The M. A. C. Record.

Vol. 3. LANSING, MICHIGAN, TUESDAY, JANUARY 11, 1898. No. 17.

Electric Lights.

Lights, with the source of electrical supply from Piatt's power house, were turned on in several of the College buildings last Tuesday afternoon; but, though the generator was apparently giving us 2,000 volts, we were much disappointed to find that our lamps were dim. There was an apparent loss in transmission of about 75 per cent. An investigation showed that the trouble came from connecting adjacent instead of opposite terminals on the switch-board. This gave us 1,400 volts instead of 2,000; but, as the volt-meter, placed between the armature and switch-board, was properly connected to opposite terminals, it registered 2,000. The difficulty was remedied Friday, and now we have brilliant lights, with a loss in transmission of only about 4 per cent.

All transformers have been put up and lamps to the number of about 500 are now in daily use. The motor has been installed in the Agricultural Laboratory and is giving excellent satisfaction. As soon as fixtures and lamps can be put in, the other buildings on the campus will be connected, which time will not be long delayed, we hope.

Shop Talk.

Any mention of the Veterinary Laboratory usually suggests to the mind sick cows or lame horses, fleshless bones or surgical instruments. And why not? It is a valuable part of the farmer's education to know how to treat his sick cow or horse, how to use those fleshless bones or surgical instruments, and such instruction are the seniors and sophomores receiving under Dr. Waterman this term. All agricultural students now get instruction in veterinary science during a part of the sophomore year, and those who elect continue the work during the senior year. The special course students in stock-feeding and dairying also study the anatomy of the digestive, respiratory, and reproductive organs of domestic animals, their diseases and the treatment of the same.

But this is not all that is going on in this interesting laboratory. Under the instruction of Dr. Marshall the seniors now have the privilege of studying bacteriology as it is related to the practical problems of the farm and home. Beginning with general, bacteriology they proceed to the study of antisepsis, disinfection, susceptibility and immunity, ventilation, drainage, infectious diseases, etc. The special students in stock-feeding get practically the same work, though in a more general way. The special dairy students study the principles and functions of milk—milk contamination, bacteriological cleanliness, Pasteurization, sterlization, milk fermentation, formation of pigments, alcoholic and lactic acid ferments, butyric acid ferments, peptonizing and rennet ferments, ropy, slimy, soapy, bitter and poisonous milk. The bacteriology of butter, ripening of cream, use of starters, the bacteriology of cheese and cheese ripening, the hygiene of the dairy and of dairy products, are also studied.

In the Bacteriological Laboratory two students—all that can be accommodated at present—are doing thesis work; Miss Amy Vaughn, for her Master degree, and Miss Jeannette Carpenter, for her Bachelor degree. Both are very much interested in their work and both are enthusiastic in their praise of Dr. Marshall, whose class work with them and the seniors and special students is entirely voluntary, he being an Experiment Station man.

Miss Vaughn's thesis work is on the "Fermentation of Canned Fruits." She gets spoiled canned fruit wherever she can find it and endeavors to find the cause of its spoiling. She will devote a half of each day for the remainder of the year to this work. Miss Carpenter is spending two hours a day in the study of yeasts.

Then there is another class, composed of ladies of the campus, to whom Dr. Marshall lectures three times a week on domestic bacteriology and hygiene. These lectures embrace the subjects of canning, cooking, poisonous foods, infectious diseases, disinfectants, water supply and other practical problems that confront the housekeeper.

Thus we see that it is not merely of cows and horses, bones and surgical instruments that we may learn in the Veterinary Laboratory. The student who masters the subjects there taught will have learned of these, it is true; but he will also have gained a valuable store of knowledge about other phases of domestic life.

The Dairy Room.

Several new machines have been installed this term in the dairy rooms, which are of passing interest. Of most importance, probably, is the new Tesla ten horse-power motor, which, with belt connection to a line shaft, runs most of the machinery.

From F. B. Fargo, Lake Mills, Wisconsin, has been received a combined churn and butter-worker, in which the cream is churned and the butter worked, thus obviating the influence of hot air in the dairy room. We are also using two steam turbine separators—the DeLaval and Sharpless—which have direct connection with a high-pressure boiler at the engine house and are giving the best of satisfaction. An A. H. Reid "Overflow" and a DeLaval "Alpha" have been received, which will be installed by the students to give them practice in setting up such machinery.

The College Calendar.

The new College calendar for 1898 is out. The title-page cover contains a general view of the campus from the President's house, and the following pages are adorned with 27 other half-tone engravings of laboratories, class-rooms, College landscapes, etc. Many of the cuts are new and were prepared especially for this handsome souvenir, which is now being sent out in limited numbers for advertising purposes.

During Vacation.

JOSEPH A. BULKELEY.

Leaving Toronto, a few hours' run brought me to the world-famed Niagara. Oh, those falls! how I wish the power were given me to describe them; the power no one has ever yet possessed. At first I must confess I was disappointed in them, for where I expected to see a noble body of water, vast beyond conception, falling into the gorge below, I saw nothing but a great white mist that hid everything from view and, insinuating itself into one's throat, laid the foundation of future coughs and colds. But I stood on the brink of the precipice and watched the water swirling almost at my feet; watched it in its course from the farthest visible spot, rushing, eddying, tumbling across the rocks, until, seeming to halt a moment, it hurled itself over the edge into the white cloud below. Once, too, the mist, caught for a moment by a puff of wind, rolled away a little distance, and I caught a momentary glimpse of the great falls ere it returned. Only for a moment, but it was sufficient; I had seen Niagara in its full glory and went away satisfied.

Sunday, the day following after Christmas, found me at Rochester, the third city in New York and the largest centre of nursery in the States. Here we find the Genesee Falls, which, though smaller than Niagara, are well worthy of a visit.

Geneva, the scene of my next visit, is chiefly noted for its sulphur-spring water and the fact that here we find the State experiment station. The latter is a fine institution situated one and a half miles from the the city and connected with the latter by a splendid road, recently laid down at a cost of $10,000. The city itself is built on the edge of Seneca Lake, and though somewhat quiet and sedate, is no doubt holding its own with many of its larger neighbors.

Then Ithaca—name chronicled in legend and in song, and suggestive of all that is ancient and interesting—the prettiest spot in the whole of New York. My first thought as I stepped from the train and looked up at the Cornell University frowning down on the city from a great hill, was, "what a spot for a fortification!" But Cornell needs no armament to guard its walls, for the musty volumes hidden away in the dark recesses of its great library are sufficient to intimidate even the most forward adventurer.

Much could be written on the other great cities I visited—Syracuse, Auburn, New York, the latter a volume in itself, but lack of space forbids. And then the people of those parts, how different in manners and customs they are to everyone else in the world. They fail to take life as easily as do their western brothers; all is hurry and bustle from early morning to late night. They seem to think life too short even for talking, for they seldom speak during business hours, and when they do their remarks are short, abrupt and to the point. They eat their meals hurriedly, scanning the daily paper all the time, and they look upon the western states as being beyond the pale of civilization. What struck me particularly during my trip was the great rivalry existing between New York and Chicago. Chicago vilifies the eastern metropolis at every opportunity; New York retaliates by calling Chicago a "butcher's shop."

Leaving New York I returned by way of Pennsylvania, Ohio and Indiana. Fine as is the scenery in New York, that in the great coal state eclipses it. Running through the "Quaker city," the railway soon reaches Pittsburg, the greatest coal centre in those parts. For miles the road skirts the banks of the Susquehanna, one of the most picturesque of all the American rivers. Then through Johnstown, where some few years ago the great dam burst, resulting in the death of hundreds of its townspeople. And then, better than all, the Horseshoe curve. It was night when we reached the latter spot, but a bright moon and the presence of snow showed up every detail as plain as would the clearest daylight. Every mile of track brings some new point of interest into view, and the whole trip from New York to Chicago is undoubtedly one of the finest from a scenic point of view in the northern states.

Resolutions.

Following are resolutions adopted by the Hesperian Society and sent to Mr. and Mrs. Becker and family:

Whereas, your beloved son and brother, Henry L. Becker, has been called from our midst; and

Whereas, we realize that your sorrow must be intense in your present bereavement; and

Whereas, he was an active and earnest worker for the good of the society, the members will ever hold his memory dear.

Resolved, That we, the members of the Hesperian Society, offer to you our condolance and sympathy in your affliction.

Resolved, That W. D. Hurd represent the society at the funeral.

Resolved, That a copy of these resolutions be printed in the M. A. C. Record and that a copy be sent to the parents of Mr. Becker.

Alex Krental, President.
M. H. Hammond, Secretary.

New Students.

Following is a list of new students who have entered the regular courses this term:

Ralph L. Bigelow, Owosso.
Carle L. R. Bloom, Lansing.
G. E. Byerly, Owosso.
John Clear, Lansing.
Marion L. Coman, Bay City.
Mary S. Knaggs, Bay City.
David T. Knight, Marlette.
Lucy E. Pierce, Laingsburg.
Lina Sibley, DeWitt.
Albert Slayton, Grattan.
Wm. Thieleman, Grand Haven.
W. S. Thompson, Manistee.
William Treadwell, Emery.
Guy K. White, Lansing.

J. M. B. Sill, minister to Korea, has presented the U. of M. museum a valuable case of Korean temple images. The figures are about 14 inches high, unique in design, and have never before been obtained to send outside of Korea.

THE M. A. C. RECORD.

PUBLISHED WEEKLY BY THE

MICHIGAN AGRICULTURAL COLLEGE.

EDITED BY THE FACULTY,

ASSISTED BY THE STUDENTS.

SUBSCRIPTIONS SHOULD BE SENT TO THE SECRETARY, AGRICULTURAL COLLEGE, MICH.

SUBSCRIPTION, - - 50 CENTS PER YEAR.

Send money by P. O. Money Order, Draft, Registered Letter. Do not send stamps.

Business Office with LAWRENCE & VAN BUREN Printing Co., 122 Ottawa Street East, Lansing, Mich.

Entered as second-class matter at Lansing, Mich.

For various reasons THE M. A. C. RECORD is occasionally sent to those who have not subscribed for the paper. Such persons need have no hesitation about taking the paper from the postoffice, for no charge will be made for it. The only way, however, to secure THE RECORD regularly is to subscribe.

Official Directory.

PREACHING SERVICE—Sunday afternoons at 2:30 in the Chapel.

Y. M. C. A.—Regular meetings Sunday evenings at 7:30 and Thursday evenings at 6:30. C. W. Loomis, President. E. M. Hunt, Cor. Secretary.

Y. W. C. A.—Weekly meetings for all ladies on the campus, Tuesday evenings at 8:00, in Abbot Hall. Sunday meetings with the Y. M. C. A. Miss Clara J. Stocoum, President. Miss Ella Phelps, Cor. Secretary.

KING'S DAUGHTERS—Meet alternate Wednesdays. Mrs. J. L. Snyder, President. Mrs. W. Babcock, Secretary.

NATURAL HISTORY SOCIETY — Meets second Friday of each month in the Chapel at 7:00 P. M. T. L. Hankinson, President. O. W. Slayton, Secretary.

BOTANICAL CLUB—Meets Monday evenings 6:30 in the Botanical Laboratoay. B. Barlow, President. Miss Marie Belliss, Secretary.

SHAKESPEARE CLUB—Meets Wednesday evenings at 7:30. Dr. Howard Edwards, President.

COLUMBIAN LITERARY SOCIETY—Meetings every Saturday evening at 7:00. Fourth floor, Williams Hall. C. E. Townsend, President. D. B. Lanting, Secretary.

ECLECTIC SOCIETY—Meetings every Saturday evening at 7:00, Fourth Floor, Williams Hall. H. L. Mills, President. W. H. Flynn, Secretary.

FERONIAN SOCIETY—Meetings every Friday afternoon at 1:00, West Ward, Wells Hall. Lucy Monroe, President. Blanche Huhn, Secretary.

HESPERIAN SOCIETY—Meetings every Saturday evening at 7:00, West Ward, Wells Hall. C. W. Loomis, President. H. J. Westcott, Secretary.

OLYMPIC SOCIETY—Meetings every Saturday evening at 7:00, Fourth Floor, Williams Hall. W. K. Brainerd, President. C. A. Warren, Secretary.

PHI DELTA THETA FRATERNITY — Meetings every Friday evening at 7:30, East Ward, Wells Hall. Eugene Price, President. A. E. Lyon, Secretary.

THEMIAN SOCIETY.—Meetings every Saturday evening at 7:00, Chapel. Marguerite Bogula, President. Irma Thompson, Secretary.

UNION LITERARY SOCIETY — Meetings every Saturday evening at 7:00, U. L. S. Hall. F. L. Woodworth, President. E. W. Ranney, Secretary.

TAU BETA PI FRATERNITY—Meetings on alternate Thursday evenings, Tower Room, Mechanical Laboratory. F. V. Warren, President. C. A. Gower, Secretary.

CLUB BOARDING ASSOCIATION — E. A. Calkins, President. Lucy E. Monroe, Secretary.

M. A. C. ATHLETIC ASSOCIATION—F. V. Warren, President. E. W. Ranney, Secretary.

Changes in Sunday Services.

Last Sunday the new plan of Sunday service was put in operation. Instead of the usual afternoon services, chapel exercises were held at nine o'clock, at which President Snyder gave an interesting talk on Martin Luther and the Reformation. It is planned to have a talk each Sunday morning on some interesting topic, and to encourage the students to attend services at the churches in Lansing. The College has completed arrangements whereby they are able to sell the students ten round-trip tickets for 25 cents. This seems to be a popular arrangement, for last Sunday four car-loads left for church at ten o'clock, besides many who attended in the evening.

Will You be a "Do-as-dad-did" Farmer?

One of the editorial writers on the *Ohio Farmer* says:

"Those who wish to become lawyers, preachers, teachers, editors, authors, doctors, dentists, professional or expert chemists, botanists, engineers, or scientific or literary experts in any line, and to have any show of rising above the dead level of mediocrity, must not only be bright naturally, but have the equivalent of a college or professional education or both, taking from three to ten years of expensive study under trained teachers, with costly apparatus and equipment. Even if they wish to be typewriters, stenographers, bookkeepers, bank clerks, traveling salesmen, etc., they need the equivalent of a good high school education, supplemented by a year or more in a good commercial college. If they wish to be really skilled mechanics the preparation is almost as difficult and costly. If they wish to be mere day laborers at a dollar a day, mere 'hewers of wood and drawers of water,' then a common school education, a knowledge of 'the three rs,' will suffice.

"Is the case different with the farmer's boy who wishes to be a farmer? He can be a day laboring, routine, 'do-as-dad-did' farmer with little or no 'book larnin,' but if he wishes to rank intellectually, socially, and even financially, with the best trained men in other callings, then he must do as they do—get such education as shall best fit him for his calling.

"This brings us to the second question: What is practically best for those of limited means? In brief, we say: Use earnestly all home school advantages, through some village high-school if possible, practice until you have a rapid, regular and legible hand writing, study somewhere until you understand simple bookkeeping and ordinary business forms, and then if possible take two years or more in your State Agricultural College."

Our Generator and Motor.

The new College plant consists of Tesla Polyphase apparatus built by the Westinghouse Electric & Manufacturing Company. The system is one of peculiar interest and value. The object which Nikola Tesla sought to attain when he began his work was the elimination of the commutator—the weak point and the most troublesome element in all direct current machinery. Since Tesla began his work much has been done to improve the construction of commutators, but they still remain the most expensive and the weakest part of all direct current machinery. Commutators are built of a large number of pieces separated by insulation and the slightest crack or pin-hole will cause a breakdown and interruption of service.

The Tesla machine has a collector which consists of one solid piece permitting the use of heavy insulating material. The collectors run without attention for almost indefinite periods and are practically not objectionable. In the Tesla motors even the collectors are discarded. This makes the operation and care of a motor equal to the simplicity of turning the switch on an incandescent lamp. Today the commutator is sinking slowly into comparative obscurity. Recent progress has brought forth a new race of dynamos, commutatorless and of extreme simplicity. The great lighting stations are changing from the makeshift of earlier days to the simple polyphase dynamo and motor. The larger electric light and power stations now under construction are practically all of the polyphase type.

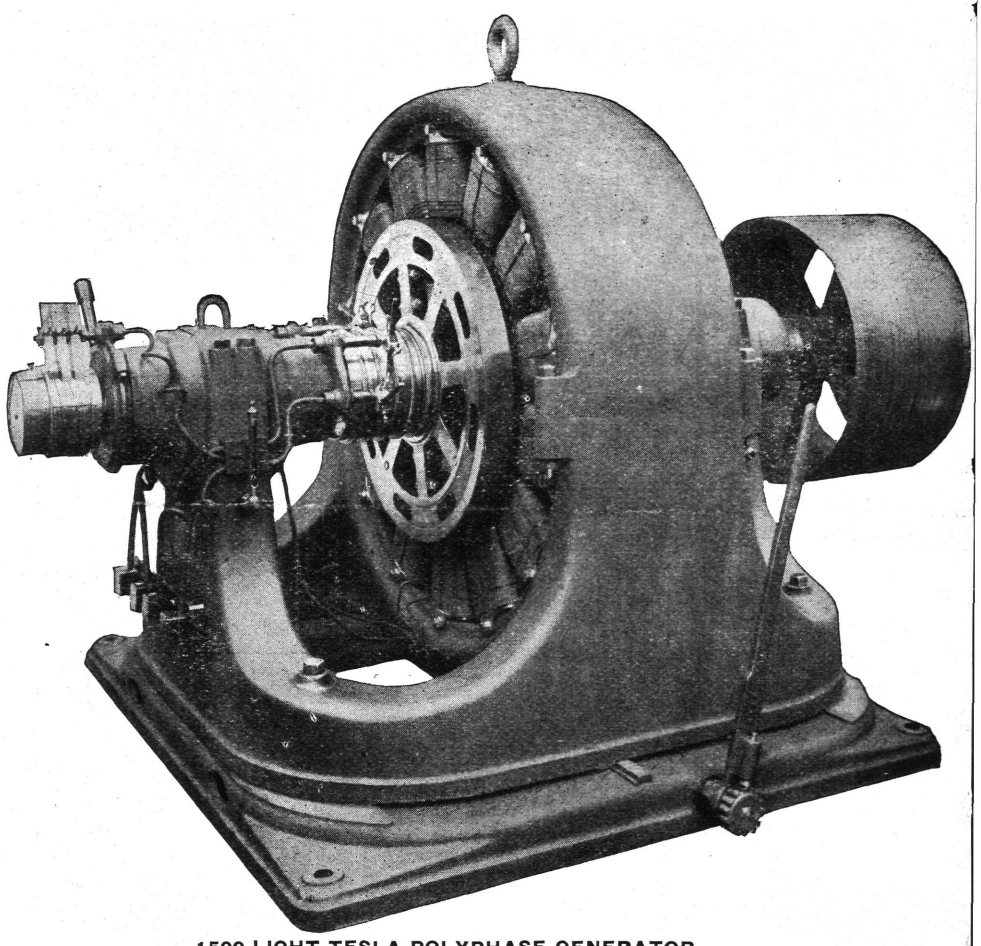
The College population has every reason to expect first class lighting service and incidentally the most reliable motor service. The educational value of such a plant cannot be overestimated.

P. B. W.

Is the Invention of Modern Machinery Detrimental to the Laboring Classes.

WALTER W. WELLS, '01, HESPERIAN SOCIETY.

A public benefactor has been defined as one who makes two blades of grass grow where one grew before. On the same principle, a man who makes one day's work produce twice as much as it formerly did, of the comforts of life, is a public benefactor. And that is certainly what the inventor of modern machinery does.



1500-LIGHT TESLA POLYPHASE GENERATOR.

Does anyone say that we would be better off if the plow had never been invented? Is there a laborer in this country who would care to change places with the laborer of China or India? Nevertheless there are conditions resulting from the introduction of machinery that have led some to believe that it is a curse rather than a blessing.

One of the most common arguments against the use of machinery is that of the displacement of labor. A man employing twenty men purchases a machine which enables fifteen to do the same work, and the other five are discharged. In the manufacture of agricultural implements, the use of machinery has enable two men to do the work of seven working by hand. A large Philadelphia house engaged in the manufacture of children's shoes finds that the introduction of machinery in the last thirty years has displaced employees in the proportion of six to one. In the manufacture of carpets, one man does the work which formerly required ten or twenty; while in spinning, 1,100 threads are easily spun now where one was spun under the old system. One of the largest establishments in the world for the manufacture of Bessemer steel was recently erected near Baltimore and, according to the superintendent, they are enabled, by means of improved appliances, to produce a ton of steel with one-third of the manual labor required at their other establishment erected about twenty years before. And so we might go on indefinitely.

It cannot be denied that the individual worker often suffers by the introduction of a machine to take his place. This is keenly felt and has sometimes led to the destruction of the machine. But suppose the employer does pocket the money which formerly went to pay the laborer. He does not hoard it but surrounds himself with more of the comforts of life, paying his money to the carpenter, the painter, the cabinet-maker, the teacher and the railroad company, creating a demand for more labor in their lines, while the money he paid for the machine increases the demand for skilled machinists.

And over against the "displacement of labor" we must place the "extension of labor" caused by the use of improved machinery. Modern inventions have created entirely new professions, giving employment to whole armies of men, while in many industries they have so cheapened the finished product that the demand has greatly increased. Six years after the invention of nickel plating by electricity more than thirty thousand people were employed in the industry, while the telegraph and the whole field of electrical industries have created positions for many thousand intelligent workmen.

In cotton manufacture the displacement of labor has been in the proportion of three to one; but the consumption of cotton has increased from six pounds per capita in 1830

to nineteen pounds in 1890. So we see that the expansion of labor has fully offset the displacement of labor in this industry, at least. I have mentioned the displacement of labor in the manufacture of steel, but over against that fact we must place the fact that the consumption has increased from forty-seven pounds per capita in 1880 to one hundred forty-four pounds in 1890.

Perhaps a more conclusive proof is found in the increase of the number of laborers. From 1860 to 1890 the population increased ninety-nine per cent., but the number of persons employed in all occupations increased one hundred seventy-six per cent.

Carrol D. Wright says, "It is certainly true that in those countries given to the development and use of machinery there is found the greatest proportion of employed persons, and that in those countries where machinery has been developed to little or no purpose poverty reigns, ignorance is the prevailing condition, and civilization consequently far in the rear."

Another objection to the use of machinery is that it makes the laborer a specialist. Instead of learning a trade he learns to operate a machine which performs one operation on a large number of articles. A man can work in a shoe factory all his life and not be able to make a shoe, for his sole business has been trimming heels at the rate of three hundred pairs a day. His work is the monotonous mechanical movement of feeding the machine, which makes him little more than part of the machinery. It requires but little brain work and thus makes him less of a man. And if he is thrown out of employment for any reason, he is unable to take up any other line of work to advantage.

On the other hand, does not the manufacture and care of machinery require intelligence and brain work? Is not the steam engineer more of a man than the man who operated a horse power or used his own muscle to do the work now done by steam? Many inventions, such as the steam shovel, have relieved man from much of his physical labor while others, such as the dynamo, have created a demand for intelligent laborers. The number of hours of labor have been reduced from 12 or 13 to 9½ or 10, giving more time for intellectual and social culture.

Another objection sometimes urged against the use of machinery is that it gathers men together in large masses, confines them in unhealthy apartments, ruins health, contracts their minds and depraves their morals. But is this a natural and necessary consequence? And does this state of affairs exist to any considerable extent? It is true that the factory system does gather the workers together. It sometimes enables an ignorant person to do well what a skilled man could only do poorly without the aid of machinery, and thus it collects ignorant laborers; but this brings their ignorance to the notice of the public and leads to intelligence. Almost any laborer can have a comfortable and healthy home. He can secure more of the material blessings of life with less labor than formerly and this, aided by the printing press, has placed an education within his easy reach.

The bicycle and trolley car enable the city laborer to live in the suburbs where he can enjoy many of the advantages of country life. It is estimated that improved clothing, together with improved methods of building and heating, have lengthened man's life ten per cent., and if we measure life in deeds, not years, the increase is much more.

Another objection to the use of machinery is that it widens the distance between the rich and poor. It is certainly true that capital receives a greater share of the benefits of modern machinery than labor does. Labor is discontented not because it receives less of the comforts of life than formerly but because it sees others in better circumstances. Our idea of poverty and wealth is comparative not absolute. The trades in which wages are lowest are those in which machinery is used the least.

The moral influence of machinery is a subject well worthy of study but requires more time than I have been able to give it. It may be questioned whether great material prosperity is a benefit to a people or not.

My conclusion, then, is something like this: The use of machinery has been a great benefit to society as a whole, and the laboring classes have shared in that benefit. The injuries resulting from the introduction of labor saving machinery are only temporary, and may be compared to growing pains. They may press hardly on the individual, compelling him to change his employment, but the scale of living in the community is eventually raised. The man whose work is of so low a grade as to come into competition with steam may suffer somewhat, but the intelligent laborer has nothing to fear.

At the College.

Bulletin No. 149, on Feeding Dairy Cows, is out.

T. C. Lewis is not in College this term, and C. H. Hilton takes his place in the library.

Thomas Durkin was called to Geneva, N. Y., last week by the serious illness of his oldest brother.

Mr. and Mrs. Starr, of Laingsburg, and Mrs. James Corcoran, of Elbridge, visited the College Thursday.

The library has just added to its shelves, at an expense of about $200, the first 36 volumes of the Transactions of the American Society of Civil Engineers. Subsequent volumes will be donated to the library.

Mrs. Ella Kedzie entertained a number of friends very pleasantly at a chafing-dish party in her studio in Lansing Friday evening. After supper the guests played six-handed progressive euchre until ten o'clock. The prize, a hand-painted cup and saucer, was won by Mrs. Hendrick.

School opened with chapel exercises on Monday evening of last week. The chapel was filled so that standing room was in demand. Up to date 387 students have enrolled, of which 344 are regular students, and 43 are specials. There are 14 new students in the regular courses.

The library rules have been amended so that neither the current nor the next preceding number of periodicals can be drawn by members of the faculty. Only one periodical at a time can be drawn and this for only a week. Fines are to be collected for any longer time that the periodicals are kept out.

Old Times Come Back.

As a party of ten or fifteen M. A. C. students, on their way home for vacation, were comfortably seated in an east-bound Grand Trunk coach, they began to while away the time by singing college songs and giving the college yell at the different towns through which they passed. After a time they were accosted by a large, jolly, good-natured fellow, who gave one of them a piece of paper containing the following jingle evidently composed for the occasion:

There were some boys got on a train,
They all had ev'rything but brain;
They sang of Cuba and of Spain,
Of winter's winds and summer's rains;
Their fathers' pockets they will drain,
But never will his honor stain.
Good, jolly fellows, come again.

The boys afterward learned that this gentleman was the Rev. John Gray, once a student here with the class of '80, later a student and graduate of Adrian college, then a professor in some western seminary, now pastor of the M. E. church at Clio, Michigan.

What memories come to the college-bred man roused from his book by the old familiar college songs! His book drops in his lap, and he sinks back to revel amid the pleasures of the past. Once more a student, he sits in the twilight of his old corner room. Oh the luxury of living again those old days, even though they were days of poverty! The heart-aches and head-aches are forgotten; but the old room, littered with bats and rackets, class colors and pictures; the old lamp with cracked chimney and tattered shade; the ink spattered table; the never tidy closet, are pictures of memory that will never be effaced. With feet on the table he sits again at his open window and listens to the rasping notes of that old cracked violin in the room above — notes now mellow with age; the harsh cornet's brassy blare to silvery notes have changed; across the campus float the soothing strains of a sweet serenade; he hears the 'busman's "All aboard," the oilman's "aw-il," the study-hour bell, then "stu-dy hour-r-s," but all sounds by memory heard blend in perfect harmony. And that is why professional cares and business perplexities vanish from thought at the sound of the old college songs.

News from Graduates and Students.

Edwin H. Kelley, with '93, is chemist for a Chicago gas company.

W. Roscoe Kedzie, with '98, is again taking regular College work.

S. L. Ingerson is another '98 man who again takes up College work this term.

W. B. Nevins, with '99*m*, after a year's absence, resumes work in College this term.

L. W. Watkins, '93, was in the city on business last week and called several times at the College.

Mr. and Mrs. Thorn Smith, '95, of Cleveland, spent Monday night of last week at the College.

L. J. Bolt, with '99, and Miss Sadie Pelton were married Christmas at the home of the bride, Ravenna, Mich.

William Greiner, with '98, began his second term of school at Smith's Corners, Oceana, county last week Monday.

Thomas A. Chittenden, with '97, who has been spending the summer at railroad work in Syracuse, N. Y., returned last week to College.

R. C. Fisher, '95, is one of Oceana county's hustling teachers. His name appears on nearly every teachers' association program in the county.

While in Indiana, Professor Smith met John A. Nixon, who was a student here in the '80s and is now in the dairy business at Spiceland, Ind., and is doing well.

"Lessons with Plants" is the title of a new botany from the pen of Prof. Liberty H. Bailey, '82, which gives "suggestions for seeing and interpreting some of the common forms of vegetation," with delineations from nature by Prof. W. S. Holdsworth, '78. We shall give a more extended notice of the work in a subsequent issue of the RECORD.

A letter from H. Caramanian, with '00, states that he has gone into the dairy business, making butter to ship to Marseilles from the milk of the buffalo, cow, sheep and goat. His mother is recovering from her illness. His address is Tchoroum, Armenia; but only agricultural matter can be sent him, no personal correspondence.

Ex-President of Oberlin College, James H. Fairchild, has just passed his eightieth year. The *Oberlin Review* for December contains his portrait and a sketch of his life and work. He entered Oberlin as a student sixty-three years ago, "and since that time his connection with the college as student, professor, president and counselor has been unbroken."

She—Can you tell me when the French Revolution occurred?

He—I guess it must have been when the Girl from Paris stepped on a banana peel.—*Ex.*

A Sad Case.—
A man who resided in Me.
Was fond of the works of Hail Ce.
With a wide, vacant smile,
He said, "They're good style."
Alas! the poor man was inse.
—*Carolyn Wells in Life.*

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.

ARCHITECTS.

EARL H. MEAD.—Architect. 115 Washington Avenue N.

BARBERS.

J. H. WOOD—Barber. 106 Michigan Avenue E. College work especially solicited.

BOOTS AND SHOES.

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

CLOTHING.

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

DEWEY A. SEELEY.—27 Wm's Hall. Big Reduction on Winter Clothing.

A. E. DAVIS.—Clothing and Gentlemen's Furnishings. See ad.

CROCKERY AND GLASSWARE.

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

J. B. SIMON.—Fine China, Crockery, Lamps, Tinware, etc. 111 Washington Avenue N.

DENTISTS.

DR. G. W. COLEMAN.—Dentist. 103 Washington Avenue. First stairs north of Michigan Avenue.

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

DR. V. A. LACY.—Dentist. Hours 8 to 12 a. m. and 2 to 4 p. m. 110 Allegan St. W.

DRUGGISTS.

C. J. ROUSER.—Capital Drug Store. 123 Washington Avenue South.

DOWNEY HOUSE DRUG STORE—H. J. Eilenburg. Headquarters Ice Cream Soda.

DRY GOODS.

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

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 adv.

COWLES BROS.—Furniture Dealers. Special inducements to College people. 319 Washington Avenue South.

HARDWARE, STOVES AND TINWARE.

JACOB STAHL & SON.—Wholesale and Retail Hardware and House Furnishings. 211 and 213 Washington Avenue North.

HACK AND BAGGAGE LINES.

M. A. C. STUDENTS—Don't forget W. H. PORTER, the Hack and Liveryman. Rubber tires a specialty. Office 300 Capitol Avenue South, Bell Phone 65, Lansing Phone 133.

HOTELS.

THE NEW GRAND—R. M. Renner, Proprietor. Special rates to students. Washington Avenue S.

THE INGHAM. Grand St. South; 2 doors from Michigan Avenue. Low rates to students.

JEWELERS.

B. P. RICHMOND—Watchmaker, Jeweler and Engraver. 200-202 Washington Avenue North.

W. RAPLEE.—Watches, Clocks, Jewelry, etc. Fine Watch Repairing. 119 Washington Avenue.

CHAS. A. PIELLA.—Practical Watchmaker and Jeweler. Repairing of Fine Watches a Specialty. 121 Washington Avenue N.

LAUNDRIES.

THE VAN GORDER PALACE LAUNDRY. S. P. Lantz, Prop'r. Sage & Westcott, Agts. Room 11, Williams Hall.

STAR LAUNDRY. 208 Michigan Avenue East.

LUMBER DEALERS.

H. W. RIKERD.—Lumber Dealer. Mill Street. See ad.

MERCHANT TAILORS.

WOODBURY & SAVAGE.—Tailors. Student trade solicited. 208 Washington Ave. S.

MUSIC AND MUSICAL INSTRUMENTS.

HOLMES MUSIC STORE.—Pianos, Organs, Bicycles, Musical Mdse. and Sheet Music. Cor. Washington Avenue and Ottawa Street.

PHOTOGRAPHERS.

F. B. LECLEAR—Photographer. Hollister Block.

PHYSICIANS.

A. D. HAGADORN, M. D.—Office hours, 11 to 12 A. M., 2 to 4 and 7 to 8 P. M. Offiice at 212 Washington Avenue S.; home 419 Seymour St.

C. M. WATSON, M. D.—Hours, 2 to 4 and 7 to 8 P. M.; Sundays 12 to 2 P. M. 419 Washington Avenue S. Both Phones.

OCULIST.

C. M. DICKSON, M. D.—Practice limited to diseases of eye and ear. Hours 9 to 12 A. M., 2 to 4 P. M.; Sunday 2 to 4 P. M. First floor Hollister Block.

RESTAURANTS.

GILBERT M. HASTY.—Proprietor Hasty's Gem Lunch. Best meals and Lunches in the city. 117 Washington Avenue S.