at his

Max,-Daddy, can a goose stand on one leg?

body laughed.

Daddy-Well, now, I don't know. Max,-Why don't you try? And Max wondered why every-

Prof. Taft spent part of last week inspecting orchards in the vicinities of St. Clair, Pontiac and Armada. The San Jose scale has been very destructive in this section of the state, many trees having been killed.

O. D. Dales, who is employed in the engineer's office of the Chicago and Northwestern Railway Co., will re-enter college for the spring term and expects to finish his course here at some future time.

Entrance geography should evidently be made more difficult, judging from estimates made of the latitude of the College. A class of Sophomores had it located all the way from 39° to 74°.

The commencement orators for class of 1904 were selected by the Faculty last Friday evening. A. B. Rogers will represent the Agricultural department, S. E. Johnson the mechanical, and Marguerite Barrows the women's.

The Women's Building will be closed during vacation. The in-structors all left for home as well as most of the students. A few women students intend to spend the vacation at the College and have secured rooms at Mrs. Perkins'.

The work in bacteriology next term will be along the lines of agriculture, domestic science, hygiene, fermentation, soil and dairy. Some work will be done in plant diseases. Students select such work as will best apply to their electives in other departments.

At the election of officers for the Feronian society it was decided that the office of President be left vacant in memory of their late sister, Rubie E. Light, who would have served as president this term. The officers elected are as follows: President, -; Vice President, Bess K. Paddock; Secretary, Mae Louise Reed; Treasurer, Helen D. Baker; Marshall, Berenice Maynard.

The athletic field is covered with water. It seems very doubtful whether the field is favorably located. The spring months are usually wet and in case of a freshet, the river usually overflows and renders the field unusable as well as destroying any improvements. Moreover, it will be impossible to use it as early in the season as is desirable even under the most favorable weather conditions.

Through the vigilance of Dr. Marshall measles have practically disappeared at M. A. C. Dr. Marshall attended to each case in person, isolated those attacked and subjected the rooms to a thorough disinfection. Other institutions have been unable to cope with this disease successfully, but M. A. C. has stamped it out. The health of the student body has continued excellent throughout the

Treatment of the Drowned, Suffocated, or Electrically Shocked.

The following article is taken from a report of the State Board of Health published in 1874. The method described is known as the "Michigan Method," and is frequently found in school physiologies. The method was worked out by the late Dr. R. C. Kedzie and by Dr. Baker, of Lansing, whose likenesses appear in the cuts. The method is very successful and has recently been pronounced the best by Dr. Schafer, of Edinburgh.

Three things to be done: Restore breathing; restore animal heat restore the circulation of the blood.

RULE 1. Remove all obstructions to breathing. Instantly loosen or cut apart all neck and waist bands; turn the patient on his face, with

Fig1

the head down hill; stand astride the hips with your face towards his head, and locking your fingers under his belly, raise the body as high as you can without lifting the forehead off the ground

(Fig.1), and give the body a smart jerk to remove mucus from the throat and water from the windpipe; hold the body suspended long enough to slowly count one, TWO, THREE, FOUR, FIVE, repeating the jerk more gently two or three times. Then act by Rule 2.

RULE 2.—Keep the patient face downward, and maintaining all the while your position astride the body,

grasp the points of the shoulders by the clothing, or, if the body is naked, thrust your fingers into the armpits, clasping your thumbs over the points of the shoulders, and raise the chest as high as you can (Fig 2.) with-

ground, and hold it long enough to slowly count ONE, TWO, THREE. Replace him on the ground, with his forehead on his flexed arm, the neck straightened out, and the mouth and nose free. Place your elbows against your knees and your hands upon the side of his chest (Fig. 3)

Fig. 3.

over the lower ribs and press downward and inward with increasing force long enough to slowly count ONE, TWO. Then suddenly let go, grasp the shoulders as before and

raise the chest (Fig.2); then press upon the ribs, etc. (Fig. 3). These alternate movements should be repeated 10 to 15 times a minute for an hour at least, unless breathing is restored sooner. Use the same regularity as in natural breathing.

Do not give up too soon: You are working for life. Any time within two hours you may be on the very threshold of success with-

RULE 3 .- Restore the animal heat. Wrap the patient in warm blankets, apply bottles of hot water, hot bricks, or anything to restore heat. Warm the head nearly as fast as the body, lest convulsions come on. Rubbing the body with warm cloths or the hand and slapping the fleshy parts may assist to restore warmth, the circulation of the blood, and the breathing also. The rubbing of the limbs should always be from the extremities towards the body. If the patient can surely swallow, give hot coffee, tea, milk, or a little hot sling. Give spirits sparingly, lest they produce depression. Place the patient in a warm bed, and give him plenty of

fresh air; keep him

lay. A moment may turn the scale for life or death. Dry ground, shelare of secondance.

artifical breathing.

ing. Precious time is wasted and the patient may be fatally chilled by exposure of the naked body, even in summer. Give first attention and efforts to restore breathing by forceing air into, and out of the lungs. If the breathing has just ceased, a smart slap on the face, or a vigorous

> hair will sometimes start it again, and may be tried incidentally, as may, also, pressing finger upon the root of the tongue.

> Before the natural breathing is fully restored, do not let the patient lie on

the tongue forward. The tongue falling back may close the windpipe and cause fatal chok-

once clothing circulation.

Prevent

fresh air; also from trying to give stimulants before the patient can swallow. The first causes suffocation; the second, fatal choking.

purchased a new Fox typewriter.

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 or Dance Programs

CALL ON

Lawrence & Van Buren Printing Co.,

122 Ottawa St. E. Lansing, Mich.

DIRECTORY

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 potronize 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 Ac-count book makers, paper ruling, library and fine art binnings, 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, Al-bums, Pocketbooks, Map Mountings, etc. Back numbers of magazines and periodicals supplied. Bell phone 378. 109 Washington Ave, South.

BOOTS AND SHOES.

CONFECTIONERY.

ONLY the best candies at the "Sugar Bowl." Washington Ave. S.

CLOTHING.

BUY vour Dry Goods and Clothing, Hats, Caps and Furnishing Goods at H. KOSITCHEK & BRO'S, 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. LARNED.—China, Glass and Lamps, 105 Washington Ave. S.

DENTISTS.

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

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

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

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

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.

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

LANSING BUSINESS and

PROFESSIONAL MEN_

who patronize us.

ALL MEATS

Mayslook 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.

A. C. ROLLER,

Successor to GOTTLIEB REUTTER. 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.

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

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. 2224 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.

CRINNELL 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.

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

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

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

PLUMBERS.

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

SPORTING GOODS.

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

out there being any sign of it.

quiet. Avoid De-

ter, warmth stimulant, etc., ary import-The

one action of first importance is

Do not stop to remove wet cloth-

twist of the

out lifting the head quite off the his back unless some person holds

If several persons are present, one may hold the head steady, keeping the neck nearly straight; others may remove wet clothing, replacing at

> which is dry and warm; they may also chafe the limbs, rubbing toward the body, and thus promote the

friends from crowding

around the patient and excluding

The Botanical Department has