

# The M. A. C. Record.

VOL. 5.

LANSING, MICHIGAN, TUESDAY, NOVEMBER 28, 1899.

No. 12

## Experiments in Road Construction.

Prof. Taft is experimenting on a section of the old State road between the hospital and Backus Cottage to test several methods of country road construction. The experimental road is divided into five sections, each illustrating a different method of road construction. In the first section a coating of gravel is spread over the original sand foundation; in the second, a layer of clay is covered with gravel; in the third, a layer of cobble stone is bound with clay then covered with gravel; in the fourth, cobble stone are covered with crushed stone, which in turn is bound with a layer of earth; in the fifth, crushed stone is spread over the original sand foundation and then bound with a layer of earth. While excavating for the new road, which is now nearly completed, the workman unearthed the water-soaked oaken planks over which lumber wagons and other vehicles rumbled on their way to and from Lansing a score or more of years ago, and found many of them in an excellent state of preservation.

## A Good Game at Olivet.

M. A. C. went down to defeat at Olivet, in a game characterized by brilliant individual playing and occasional spurts of good team work on the part of M. A. C., and by consistent, steady team work on the part of Olivet. Occasional long runs around the ends, with good interference, were responsible for most of our gains, while persistent and fierce plunges through our line netted the most ground for Olivet. The writer has never before seen a team make such constant use of its backs as did Olivet in Saturday's game.

The game was opened by Olivet's kicking to our 20-yard line. Four plays carried the ball well into Olivet's territory, but a fumble gave it to our opponents, who quickly rushed it back to our 25-yard line. Here a trial for goal from field failed and Smith returned the ball to our 4-yard line. A moment later Russell went around the end with good interference, dodged two Olivet players, and sprinted an even 100 yards down the field for a touchdown. His attempt to kick goal, coming so soon after his long run, was a failure.

After the next kick-off M. A. C. carried the ball rapidly back to Olivet's 20-yard line, where it was lost on downs. Five minutes later Olivet scored a touchdown by Reynolds, and Evans kicked goal.

McCue kicked to Olivet's 10-yard line and Olivet again began line-bucking. Ranney's fierce tackling, however, compelled Barnes to attempt a punt, which Russell blocked nicely. The ball rolled out on clear ground and in a trice "Casey" sped away with it for a 40-yard run and a touchdown. Russell kicked goal.

Olivet kicked over the goal line, Smith made a touch-back, Russell punted out from M. A. C.'s 25-yard line, and it was Olivet's ball on our 50-yard line. Then came one of

the most remarkable plays ever seen on a gridiron. Olivet, unable to advance the ball, punted and Ranney dropped back to receive the ball. He caught it on our 30-yard line, and then, twisting and dodging, part of the time with interference and part of the time alone, he made his way for 80-yards through the scattered Olivet players and planted the ball behind the goal posts for a touchdown, at the same place where, a year ago, he made the only other touchdown of his life. Russell's goal brought the score for the first half up to 17 for M. A. C., Olivet having but 6 to her credit.

In the second half came a radical change in the aspect of things. Olivet simply mowed the "Farmers" down. During the first 15 minutes M. A. C. had possession of the ball only during one brief moment, but Olivet carried it across our goal line for two touchdowns, which with two goals, brought her score up to 18. And there it ended—Olivet 18, M. A. C. 17—for although the "Farmers" came out of their trance and played so fiercely as to keep the ball all of the time in Olivet's territory, they could not get nearer than four yards to a touchdown.

The game was fierce but remarkably clean. But one man dropped out, Alfsen, who was ill when the game began, giving way to Tower in the second half. Elliott, Hungerford, Taylor and Reynolds were Olivet's most aggressive players. Russell and R. W. Case made the most frequent and longest gains for M. A. C., but for all-round work—the fiercest kind of tackling and the grit that makes a man play through one whole half on one leg—Captain Ranney is in a class almost alone.

Following is the line-up:

M. A. C.	OLIVET.
McCue . . . . .	L. E. . . . . Hall (Capt.)
Alfsen, Tower . . . . .	L. T. . . . . Hungerford
A. H. Case . . . . .	L. G. . . . . North
McLouth . . . . .	C. . . . . Taylor
Skinner . . . . .	R. G. . . . . Mackey
Parks . . . . .	R. T. . . . . Bowler
Smith . . . . .	R. E. . . . . Evans
Ranney (Capt.) . . . . .	Q. . . . . Ellis
Russell . . . . .	L. H. . . . . Elliott
R. W. Case . . . . .	R. H. . . . . Reynolds
Curtis . . . . .	F. B. . . . . Barnes

Miss Blunt, Miss Keller and seven co-eds accompanied the team and gave encouragement from the side lines.

The Thanksgiving football game will be played in Lansing on the old baseball park about two blocks southwest of the Capitol. Seats for about 2,000 people will be erected along the side lines. The price of admission to any seat or to any part of the grounds outside of the ropes will be 25 cents. If there is a sufficient surplus after all expenses are paid, the price of admission will be refunded to members of the Athletic Association. The game will be called at 12 o'clock.

Two tie games of football were played on the campus Saturday. In the forenoon game between Backus Cottage and Bachelors' Hall each side scored one touchdown. The afternoon game between sophomores and freshmen resulted in no score for either side.

## State Board Meeting.

The November sessions of the State Board of Agriculture were held at the Hotel Downey on Thursday evening and Friday forenoon of last week. The members present were: Messrs. Wells, Monroe, Allen, Marsh, Pres. Snyder and Secy. Bird.

The Report of the State Board of Corrections and Charities, recommending certain minor changes in the plans for ventilation and heating in the new women's building, was received and referred to the committee on buildings with power to act. Matters concerning the Upper Peninsula experiment station were put in the hands of Director Smith and the experiment station council.

Ann Arbor was selected as the place for holding the annual round-up farmers' institute in March. The election of Miss Belle Crowe to the position of instructor in domestic science was approved; repairs in Prof. U. P. Hedrick's office were provided for; the department apportionments for the six months ending June 30, 1900, were made, and Prof. Wiel was authorized to attend the annual meeting of the American Society of Mechanical Engineers in New York the first week in December.

The resignation of D. J. Crosby as instructor in English was accepted, to take effect Jan. 1, 1900. Mr. Crosby gives up teaching in order to take up post graduate studies, but will continue to do editorial work on the M. A. C. RECORD.

A matter of considerable interest to young women and to agricultural students is the provision made by the Board for additional senior elective courses in bacteriology. As the schedule of electives is now arranged there is offered one term of preliminary bacteriology in the fall term of the senior year. The plan is to offer additional senior elective courses in agricultural, dairy, hygienic and household bacteriology in the winter and spring terms.

## Our '99 Graduate in Australia.

Joseph A. Bulkeley '99 writes, under date of October 18, that he arrived safely at Sydney, New South Wales, Australia, on the first of that month, and found things so little changed that he could hardly believe that he had been away over two years. Upon his arrival home he was given a three-weeks' vacation, most of which he employed in preparing his report of observations and work in America.

On Monday, October 23, he began work as professor of agricultural science and assistant in chemistry in the Hawkesbury Agricultural College, his Alma Mater. We quote below a paragraph that appeared in the *Lithgow Mercury* of October 6.

"Mr. J. A. Bulkeley, who has been successfully pursuing his agricultural studies in the United States during the past couple of years, returned to Sydney at the end of last week. In conversation with a reporter he gave some account of his experiences and impressions. Mr. Bulkeley went by way of Van-

couver, and took up his residence for a while at the Michigan Agricultural College. There he took the degree of Bachelor of Science. He subsequently toured the agricultural districts of the States and Canada, and went thence to London, where he made some inquiries relative to the Australian fruit export. On his way back to Australia he stayed some time at Naples, inquiring into the fruit industry in that locality. 'Generally speaking,' he said, 'the American farmer is more up to date in his methods than the Australian, and he takes more advantage of labor-saving machinery. He goes in more for intensive cultivation than is generally the rule in Australia. He is satisfied to take up a smaller area of ground and work it for all it is worth. \* \* \* I was much struck, too, by the interest which the American farmer's wife takes in agricultural matters. At an annual convention the women meet and discuss such sections of farming work as come within their domain, and as a consequence their sphere of usefulness is much enlarged.'

## Not Enough Horse.

L. S. Munson '97 is enjoying his work in Washington, and judging from a quotation that we make from a recent letter from him, he has not lost appetite because of lonesomeness.

"My work here is going along very nicely. I have a very pleasant man—Dr. Bigelow—to work under. Thus far have had quite a variety of work and expect soon to have a change from work on metals to work on animal fats. Today we received a barrel of horse meat from an inspector in New Jersey. The division is trying to establish some means of detecting horse meat when used as a substitute for beef. I have been working over the stuff all the afternoon, and hope to have some work with it later. This lot came from Hoboken, I believe, where there is a regular business conducted, of killing worn out and worthless horses and sending their carcasses to Norway as human food. I wanted very much to have a meal out of what came in today, but the supply was somewhat limited and I had to forego the pleasure."

## Apple Rust.

At the meeting of the Botanical Club Tuesday night, Mr. G. M. Bradford spoke on "Apple Rust." He began by saying that this rust consists of two distinct forms found on two different plants; namely, the apple and the red cedar. The rust develops by means of spores. The spores of the form found on the apple will develop only on the cedar, and vice versa. This rust often affects the fruit as well as the leaves of the apple, but is only destructive where red cedar is found in abundance.

Under observations, Prof. Wheeler stated that, if the warm weather continued much longer, the fruit buds were likely to become injured by swelling.

Tuesday, Nov. 27, Dr. Marshall will talk on "Yeast Plant."

W. S. P.

# THE M. A. C. RECORD.

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## Official Directory.

Y. M. C. A.—Regular meetings Sunday evenings  
at 7:00 and Thursday evenings at 6:30. C. H.  
Parker, President. D. S. Bullock, Cor. Secretary.

Y. W. C. A.—Weekly meetings for all ladies on  
the campus, Thursday evenings at 6:20, in Abbot  
Hall. Sunday meetings with the Y. M. C. A.  
Mable Brigham, President; Elizabeth Johns, Cor.  
Secretary.

KING'S DAUGHTERS—Meet alternate Wed-  
nesdays. Mrs. C. L. Weil, Leader. Mrs. M. L.  
Dean, Secretary.

NATURAL HISTORY SOCIETY—Meets  
alternate Wednesday evenings at 6:30 p. m., in  
the Zoological Lecture Room. B. Barlows, Presi-  
dent. W. K. Wonders, Secretary.

BOTANICAL CLUB—Meets Tuesday evenings  
at 6:30 in the Botanical Laboratory. G. M. Brad-  
ford, President. W. S. Palmer, Secretary.

ADELPHIC SOCIETY—Meetings every Satur-  
day evening at 7:00, Class room A., College Hall.  
D. Linkletter, President. A. M. Gibson, Secre-  
tary.

COLUMBIAN LITERARY SOCIETY—  
Meetings every Saturday evening at 7:00. Fourth  
floor, Williams Hall. W. T. Parks, President. C.  
W. Kaylor, Secretary.

ECCLECTIC SOCIETY—Meetings every Satur-  
day evening at 7:00, Fourth Floor, Williams Hall.  
L. L. Appleyard, President. F. Carpenter, Secre-  
tary.

FERONIAN SOCIETY—Meetings every Thurs-  
day afternoon at 4:00, West Ward, Wells Hall.  
Harriette Robson, President. Fleta Paddock, Sec-  
retary.

HESPERIAN SOCIETY—Meetings every Sat-  
urday evening at 7:00, West Ward, Wells Hall.  
J. R. Thompson, President. F. W. Owen, Secre-  
tary.

OLYMPIC SOCIETY—Meetings every Satur-  
day evening at 7:00, Fourth Floor, Williams Hall.  
J. G. Aldrich, President. S. Marsh, Secretary.

PHI DELTA THETA FRATERNITY—  
Meetings every Friday evening at 7:30, East Ward,  
Wells Hall. H. B. Clark, President. A. Trebil-  
cock, Secretary.

THEMIAN SOCIETY—Meetings every Fri-  
day afternoon from 5 to 6 Phi Delta Theta Rooms,  
East Ward, Wells Hall. Harriet O'Connor,  
President. Kate Nichols, Secretary.

UNION LITERARY SOCIETY—Meetings  
every Saturday evening at 7:00, U. L. S. Hall.  
Paul Thayer, President. T. H. Spindlo, Secretary.

TAU BETA PI FRATERNITY—Meetings on  
alternate Thursday evenings, Tower Room, Me-  
chanical Laboratory. William Ball, President.  
C. H. Bale, Secretary.

CLUB BOARDING ASSOCIATION—H. L.  
Chamberlain, President. Geo. Severance, Secre-  
tary.

M. A. C. ATHLETIC ASSOCIATION—W. T.  
Parks, President. H. P. Weydemeyer, Secretary.

## The Ship Yards at Newport News

FROM A LETTER BY L. C. BROOKS '92, ELEC-  
TRICAL DRAFTSMAN FOR THE U. S.  
NAVAL CONSTRUCTOR AT  
NEWPORT NEWS.

"Newport News is builded as a  
city that is compact together." Twelve years ago it was little more  
than a settlement of negroes, with a  
few whites, and was not even a vil-  
lage. About that time the Newport  
News Ship Building and Dry Dock  
Company located here, and the in-  
coming of skilled workmen brought  
the real estate men and other busi-  
ness people, so that now it is a city  
of about 20,000 inhabitants. The  
land is low around here and isn't  
very well adapted to laying out a  
city, so the desirable property is  
rather high. A lot 25 x 100 feet

sold for \$20,000 a short time ago.  
The Chesapeake & Ohio Railroad  
use this city as their terminus, and  
give employment to about 800 men,  
largely "niggers," as they are called.

Newport News ranks fourth in  
amount of exports—largely grain  
and stock. I was aboard the Eng-  
lish steamer "Rapidan" last sum-  
mer. She is a monster—475 feet  
long, 52 feet beam, and carries  
11,000 tons of freight, a part of  
which is 870 cattle. Now she is  
carrying British troops and supplies  
to South Africa.

However, the ship yard is the  
chief center of industry; at present  
they employ between 5,500 and  
6,000 men and boys.

In the merchant class, they have  
under construction two passenger  
steamers for the Pacific Mail Co.  
I think these are 525 feet long.  
They are just started on the ways.  
There are also two passenger steam-  
ers for the Cromwell line, New  
York to New Orleans, one of  
which is still on the ways, to be  
launched in about a month. The  
other one was launched last week.

They have nearly completed the  
last of the Morgan line freighters,  
which consisted of four ships and a  
tug boat, the ships plying between  
New York and Gulf ports. They  
sold their old ships to the govern-  
ment as transports of the "Yankee"  
and "Dixie" class, and the govern-  
ment wished to retain them, so the  
company built new.

This yard has had six launches in  
the last year, two of which I have  
seen. It is quite interesting. The  
few strokes of the saw, the cracking  
of the last fibers of the sliding ways,  
the foam of the champagne on the  
side of the ship, and the ship is in  
the water, floating with the tide.

Perhaps the most interesting  
feature of this yard is the making  
of battleships, of which there are  
five under construction. The moni-  
tor "Arkansas" and battleship "Mis-  
souri" are just started, will be fin-  
ished in about two years. "Mis-  
souri" is a sister to the "New Maine".  
The "Illinois", a sister to "Ala-  
bama" and "Wisconsin" is about  
three-quarters completed. The two  
lately constructed ships "Kearsarge"  
and "Kentucky" will go into com-  
mission soon after the first of the  
year. The "Kentucky" left for  
New York today to receive the bal-  
ance of her equipment for her offi-  
cial trial next Thursday. The  
"Kearsarge" had her official trial  
about two months ago and received  
the record of 16.84 knots. Con-  
tract called for 16 knots.

The "Kearsarge" and "Kentucky"  
are the only ships that, as yet, have  
complete electrical equipment for  
auxiliary machinery. By auxiliary  
machinery I mean turret turning,  
rammer for 13-inch guns, hoists  
for ammunition for all guns, blow-  
ers for ventilation, boat cranes and  
winches. The main battery of  
these ships consists of four turrets,  
two for 13-inch guns and two for  
8-inch guns. The 8-inch ones are  
mounted on top of the 13-inch ones.  
The secondary battery consists of 5-  
inch guns, one and six pounders, and  
rapid fire guns.

Take it all together, the problem  
of a battleship is a very complex one.  
All of the accommodations of a city,  
except street cars, must be had for  
about 450 or 500 men,—storeroom  
for coal, food, ammunition, mater-  
ial and repair machinery, drainage,  
electric lighting, ventilation, and  
comfortable quarters properly ar-  
ranged for the different classes of

men. The general plans for the war-  
ships are laid down in Washington,  
and at each yard where ships are be-  
ing built there is located a naval con-  
structor, who looks after the detail  
construction. A drawing (finished  
plan) is made of each part of the  
ship. These drawings are photo-  
graphed and the photographs kept  
with the ship, so that if anything  
gives way they have something to  
guide them in repairing. Each  
government draftsman is assigned a  
certain part of the ship to look after.  
He has to inspect the work as it is  
going into the ship, make the finish-  
ed plan and, if need be, test it. That  
is what I have to do with the elec-  
trical apparatus. I find my General  
Electric experience very helpful to  
me and enjoy my work very much.

On account of the immense amount  
of handwork that has to be done,  
and the additional work to be put on  
after the ship is nearly completed,  
which escapes notice in designing, the  
completed ship costs a great amount  
of money. Then in battleships there  
is the item of armor at \$400 per  
ton. As I said before, the rough  
work is done by "niggers," and  
they are a caution,—can do more  
loafing to the square inch, and give  
more back talk, than anything I  
ever saw. Very few of them are  
skilled at all.

The American liner "New York"  
came into dry dock here today for  
her annual overhauling. I tell you,  
she is a big one. I was all over her  
tonight, and wouldn't object to tak-  
ing my wedding trip on her. There  
are also many interesting places near  
here: Soldiers' Home and Hamp-  
ton Institute at Hampton, about  
seven miles distant, Jamestown,  
Yorktown, Petersburg, Williams-  
burg, etc., are not very far away. I  
hope to be able to take some of  
these trips soon.

## Mechanicals Visit Chicago.

H. C. WEATHERWAX '01M.

On the afternoon of Nov. 16, a  
party of about 40 mechanical seniors  
and juniors, accompanied by Prof.  
Weil and Mr. Bradford, started for  
Chicago from the Grand Trunk  
depot at Lansing. While they were  
waiting for the train, someone sug-  
gested that the crowd have its pic-  
ture taken. They accordingly  
gathered on some adjacent flatcars  
while Mr. Martin pressed the but-  
ton.

It was a merry and light-hearted  
crowd that boarded the 2:33 west-  
bound flyer; and they sadly missed  
the quieting and restraining in-  
fluence of the agriculturals, as they  
lent wings to the hours with songs  
and college yells. After an enjoy-  
able trip, Chicago was reached and  
headquarters established at the Sara-  
toga. As the party went into the  
hotel, several bystanders inquired if  
they were a football team intending  
to play one of the local colleges.

Friday morning the Chicago Ed-  
ison Power Co. and the power plant  
of Siegel and Cooper's large store  
were visited. Mr. Collins, the chief  
engineer of the Chicago Edison Co.,  
was very courteous and obliging,  
and took great pains to explain every  
detail about the machinery. The  
Chicago Edison Power Co.'s plant  
contains five large Porter Allen and  
three Corliss engines, furnishing a  
total of 15,000 horse power and cap-  
able of running 100,000 incandescent  
lamps. The boilers are furnished with  
water from the Chicago river. Four  
large wrought iron filters abstract

filth and impurity from the river  
water and render it fit for the boil-  
ers. One of the novel pieces of  
machinery in this plant is a piston-  
less steam pump employed to pump  
water out of a tunnel under the  
river.

The main points of interest in the  
Siegel and Cooper plant were the  
blowers for operating the cash con-  
veying machinery, and the fire alarm  
system. The latter consists of a  
number of tubes of mercury situated  
in different parts of the building,  
which, when raised above a certain  
temperature, expand, closing an  
electric circuit and thus ringing an  
alarm.

In the afternoon, one section went  
to the Illinois Steel Works while  
the other visited Frazer & Chalmer's  
machine shop and foundry. This is  
one of the largest boiler and engine  
manufacturing plants in Chicago.  
They have a well equipped machine  
shop containing, among other things,  
several large vertical turning mills,  
in which they were turning pulleys  
and balance wheels. In the black-  
smith shop a steel shaft weighing  
one and a half tons, was being  
forged.

After a short ride on the Metro-  
politan Street Railway the power  
plant of that road was reached.  
This is one of the cleanest and neat-  
est plants visited during the entire  
trip. On the main floor are four-  
teen 3,500 horse power engines  
driving seven motors which yield a  
current of 4,200 volts and 3,000  
amperes. The boilers were pro-  
vided with Babcock and Wilcox  
mechanical stokers. These are  
operated by a small steam engine  
which drives a line shaft with an  
eccentric and connecting rod at each  
stoker.

The most interesting and import-  
ant plant visited is the South Works  
of the Illinois Steel Co. It is situ-  
ated in the south end of the city,  
twelve miles from its centre on the  
lake shore. It contains 600 acres  
and 40 miles of railroad. The first  
thing of interest which was shown  
to the visitors was one of the several  
blast furnaces. It happened, luckily,  
that they were tapping it at that  
time. The melted metal, instead of  
being run into pigs, as is usually  
done, was run into large ladles  
mounted on trucks, which were  
hauled up a long incline to the con-  
verter house, about 300 yards dis-  
tant. There the contents of the cars  
were poured into the converters, into  
which air under a pressure of twenty  
pounds per square inch was forced.  
This was kept up for twenty min-  
utes, during which the dazzling  
brightness of the flame and the  
brilliant showers of sparks from the  
melted metal defied description.  
Then the molten spiegeleisen was  
added and the metal was steel. A  
train of earthen moulds was drawn  
up, into which the contents of the  
converters were poured. After  
remaining in the soaking pit, or  
oven, a few hours to cool off and  
attain a uniform temperature, the  
ingot was conveyed by a crane to  
the blooming train, a system of  
carrying and working rolls, where,  
by successive rollings it was drawn  
out into a rail about 60 feet long.  
The rail, while yet hot, was sawed  
up into twenty-foot lengths and was  
then allowed to cool down from a  
red heat for the first time since it  
left the ore. The largest freight  
vessel on the Great Lakes, the  
Maliato, was unloading a cargo of  
6,900 tons of ore at the dock. Most

of the ore used in this plant comes from Northern Michigan.

On Saturday afternoon, after all the places on the list had been visited, except Armour's great cattle menagerie, someone suggested that, as we had seen everything else, we go and "clean up" on Armour's. The motion was immediately amended and the objectionable and ambiguous clause, "clean up," removed. Accordingly, all those with strong stomachs started out to inspect this far-famed embalming establishment, and nerved themselves up to witness a wholesale massacre of the lower species. For the second time during the trip, the absence of the agriculturals was regretted deeply, for many of the operations in this plant would have been of great interest to the students of veterinary science. The easy grace and faultless accuracy with which the carcasses were dissected, would have been appreciated far more by agricultural sophomores than by the more prosaic matter-of-fact mechanicals.

For days afterwards some were haunted with the echo of the wail of those innocents as they unceremoniously hastened to an untimely and unhonored doom. The mortality in the pork department was great—about 17 per minute. One spectator aptly described the scene by saying it was "perfectly killing."

We will next take a glance at the sausage department. The first thing that met one's gaze here was the pulverizing and refrigerating machinery which accomplishes the task of rendering the unsalable and tough portions of the meat palatable and salable. The visitors were so unlucky as not to be able to witness the actual operations of disinfecting and embalming, since this laboratory was closed. However, those who visited this remarkable institution will cherish in their memories a vivid recollection of the choice fragrance and overwhelming fetid odor of the stockyard, which even "sen sen" applied in the ratio of 16 to 1 could not counteract.

Saturday evening, after a good wash and partial disinfection, several of the more adventurous ones went out to investigate the mysteries of some of the dime museums and to take in the "Western Metropolis" by moonlight. A few of them came back wiser and sadder, having collected some useful information concerning adjustable stairs. These gentlemen will henceforth be good authority on questions relating to the action of gravity upon bodies on an inclined plane. This ended an enjoyable and instructive trip.

Most of the party returned on the midnight train Saturday evening, leaving a few who had not done with their sight-seeing to return later.

At the College.

Miss Pearl Kedzie is expected home this week.

Mrs. A. C. Bird is entertaining her mother, Mrs. St. John of Ann Arbor.

Prof. F. S. Kedzie returned last Tuesday from his trip to New Mexico.

The Phi Delta Theta and the Thesian societies held a union meeting in the Phi rooms last Saturday evening.

Mrs. J. H. Kocher, Chestonia, Mich., while on her way to Stock-

port, O., last Friday, called on her son, A. E. Kocher '02.

C. E. Walter is preparing photographs of college views for our 1900 calendar.

Mrs. H. F. Buskirk of Wayland visited her daughter Miss Bessie Buskirk '03 last Friday and Saturday.

Careful in Details.

The Springfield Library Association has increased the light literature of librarianship by a little work on "The Complete Librarian," written and printed by the library training class as a means of gaining practical knowledge of printing. There are seven chapters of five or six lines each, in which the duties and qualifications of the "complete librarian" are pointed out. Thus chapter 3 deals with "The Cow"—"When the cow comes into the library, and seems to wish simply to browse, not to study, the librarian will quietly put her out; the COMPLETE librarian will milk her first."—The Library Journal.

FOUR EPITAPHS.

"Deep wisdom—swelled head—Brain fever—he's dead. A Senior."
"False fair one—hope fled—Heart broken—he's dead. A Junior."
"Went skating—'tis said—Floor hit him—he's dead. A Sophomore."
"Milk famine—not fed—Starvation—he's dead. A Freshman."
—University Gynec.

Lawrence & VanBuren PRINTING CO., Ottawa St. E. Lansing, Mich.

LOTS FOR SALE IN "OAKWOOD"

On Easy Terms—Low Prices.

Buy a lot and we will lend you the money with which to build a house.

CITY ADVANTAGES,

including electric lights, sewerage and regular street car service with

COUNTRY TAXES.

Buy now while prices are low. Rent of rooms alone will pay TEN PER CENT. NET on the investment.

Enquire of either

DR. J. W. HAGADORN, EDWARD CAHILL, C. D. WOODBURY, or A. C. BIRD.

IF IT IS

HARDWARE

you can get it at...

NORTON'S

111 Washington Ave. S.

COLLEGE BUS HEADQUARTERS.

We have made unusual preparations for Fall and Winter Underwear business and are in position to show almost everything desirable in Silk, Wool or Cotton garments.

Combination Underwear....

is constantly growing in popularity; never sell a customer a two piece suit after wearing combination. Avoids double thickness about waist, clothing fits better and life is brighter. All qualities in men's, women's and children's suits.

Don't get so excited over the merits of combination underwear that you forget we have

THE UP-TO-DATE HAT STOCK

OF LANSING. Would like you to come in and see for yourself.

Neckwear department chock full of New Bright Ties.

Students' Patronage Solicited.

ELGIN MIFFLIN.

Furniture Headquarters.

Cots at - \$1.25, \$1.50, \$2.00 and \$2.50
Wire Springs at - \$1.50 and \$2.00
Mattresses from - \$2.00 up
Tables, Rockers, Bureaus, Iron Beds.

All goods delivered free to College.

M. J. & B. M. Buck.

R. B. Shank & Co.,

Leading Grocers and Confectioners.

Regent Shoes!

After selling this line of men's fine shoes several years, we unhesitatingly claim that they are equal to most \$3.50 shoes

and positively the

Best \$3.00 Shoes

in the world. Made in light, medium and heavy weight from stock selected for its excellent wearing quality. Sewed by the welt process—no squeak—smooth inner soles and flexible.

C. D. WOODBURY, HOLLISTER BLOCK.

Simons Dry Goods Co.

CLOAK DEPARTMENT SECOND FLOOR.

We offer a fine line of Ladies' and Misses' Jackets.

3 Specials at

\$7.00

\$8.50

\$10.00 each.

Large line of Dress Skirts, House Jackets, Mackintoshes, Shirt Waists, etc.

OPENING DISPLAY OF...

Fur Jackets, Collarettes, Scarfs, Etc.

THREE FLOORS { 1st—Dry Goods, 2d—Cloaks and Ready Made Garments, 3d—Carpets and Draperies. ELEVATOR.

### News from Graduates and Former Students.

Dwight C. Sheldon with '93 is practicing law at Belding, Mich.

Charles Holiday with '93 is a window trimmer at Traverse City.

G. S. Rutherford with '84 is superintendent of the Bradstreet Co., Bay City.

W. C. Champion with '00m is working for the Olds Motor Vehicle Co. of Detroit.

W. F. Schermerhorn with '91 is in the retail lumber business at Reading, Mich.

Fred B. Philips with '94 is secretary of the John Philips Co., Ltd., 51 E. Fort St., Detroit.

Miss Myrtelle Moon with '02, this year a student in the medical course at Ann Arbor, visited at M. A. C. Friday and Saturday.

W. H. Parker with '86 is general agent for the New England Mutual Life in western New York, with office at 740 Guaranty Building, Buffalo.

Several M. A. C. people have received invitations to attend the wedding of Prof. J. R. McColl '90, which will occur near the opening of the new year.

Archie L. MacBean with '01 has been manager of the Grand Marais Lumber Company's retail yard since last June. He expects to spend the winter in Central College, Kansas City, Mo.

A. T. Stevens '93 goes soon to a good position on a fruit farm at Tuckerton, Pa. At present he is assisting the chemist of the Wolverine Sugar Co., and in the same factory is M. L. Jones with '92.

H. F. Johnson with '90 was U. S. Inspector at the building of the 300-foot lock at Sault Ste. Marie from 1892 to 1895, and is now Recorder for the U. S. Lake Survey, with permanent address at 308 N. Rowe St., Ludington, Mich.

Among those who called on the mechanicals that went to Chicago recently were: T. H. Libby with '99m, C. K. Chapin with '97m, I. L. Simmons '97m, E. R. Austin with '98, Thomas L. Bradford with '92m, Prof. P. B. Woodworth '86, C. E. Hoyt and Max Beutner.

The marriage of Horace B. Fuller '92 and Miss Axie Warren with '02 was solemnized at the home of the bride's parents in Potterville last Tuesday. Among the M. A. C. people present at the wedding were Misses Mina and Jessie Fuller, George B. Fuller, Miss Jennie Biglow, and Miss Maud Briley. Mr. and Mrs. Fuller will make their home in Lewiston, where the former is editor of the *Lewiston Journal*.

### Down with Fever and Sick of the Philippines.

Dr. Theodore Cole received a letter Saturday from his son, Otis R. Cole with '98, who is with Co. F, Twenty-first United States infantry, at Calamba Port, Philippine islands. The letter is dated Oct. 6, and in part reads as follows:

"We had quite an attack day before yesterday. All companies but ours were mixed up in it. The 'niggers' attacked us from the front but were beaten back with three 2-10 shells and volleys from the rifles. They lost very heavily, and our loss was two killed and six

wounded. We had been sleeping with our shoes on for several nights waiting for it to come, but did not expect nearly so fierce an attack. They will probably leave us alone for some time now, as they got a clubbing they will not soon forget.

"I am just at present trying to get over an attack of fever. I was in bed four days, and am still occupying quarters in the hospital. The doctor called it the dengue fever. Men are taken sick every day, and after spending a few days in the regimental hospital are shipped to the big hospital at Manila to die or get well. This company is represented down there by about 25 men, and other companies in comparison.

"What Andy Smith said of Porto Rico being no place for a white man would apply very nicely to this place, only it is a wonder how even the 'niggers' live here. I am heartily sick of it, and have only been here about a month. Everybody expects a big movement and the final round-up soon, and after that our stay in this hole will be short. I wish it would take place soon, for, as I said before, I am sick of the climate and the 'niggers'—to say nothing of the centipedes and tarantulas, which are very numerous. We just killed one of the latter that measured over two inches across."

Tom—Your hair's getting thin.

Dick—Yes; I've been using anti-fat—*Wrinkle*.

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Don't you think it pays to buy your Drugs at Cut Rates? You save money and the increased volume of business pays us.

TRY IT.

## ALSDORF & SON,

CUT RATE DRUGGISTS and PHOTOGRAPHIC SUPPLIES

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DEALER IN

DIAMONDS, WATCHES, JEWELRY,

Clocks, Silverware, Art Goods.

121 Washington Ave. N., LANSING, MICH.

## Employees of M. A. C.

Desiring to build should not purchase their material before consulting with

Hiram Rikerd,  
Lansing, Mich.

Lumber of all kinds.  
Interior Finishing a specialty.

PRICES RIGHT.

Office and Factory, Mill St.  
Both Phones.

## Davis Clothing Co.

103 Washington Ave. S.

COME ON BOYS—

We have all the latest up-to-date styles and patterns in

CLOTHING, FURNISHING GOODS AND HATS.

We also keep Sweaters, Supporters, Foot Ball Pants and Jackets.

We are glad to see the old men back and will be pleased to have the new men call. Make our store your headquarters while down town, it is a handy place to leave your packages. WE ARE ONE PRICE.

WE SELL FOR CASH ONLY.

DAVIS CLOTHING CO.

## BICYCLE and ELECTRICAL SUPPLIES.

Also the largest Repair Shop in Lansing fully equipped with power machinery.

We pay all transportation on wheels to and from College when repairs amount to one dollar or more.

Capitol Electric Engineering Co.  
321 Washington Ave. S.

## ALL MEATS....

May look alike to you, but there is a very great difference in the quality we handle and that sold by some other markets. We handle none but the very best. Like the pudding, the proof of good meats is in the eating. A trial will convince you that you ought to trade with us.

We make daily trips to the College.

BOTH PHONES. Careful attention given to phone orders.

GOTTLIEB REUTTER.

Washington Ave. South.

## DIRECTORY

### LANSING BUSINESS and PROFESSIONAL MEN

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

#### BARBERS.

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

#### BOOKS AND STATIONERY.

LANSING BOOK AND PAPER CO. Waterman and Sterling Fountain Pens, Stationery, Pictures, Frames, Wall Paper. 120 Wash. Ave. N.

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

#### BOOTS AND SHOES.

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

#### BICYCLES.

GEO. H. RICHMOND. Pierce Cycles. Full line of sundries. Repairing and renting at reasonable rates. 200 N. Washington Ave.

#### CLOTHING.

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

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

#### CROCKERY AND GLASSWARE.

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

#### DENTISTS.

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

D. R. DAWLEY, M. D., D. D. S. Office over Postal Telegraph Co., Michigan and Washington aves.

D. E. PARMELEE—Dentist. 218 Washington Ave. south. Opposite Hudson House.

#### DEPARTMENT STORE.

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

#### DRUGGISTS.

ALSDORF & SON—The Druggists. Two stores, 102 Washington Ave. N. 335 Washington Ave. S. See ad.

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

#### 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 ad.

#### GROCERS.

R. B. SHANK & CO., 200 Washington Ave. S. The leading grocers. Both phones. Daily delivery to the college.

#### HACK AND BAGGAGE LINES.

M. A. C. STUDENTS—Don't forget W. H. PORTER, the Hack and Liveryman. Rubber tires a specialty. 300 Capitol Ave. S. Both Phones.

#### HARDWARE, STOVES AND TINWARE.

NORTON'S HARDWARE—General Hardware, Stoves, Tinware, Granite ware, Cutlery, etc. 111 Washington Ave. South. See ad.

#### INSURANCE.

THE DYER-JENISON-BARRY CO., LTD., (Incorporated) 108 Mich. Ave. West. All kinds of the best insurance. Strongest agency in city.

#### JEWELERS.

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

#### LAUNDRIES.

THE VANGORDER PALACE LAUNDRY. College agents, C. H. Hilton, 97 Wells; Irving Gingrich, 47 Williams. S. P. Lantz, Prop.

#### LUMBER DEALERS.

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

#### MERCHANT TAILORS.

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

JOHN HERRMANN'S SONS. Fine Tailoring. 218 Washington Avenue N.

#### OCULISTS.

JOSEPH FOSTER, M. D.—Eye, Ear, Nose and Throat. Hours 9 to 12 A. M. City National Bank Building, Lansing.

#### PHYSICIANS.

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

D. R. J. M. COLLIER.—123 Washington Ave. south. Office over Capital Drug Store. Residence 310 Seymour St.

#### RESTAURANTS.

GILBERT M. HASTY.—Proprietor Hasty's Gem Lunch. Best meals and lunches in the city. Quiet place for ladies. 113 Wash. Ave. S.