A Retrospect.

Autumn has come, and once again
The waving trees and quiet green
Of College lawns our gazes greet,
With beauty-spots rainbowed between.

Once more we're back from town and farm,
To view the landscape of the Past;
And to the gateway wander down
By the flowing Cedar—still and fast.

Once more the College halls resound
With cheerful laughter, shout and song.
And 'tis a joy to grasp the hand
And speak the name forgot so long.

We would remember, e'er we part,
The boys that 'neath a Southern sky
Have risked their lives to a foreign foe,
Since last we bid them a fond goodbye.

We would remember those since gone
To face Life's battle for the start.
We would remember those new come
To join us—mind and hand and heart,

And with her shades, her winding streets, Her changing blue sky overhead, Her fragrant air in spring-time, each With the sweetest perfumes, flower-fed;

We still shall love thee, M. A. C., Wher'er our several pathways are; And to thee in our calm retreat Our memories wander from afar.

C. E. P.

Special Course in Cheese Making.

The second special cheese course at this College-will begin November 28 and continue until December 23. The estimated total expense of the course, including fees, white suits, books, board and street car fare, is \$20.90. This estimate does not include railroad fare nor incidental expenses.

Since cheese making is an art, the only way that proficiency can be attained is by practice. Each student will therefore make cheese every day of the course, the practical work being supplemented by such lectures and laboratory work in dairy chemistry and bacteriology and such practice in the manipulation of the Babcock test and in book-keeping as will fit the student to understand what is taking place inthe cheese vat and to carry on the business of the factory.

To fully appreciate the instruction and to be most benefited by it the student should have worked at cheese making for at least one full The experience of last season. winter teaches that those who have been longest in a cheese factory are the ones who derive the most good from the course. They have learned the difficulties in the way of the cheese maker and are able to comprehend most fully the means suggested for overcoming these obstacles. While the course alone will not fit the beginner either to manage a cheese factory or to succeed in making good cheese under adverse conditions, it will pay him because he will gain from it in four weeks as much as from a year's experience in a cheese factory.

Our Foreign Students.

That this institution holds very high rank among the Colleges of the world is shown by the number of foreign students who come here and by the causes that bring them. Last year we mentioned the coming of Joseph-Bulkeley from Australia; his government sent him here to

learn American methods in agriculture. This year we have three more students from across the water, who have come to this College to complete their education.

Thomas H. Spindlo, who is taking the regular agricultural course, comes from Knowl Hill, Twyford, Berks, England. Desiring a college education that would prepare him for his chosen work—chemistry, he secured catalogues from the principal American colleges, compared the courses offered, and decided to come to the Michigan Agricultural College. He expresses himself as very agreeably surprised at the beauty of our campus and as more than pleased with the classes he has attended and with the College in general.

Bedros H. Takvorian is an Armenian, born in Constantinople, where he spent all his early life and for three years attended Robert College, an American missionary college. Since 1894, he has lived at Varna, Bulgaria, at which place his parents now reside. He came to Boston, where he has a brother in business, with the intention of going to some American college. In Boston he met friends of H. Caramanian, a former Armenian student at M. A. C., who advised him to come here, He came in June, spent the summer on the farm and entered the agricultural course.

Mooshegh Vaygouny (Minassian), another Armenian, was born in Erzeroum, Armenia. From the time that he was seven years old he has traveled about the Turkish empire with his father, who is steward to one of the governors and moves from place to place as the governor changes his place of residence. Vaygouny received a high school training at Bagdad and then spent a year at the Syria Protestant College in Beirut. At an early age he took a liking to farming and at Beirut expressed a desire to attend some school where he could study agriculture. Among the professors in the Syria College was one named William Hall, a Michigan man, who told Vaygouny of the Michigan Agricultural College and advised him to come here. A catalogue of the College was procured, and as a result, we have the young man with us. Asked how he liked it here, Vaygouny replied, "O, America is beautiful, more beautiful than France. I like it and I like the College, but, if you please, I like my own home better."

Intellect, Will, Conscience.

President Snyder in his Sunday morning talk drew a striking analogy between our national government and the human mind. In the government there are three departments, the legislative, executive and In good government it is important that these departments be equally strong and well administered. In the mind, too, we find three departments, the intellect, the will and the sensibilities. The intellect is the legislative power; it plans. The will is the executive power; and the sensibilities, or rather, one part of the sensibilities-conscience, decides the right and wrong of things. It is the court of last appeal. If we would amount to anything in the

world it is important that these faculties be equally strong and active. For the intellect we have devised courses of study, but training for the will and the conscience cannot be directed from without; it must come from within. Exercise is necessary for the strength of both. Every time we exert the will we strengthen it; every time we give way we weaken it. It is the same with the conscience. If we would keep it sensitive we must listen to it at all times; we must keep near to God we must let no good impulse go without exercise as soon as possible; we must constantly serve conscience, and it in turn will constantly keep us in the right way.

Natural History Society.

The first meeting of the Natural History Society will be held in the Zoological lecture room Wednesday evening, September 28, at 6:30 o'clock. An interesting program has been arranged, in which talks by Professor Barrows and Woodworth will be followed by general observations. At this meeting also a president will be elected to fill the vacancy caused by the enlistment of Brunson Barlow. This will be an interesting meeting; let everybody come. It costs you nothing.

From Puerto Rico.

An interesting letter from R. W. Swift with '99m appears in the Potterville Press of September 15. Mr. Swift is a member of the U. S. Signal Corps in Puerto Rico, and the letter was written before the peace protocol was signed. Speaking of the progress of the corps across the island, he mentions one little incident that will interest our readers.

"On my way from Ponce, was in the advance guard, and when we came to Sangerman there was an old man who stopped me and pointed to the Spanish hospital. Could make out from what he said that there were two American soldiers there. Did not know what was the matter with them-fever or small pox-and so did not wish to go near the place. But he would not let me go away, and the tears ran down his cheeks as I started to go on, and so made up my mind to go back and see them, and did. That was a sight never to be forgotten. They had the fever, and knew they could not live long. They were taken sick when their regiment passed through there a month before and had to be left. I was the only soldier they had seen since then. There was nobody to speak to them in English and could not make their wants known. They gave me their address and what valuables they had and I left them to die; and they knew it. I caught up with their regiment a few weeks later and gave up their things, and the next day the rest of my party, who were a day behind me, said there were two dead soldiers back on the road. Later I found it was the same ones I had seen. It seems quite hard to have such things happen, but it can't be helped.

"I hope I will be home soon, but it will be some time yet. Have any

amount of Spanish relics, among them a Spanish flag taken from the "Queen's Own" regiment from Spain. It has the Alfonso XIII mark on it. Well, will send this to the boat, but don't know when you will get it. You need not worry about me as it will do no good. Am well yet and don't look for any sickness."

Football Games.

Manager Flynn has arranged the following games of football;

October 8, M. A. C. at Ypsilanti. October 15, M. A. C. vs. Notre Dame, at South Bend, Indiana.

October 22, Albion at M. A. C. October 29, M. A. C. at Olivet. November 7, M. A. C. at Albion. November 14, Olivet at M. A. C. November 19, Ypsilanti at M. A. C.

One or two other games for the later season may be arranged. What is most desired now, however, is a practice game next Saturday. Our team is laboring under the great disadvantage of not having any other team near with which short practice games can be played.

Baseball Report for 1898.

Following is Manager George F. Richmond's statement of receipts and expenditures for the baseball team during the season of 1898:

RECEIPTS.

From former manager	į,		į.	\$35	DO
Donations from faculty		4		90	00
Donations from students			+	45	00
Appropriated by Athletic Ass'r	1.		i,	67	50
Received from Ann Arbor			14	18	50
From tickets sold		÷		30	35
					_

EXPENDITURES.

\$287 35

Balls, two dozen . Bats, ten . Street car tickets . Mask . Caps, one dozen . Mitts . Postage . Witch hazel . Gum . Coach—Gayle . Extra men to Kal Expense of coach texpense of coach Telephone to Hills	lai			*					* * * * *	7 11 2 96 2	50 50 00 00
Bats, ten Street car tickets Mask Caps, one dozen Mitts Postage Witch hazel Gum Coach—Gayle Extra men to Kal Expense of coach Expense of coach	lai			*					* * * * *	7 11 2 96 2	50 50 00 00
Caps, one dozen Mitts Postage Witch hazel Gum Coach—Gayle Extra men to Kal Expense of coach Expense of coach	lai									96	50 00 00
Caps, one dozen Mitts Postage Witch hazel Gum Coach—Gayle Extra men to Kal Expense of coach Expense of coach	lai									96	50 00 00
Caps, one dozen Mitts Postage Witch hazel Gum Coach—Gayle Extra men to Kal Expense of coach Expense of coach	lai			4 4 4 4						96	00
Mitts . Postage . Witch hazel . Gum . Coach—Gayle . Extra men to Kal Expense of coach t Expense of coach	lai						٠	٠	•	6	00
Postage	lai									2	00
Gum	lai	:	18					ď			
Coach—Gayle Extra men to Kal Expense of coach t Expense of coach	lai										75
Expense of coach t Expense of coach	aı			100			Ü			2	75
Expense of coach t Expense of coach	aı		1	2		2	0		10	64	80
Expense of coach t		na	zo	0.	tv	VO	0			6	50
Expense of coach	to	Hi	Ils	da	ile	5	1	ĵ.	Ċ		70
Telephone to Hills	to	0	liv	et		á	Ē		1	I	55
	sd	ale		7	0	ř	ò	ď			55
Ypsilanti, game				2	1			6	ó	24	65
Hillsdale, game				7		9		7	1	20	35
Albion, game		ď	ĸ		-	·	Ċ	Ĭ.		17	25
Olivet, game					•	•	•		•	18	30
Kalamazoo game			*					*	÷	20	60
Kalamazoo, game Ann Arbor, game						Ť.				29	20
Advertising				0						9	30
Advertising							*		٠	4	20
Sundries					*				•	1	00
									-	\$287	35

Learning How to Learn.

Sir James Paget spoke upon one occasion of the importance of "learn-ing to learn," and showed that knowledge, not immediately useful in itself, may be the means of developing the power of learning. The cultivation of the faculty of knowing is of incomparably greater importance than the mere acquisition; and to the student, this faculty so developed that when need arises knowledge may be quickly obtained, is a better provision for the business of life than is afforded by the largest and richest stores of information packed away in memory. Thus the brain property most worth caring about is the power of finding at pleasure and learning at will precisely what is needed.

THE M. A. C. RECORD.

PUBLISHED WEEKLY BY THE

MIGHIGAN AGRICULTURAL GOLLEGE.

EDITED BY THE FACULTY, ASSISTED BY THE STUDENTS.

SUBSCRIPTIONS SHOULD BE SENT TO THE SEC-RETARY, 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.

Y. M. C. A.—Regular meetings Sunday evenings at 6:00 and Thursday evenings at 6:30. F. N. Lowry, President, C. H. Parker, 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 Russel Taylor, President. Miss Emma Bach, Cor. Secretary.

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

NATURAL. HISTORY SOCIETY—Meets the last Wednesday of each month at 6:30 p. M., in the Zoological Lecture Room.

President.

A. J. Cook, Secretary.

BOTANICAL CLUB—Meets Monday evenings at 6:30 in the Botanical Laboratory. 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. F. E. West, President.
George Severance, Secretary.

George Severance, Secretary.

ECLECTIC SOCIETY—Meetings every Saturday evening at 7:00, Fourth Floor, Williams Hall, J. Bulkeley, President. F. L. Radford, Secretary, FERONIAN SOCIETY—Meetings every Friday afternoon at 1:00, West Ward, Wells Hall, S. Gertrude Lowe, President. Marion Clute, Secretary.

S. Gertrude Lowe, President. Marion Clute, Secretary.

HESPERIAN SOCIETY—Meetings every Saturday evening at 7:00, West Ward, Wells Hall. W. D. Hurd, President. C. H. Smith, Secretary.

OLYMPIC SOCIETY—Meetings every Saturday evening at 7:00, Fourth Floor, Williams Hall. F. R. Crane, President. W. R. Wright, Secretary.

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

THEMIAN SOCIETY.—Meetings every Satur-

Rrentel, Secretary.

THEMIAN SOCIETY.—Meetings every Saturday evening at 7:00, Chapel. Frances Russell, President. Coral Havens, Secretary.

UNION LITERARY SOCIETY—Meetings every Saturday evening at 7:00, U. L. S. Hall. John Severence, President. August Karkau, Sections. retary

TAU BETA PI FRATERNITY—Meetings on alternate Thursday evenings, Tower Room, Mechanical Laboratory, W. H. Flynn, President, P. S. Rose, Secretary, CLUB BOARDING ASSOCIATION—G. B, Wells, President, H. S. Putney, Secretary.

M. A. C. ATHLETIC ASSOCIATION-E, W., Ranney, President. R. M. Norton, Secretary.

Domestic Canning of Fruit.

Miss Amy B. Vaughn '97, after graduation, spent a year in the Bacteriological Laboratory at this College, investigating the causes of change in canned fruit. She collected samples of canned fruit that had commenced to spoil, inquired into the methods used in canning each sample, and then carried on experiments to ascertain the causes of fermentation or change. The results of her experiments are recorded in a thesis which she prepared for her master degree and which may be found in our library. A conviction that her deductions are worthy of a wider circulation than they will otherwise receive impels us to publish such portions of her thesis as will be most valuable to housekeepers.

She says:-"From experiments with changed canned goods of domestic preparation it would seem that this trouble was caused by ignorance and carelessness. If housekeepers could realize the fact that the air is filled with living floating matter, which coming in contact with the fruit causes fermentation, they would no doubt see the necessity of having everything hot to kill any living forms.

"Too many fail to see the importance of heating jars. It is not only to prevent their breaking but to kill any micro-organisms that may be

A METHOD OF CANNING,

which if carefully followed would prevent the loss of fauit.

"Look over your jars and see that the tops fit perfectly. Very often there is a dent in the lid, or some imperfection with the jar which prevents a perfect fit. Be sure that there are no cracks in the lid, either in the metal or porcelain part, for if there are they furnish passage for mould spores and other living forms. After thoroughly washing the cans and tops, lay the cans sidewise in a pan of cold water, also place in this pan the tops and whatever other utensils you are to use. Place this pan on the stove and let the water come to a boil. This is to kill any life that may be present,
"While this is boiling you can

prepare the fruit. Whatever receipt is used the general rules and method should be strictly followed. Have the best fruit possible, for then you will have fewer organisms to kill. Observe the utmost cleanliness in every part of the work. Clean your finger nails, wash the hands with soap and water, rinse them in water which has been boiled. Do not wipe them. This may seem a little thing, but it is important, for the cleaner the hands the fewer micro-organisms on them. The same with the utensils. Wash the outside of the fruit. After paring do not allow it to stand exposed to the air for any length of time, as the floating matter in the air is very likely to find a lodging place there. Exposure to the air also changes the color of the fruit. Cook only enough fruit to fill one or two jars at a time. In this way all can be thoroughly cooked. Bring the fruit to a boil; this will kill any living forms present.

"When you are ready to fill the jar draw the preserving kettle close to the pan of jars, empty the boiling water from the jars, and with the funnel taken from the boiling water pour in the fruit. Don't touch the inside of the funnel with the hands. It avails little even if you are particular about the jars but neglect to have all utensils thoroughly scalded. Now dip the rubber in the hot water, thus killing any life which may be on it, slip this over the jar, being sure that your hands are clean. Fill the jar to overflowing with boiling syrup. Run the handle of the spoon, which has been kept in the boiling water, around the inside of the jar to break any air bubbles which may be present. While the few germs in one or two bubbles of air would, in all probability, be killed in coming in contact with the hot syrup, yet it is best to take all precautions. After the rubber is on pick up the lid from the boiling water. It will have a few drops of water clinging to it, but don't wipe this off. The water will not hurt the fruit. If you use a cloth to wipe it off you will con-

taminate the lid. Never allow fruit

to stand a second in the jar without the cover. If you do life will fall on the fruit. Invert the jar on the table and let it stand over night. You will then be able to tell whether there is any leakage in the can. The next morning wipe off the outside of the can to remove any remains of the fruit. If any is left on, it serves as food for the growth of mould spores, and also for micro-organisms. As mould develops on the outside of the can its fine filaments will run in under the lid and penetrate down to

"Wrap the jar of fruit in paper so as to exclude the light, which will fade the fruit and perhaps cause some chemical change in it. It does not matter where the fruit is stored, if it has been put up properly; dampness will have no effect on it. A cool place is more desirable from the fact that if any living forms are present they will not grow so abundantly as when stored in a warm place."

New Students.

Students in Mechanical course designated by mafter name; in Agricultural course by a; in Women's course by w; special by sp.

course by w; special by sp.

Alsdorf, E. Louise, w. Lansing.
Ambler, Carl, m. Mt. Pleasant.
Armstrong, Winfred G., a. Berrien Center.
Arnold, John J., a. Kingsland.
Ayrs, Orla L., a. Elbridge.
Bailey, Claudius Le Roy, a. Salem.
Baker, James Fred, a. St. Croix Falls.
Beal, Frank J., m. Fenton.
Bell, William Charles, m. Grand Marais.
Bender, Will Otto, a. Jackson.
Bennett, Edmund R., a. Geneva.
Boone, Will James, a. Cambria.
Bornder, Mart, m. Burr Oak.
Boyd, Alexander R., a. Milwaukee.
Bradford, George Merritt, a. Bay City.
Brigham, Mabel F., w. Hadley.
Briley, Maud May, w. Hetherton.
Brownell, Shirley W., m. Chapel.
Buhler, Arthur Z., m. Mackinaw City.
Bullock, Dillman S., a. Hadley.
Burnett, Harry Albert, sp. Lansing,
Burtless, Charles, sp. Manchester.
Buno, Laverne L., a. Milford.
Bush, H. F., Jr., m. Fenton,
Butterfield, Kate Maritta, w. Bay City.
Buzzard, Matt, m. Fenton,
Calbert, Riley, a. Boyne. Buno, Laverne L, a. Milford.
Bush, H. F., Jr., m. Fenton.
Butterfield, Kate Maritta, w. Bay City.
Buzzard, Matt, m. Fenton.
Calbert, Riley, a. Boyne.
Carland, Custer, m. Frankfort.
Carman, Frances Louise, w. Marine City.
Carpenter, Frank G., m. Orion.
Carrier, Lyman, a. Duffield.
Case, Ralph Waldo, m. Mt. Pleasant.
Christopher, Chaunce W., a. Lansing.
Clark, Glenn M., m. Lansing.
Coda, Christopher F., m. Leland.
Collins, Marjie B, w. Howard City.
Cooley, Elizabeth, w. Lansing.
Coons, Harper John, a. Mt. Pleasant.
Cork, Robert L, m. Speaker.
Covell, Guy S, m. Whitehall.
Craig, Albert G., a. Harbor Springs.
Crosby, Matt A., a. Agricultural College.
Crosby, Mamie L., w. Agricultural College.
Crosby, Mamie L., w. Agricultural College.
Davis, Sybil Carpenter, sp. Lansing.
Decker, Arthur James, m. Utica.
Dey, Harry William, a. Springport.
Dean, Fred W., a. Shelbyville.
De Groat, Etta I., w. Lum.
Deyarmond, Edna, w. Lewiston.
Dietz, William Henry, m. Lansing.
Digby, Adelbert, C. a. South Lyons.
Driskel, Harry G., m. Jones, Mich.
Dunbar, Perry, sp. Owosso.
Dunford, John A., a. Long Rapids.
Elliott, Grace E, w. Troy.
Ely, Myrta Louise, w. St. Croix Falls, Wis.
Eplon, Anna, w. Henderson.
Farrand, Frances J., w. sp. Lansing.
Foster, M. B., m. Haslett.
Fox, Fred Charles, m. Gaylord.
Frink, Elmo M., a. St Johns.
Francisco, George D, m. Constantine.
Geib, Warren Jacob, a. Caledonia.
Gibson, Arthur M., a. Northville.
Goldthwaite, Finley S., m. Lansing.
Goodrich, Chloe A, sp. Lansing.
Goodorin, James Howard, m. Battle Creek.
Griffith, Ralph W. a. Otter Creek.
Green, Geo. W. Jr. a. Battle Creek.
Griffith, Ralph W. a. Otter Creek.
Griffith, Ralph W. a. Otter Creek.
Green, Geo. W. Jr. a. Battle Creek.
Griffith, Ralph W. a. Otter Creek.
Grove, Frederick F., a. Grand Ledge.
Gruber, John F., a. Shepherd.
Hall, Raymond A., m. Bay City.
Harrison, Edmund S., m. Paw Paw.
Harrison, Edmund S., m. Paw Paw.
Harrison, Ralph J., m. Agricultural College. lege.
Harrison, Geo. W., m. Lansing.
Hart, Homer V., m. Hudson.

Hatch, Sadie Mae. w. Hart.
Haywood, Miner, m. Detroit.
Henderson, Harry, a. Detroit.
Hickey, John Anslem, m. Michigamme.
Himebaugh, Roy L., m. Burr Oak.
Himebaugh, Ray C., m. Burr Oak.
Holland, Luther Blood, a. Saginaw,
Holloway, Kenneth, a. Holloway. Himebaugh, Ray C., m. Burr Oak.
Holland, Luther Blood, a. Saginaw,
Holloway, Kenneth, a. Holloway,
Hoyt, Herrman, a. Eaton Rapids.
Humphrey, Jennie A, w. sp. Lansing.
Janes, Chas. Nelson, m. Aurora, Ill.
Jarrard, Ereminah D., w. Lansing.
Jennings, M. Louzelle, w. Amy.
Johns, Elizabeth L., w. Wixom.
Johnston, Carl, m. Grand Rapids.
Jirou, Warren A, sp. a. Jackson.
Jones, Stanley L., a. Six Lakes.
Jones, Ole L., a. Six Lakes.
Jordan, Forest E., a. Woodland.
Kelly, LeGrands D., m, Longview, Texas.
Keeler, David Arthur, m. Grand Rapids.
Kimmel, Leonard, m Ypsilanti.
Kimball, Harry L., m. Union City.
Kneeland, Harold S., m. Traverse City.
Kocher, Arthur, a. Chestonia,
Koyle, Clarence Leslie, sp. m. Fremont.
Koon, Louis H., m. Forestville.
Krieger, William, a. Lansing.
Kiopp, John Albert, m. Good Harbor.
Krusen, R. Howard, a. Charlotte.
Ladd, Ira G, a. Springville.
Ladd, Geo. Royce, a. Brooklyn.
Landon, Lee, m. Agricultural College.
Lautenslager, Charles C., a. So. Rockwood.
Lewis, Mark, a. West Leroy.

Ladd, Geo. Royce, a. Brooklyn.
Landon, Lee, m. Agricultural College.
Lautenslager, Charles C., a. So. Rockwood.
Lewis, Mark, a. West Leroy.
Linkletter, Frank De. W. a. Benzonia.
Lovely, Grace. w. Howard.
Ludlow, Charles M., a. Springport.
Louden, Emma, w. Saginaw.
Mac Naughton, Henry D., a. Chapel.
McDermott, Joseph Lewis, a.
Buckner, Missouri.
Mann, Charles, a. Mt. Pleasant.
Marquart, Mollie, sp. Agricultural College.
Marsh, Stanley E., a. Baroda.
Merriett, Myles, M., m. Ionia.
Michael, Louis G., a. Hastings.
Miller, Henry C., a. Northville.
Mills, Harry L., m. Ionia.
Miller, Treodore L., m. Grand Rapids.
Miller, Raymond, m. Detroit.
Millspaugh, Clark Wilson, m. Gobleville.
Minassian, Mooshegh Vaygouny, a. Constantinople, Turkey.
Moore, Charles Ephraim, a. Battle Creek,
Moore, Myrtelle, w. sp. Merlebeach.
Montague, Francis Rollin, a. Buchanan.
Munro, Donald Andrew, m. Battle Creek.
Murphy, Fred M., m. Berrien Center.
Myers, Elmer A., m. Greenville.
Newell, Middred L., w. sp. Edwardsburg.
Norman, Arthur John, m. Lexington.
Nolan, Marguerite, w. Mio
Noyes, Albert Lee, m. Harrisville.
O'Dell, Vera, w. Jones, Mich.
Osborne, Randall, m. Buffalo, N. Y.
Owen, Floyd W., a. Stanton.
Palmer, Wilbur S., a. Kalkaska.
Parker, Sarah A., w. Grand Blanc,
Penfield, Effie, w. sp. Perrinton.
Pepple, Lula, w. St. Johns.
Peterson, Burt A., m. Jackson.
Peters, Arthur D., m. Springport.
Phelps, Samuel S., Jr., m. Grayling.
Phillips, Titus Glenn, a. Bay City.
Phillips, Titus Glenn, a. Collins.
Rockwood, Charles, a. Lansing,
Ronan, Bertha Maude, graduate. Middle-ville.
Ross, Wm J, a. Memphis.
Rudolph, Lynn D., a. Collins.
Scott, Frank D, m. Holland.
Searing, Emery De Forest, m. Pewamo.

Ross, Wm J, a. Memphis.
Rudolph, Lynn D., a. Collins.
Scott, Frank D, m. Holland.
Searing, Emery De Forest, m. Pewamo.
Searing, Norma, w. Pewamo.
Seeley, Fay M., m. Lansing.
Sevey, Glenn, a. Eureka.
Severance, Mabel, w. Walled Lake.
Shedd, Ward R., m. Tekonsha.
Sheldon, Louie S., a. Newburgh.
Simpkins, Curtis, m. Martin.
Skinner, Harry C., a. Dimondale.
Skinner, Oranel H., m. Maple Rapids.
Smith, Dennis W. m. Three Oaks.
Smith, Max, a. Eaton Rapids.
Snell, Maggie, w. Ionia.
Sly, Francis W., w. Lansing.
Sovereign, Otto, a. Bay City.
Spindlo, Thomas Henwood, a. Knowl Hill,
Berkshire, England. Berkshire, England.
Stevens, Marcus Brown, a. Big Rapids,
Storm, Margaret Helen, w. Benton Harbor.
Stroebel, George W., m. Barron, Wiscon-

Trebilcock, Albert, m. Ishpeming. Takvorian, Bedros H., a. Constantinople, Takvorian, Bedros H., a. Constantino Turkey.
Tibbitts, Jennie M., sp. Lansing.
Townsend, Grace Luella, w. Ionia.
Travis, Loa, w. St. Johns.
Ullenbruch, Viola, w. Port Huron.
Uhl, Wm. F., m. Sebewaing.
Van Loo, Gertrude L., w. Zeeland.
Vosper, Zaidee Belle, w. Ionia.
Waller, Milo S., sp. Grand Ledge.
Warren, Axie Elva, w. Lewiston.
Waterman, Clara, w. Alpine.
Watkins, Leo. L., a. Manchester.
Wemp, Ernest Edgar, m. Bennington.
Wermuth, Burt, a. Newark.
Whiteley, Harry H., m. Lansing.
Whitney, William A., a. Jamestown.
Whitney, Harry H., m. Lansing.
Whitney, Tilden, m. Mount Pleasant.

Wideman, W. Glen., m. Union Home. Wilson, William Bernard, a. North Branch. Wilson, Alice M., w. sp. Mason. Wilson, George C., a. Ann Arbor. Wolf, Clyde Marion, a. Frontier. Wonders, Wallace K., a. Detroit. Wright, W. DeMont, m. Harbor Springs. Young, H. Earl, a. Mason.

SUMMARY.

Students in Agricultural Course				81
Students in Mechanical Course				76
Students in Women's Course.				39
Special Students	00		+	17
Graduate Students	4	÷		1
Total	ŧ	+		214

Farm Notes.

The wheat sowing on field eight, part of field six south of the center drive, and field 14, was finished during the week. Among other experiments tried in the wheat fields there is a variety test of some eight different sorts. These varieties were sown in No. eight, in plots four drill widths wide. The field was sown on Friday, September 16, as far as the plots were concerned. A marked difference in the time that the wheat appeared above the ground was noted. In order of earliness of germination the varieties ranged as follows: Dawson's Golden Chaff (untreated), Red Clawson, Dawson's Golden Chaff (treated with formalin), Russian, Fultz, Jones, Square Head, Rudy, Gold Coin, and No. 6.

The filling of siloes was also completed during the week. The old square siloes near the Agricultural Laboratory now contain 158 tons, 764 lbs., of silage. The new silo at the grade dairy barn holds 150 tons, 1525 lbs. The silage was well tramped continuously as the filling proceeded, and the silage therefore does not settle as much as usual after the filling is completed. The corn was cut by a Deering Corn Harvester, without a break or an accident during the season. It required 114 pounds of twine to bind the 309 tons of silage, or .37 of a pound per ton. The corn was hauled from fields 11, 13 and 6.

An interesting experiment in determining the distance between rows and hills most desirable in planting corn was performed in No. 11. This experiment is a continuation of a series performed during the last three years. Plot 1, was planted with a grain drill, every tube sowing; Plot 2, with the same grain drill, each alternate tube sowing. In Plot 3, the rows were 28 inches apart as against 14 inches in Plot 2, and 7 inches in Plot 1. In Plot 4, the rows were 42 inches apart. In Plot 5, the corn was planted in hills three feet and nine inches apart each way. In Plot 6, the rows were three feet and nine inches apart but the hills in the rows were but a foot and ten inches apart. The yields of the plots were as follows; but the significance of the weights cannot be fully appreciated until the chemist makes his report as to the amount of water found in each of the different plots:

Plot 1, 7,750 lbs. Plot 2, 8,790 lbs. Plot 3, 9,710 lbs. Plot 4, 8,120 lbs. Plot 5, 7,670 lbs. Plot 6, 9,080 lbs.

The fertilizer experiment on muck on field 13 shows a visible difference in growth of the vegetation in favor of the areas to which complete fertilizers were applied.

The winter vetch is again this year showing up well and promises to be a valuable addition to our list of plants for green manuring.

At the College.

Prof. Blunt has moved her office desk into the northeast alcove of the library.

Dr. Edwards' family will not return from Virginia for several months, possibly not this year.

Prof. and Mrs. Smith will leave Thursday to spend a week or ten days at the Omaha Exposition.

Irving Gingrich 'or is endeavor-ing to organize a College quartette. He wants a good second tenor.

The reading room is much improved since the walls have been decorated and the floor covered with new linoleum.

Prof. Towar and Mr. True are attending the State Fair in Grand Rapids, and Profs. Smith and Taft go there today,

The botanical, farm, and horticultural departments of the College and the South Haven sub-station have exhibits at the State Fair in Grand Rapids.

The King's Daughters will meet with Mrs. Vedder at 3 o'clock Wednesday afternoon, September 28. Lesson, the thirteenth chapter of Luke. Text, "Saved." Leader, Mrs. Vedder.

The fire department was called out Thursday morning by a gasoline stove fire at Mr. Westcott's. The department made remarkably quick time in getting to the place, but Mrs. Stringham had smothered the flames with a rug before their arrival.

Mr. C. E. Walter has our thanks for a beautiful transparency representing the portion of the campus seen by looking from Prof. Taft's residence toward the willows by the little bridge. The view was given to Mrs. Landon to hang in the reading room.

The College population was represented by nearly 400 of its members at the get-acquainted reception in the Armory last Friday evening. For an hour and a half the faculty stood at the west end of the parade room and shook hands with the line of passing students while the latter, when not thus engaged, were getting acquainted with each other. Then followed refreshments, music, and dancing, which occupied the time until eleven o'clock.

Something About Butter.

A distinguished physician who lived about the time of Christ mentions that butter was made by agitating the milk of sheep; but none makes mention of its being used except as an ointment or medicine save by the Thracians and Germans, who were the first nations to adopt it as food. It is related by Plutarch that while a Spartan lady was visiting the wife of a distinguished nobleman of the adjacent principality, the former smelt so strongly of sweet ointment and the latter of butter that mutual repulsion was the consequence, which finally ended in war.

"An appropriate musical instrument for a fisherman would surely be a castanet," remarks the Harvard Lampoon. "Probably a tramp with any idea of consistency will play the obæ, adds the Yale Record. It is suggested that a druggist ought to do well on the vial and that some of our sophomore cadets have aspirations to play the lute.

The M. A. C. Special Hat

Is now on sale; much nicer hat than last season; better material and workmanshipthe price remains the same, Fifty Cents.

If you want up-to-date neckwear I would have great pleasure in showing you the most complete line of natty ties in Lansing.

Sweaters, Golf Hose, Caps, Hats and Shirts are lines in which I lead.

Students' patronage respectfully solicited.

Elgin Mifflin,

The Outfitter.

Simons Dry Goods

104 Washington Ave. S.

Lansing, Mich.

3 Floors -- Elevators.

The place where students of M. A. C. are cordially invited to call and see our extra values in

CARPETS, MATTINGS, CURTAINS, RUGS, WINDOW SHADES, HOUSE FURNISHINGS, POLES, ETC.

Special attention given to the furnishing of rooms.

New Fall Styles for 1898. Our representative will call on you. Simons Dry Goods Go.

R. B. Shank & Co.,

Leading Grocers and Confectioners.

Be Sure and See Us

need anything in the FURNITURE LINE.

We Can Save You Money.

Cowles Bros.

319 Washington Avenue South.

Goods Delivered Free at College.



Gollege Men

Always appreciate stylish foot- & wear-and durable.

The style here shown is not only ? up to date-in fact one of the very } latest-but they are strong, solid, ser-}

PRICE only \$3.50 for all kinds,

Winter Russet, Box Calf, Patent Leather-Black or Colors.

Shoes Repaired and Rubbers Mended in best manner.

C. D. WOODBURY 103 Washington Ave. S.

News from Graduates and Students.

John E. Mayes with '99 called at the College Sunday.

Alex. F. Gordon '91 has entered the dental department of the U. of M.

Mr. and Mrs. Dwight T. Randall with '96 and '97 are living at 34 N. Paulina street, Chicago.

Miss Mildred Newell '02 is a sister of our engineer, L. F. Newell and of V. V. Newell '94m.

E. L. Trumley 'oi, Co. E., 31st Regiment, is reported as improving satisfactorily at Grace Hospital in

James Briley '96 is principal of schools at Hillman, Mich. His sister, Miss Maud M. Briley, has just entered college here.

Clay Tallman '95 has entered the law school of the University of Colorado. His address is 449 Mountain avenue, Boulder, Colorado.

B. A. Holden '91 has gone into the insurance business with his brother, E. A. Holden '89, in Lansing, and will live on Capitol avenue.

Thirty-one M. A. C. men-graduates and former students-were in attendance at the State republican convention in Detroit last week, and all but two or three were there as delegates.

H. S. Hampton '76 is professor of sciences and civics in the state normal school at Albion, Idaho. He is also studying for a master degree in political economy.

Waldo M. Ball with '99 spent Friday night and a part of Saturday at the College. He is a member of Co. G., 35th Regiment, and was on his way to Grand Rapids to enjoy a 30-day furlough at home.

C. J. Foreman '94, John W. Rig-terink '97, D. J. Hale '98 and G. F. Richmond '98-all on their way to Ann Arbor-spent Saturday and Sunday with friends at the College. Mr. Foreman goes to the University to study for the degree Ph. D.; Mr. Rigterink, for his second year in the medical department; Mr. Hale, for a course in medicine, and Mr. Richmond for his Master of Science degree.

Colleges and Exchanges.

The Pennsylvania grand stands have an estimated seating capacity of nearly 20,000.

The estate of Columbia University has increased \$5,870,000 during President Seth Low's administra-

Johns Hopkins university never possessed a college paper until last year, when the publication of a fortnightly known as The News Letter was begun.

President Seth Low, of Columbia University, says "All men are agreed that education is a thing to be encouraged, a thing to be desired, a thing to be struggled for, a thing to profit by."

Two educational institutions have received endowments exceeding one million dollars from single individuals-Girard College, \$8,000,000, from Stephen Girard, and Chicago University, \$7,000,000, from John D. Rockefeller.

The Poet Gray.

Gray was, in every sense, real and poetical, a cold, fastidious old bachelor, at once proud, sensitive, and selfish. In his letters, memoirs and poems no indication can be found that he was ever under the influence of woman. He might well moralize on his bachelorship and call himself a "solitary fly."

TEXT BOOKS.

Drawing Tools and Draughtsman's Supplies.

CROTTY BROS.—CITY BOOK STORE

206 Washington Ave. N., Lansing, Mich.

Alsdorf & Son...

THE DRUGGISTS.

Everything First Class, Fresh and Up to Date.

Lawrence & VanBuren PRINTING CO.,

Ottawa St. E.

Lansing, Mich.

CHAS. A. PIELLA,

DIAMONDS, WATCHES, JEWELRY, Clocks, Silverware, Art Goods.

121 Washington Ave. N., LANSING, MICH.

HERRICK BROTHERS

Fine GROGERIES and MEATS

Everything guaranteed first-class.

219 N. Washington Ave. Opera House Block

Electrical Supplies.... and Bicycle Sundries.

Complete Stock at Lowest Prices.

GAPITAL ELEGTRIC ENG. GO.

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.

BOTH PHONES. Careful attention given to

GOTTLIEB REUTTER.

Washington Ave. South.

Employes of

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.

... At the ...

DAVIS CLOTHING STORE

104 WASHINGTON AVENUE NORTH,

You can buy Sweaters, Supporters, Foot Ball Pants, Foot Ball Jackets, Gymnasium Suits, and the finest line of Tailor Made Clothing in the City.

Come in and see us any way.

Furniture Headquarters.

\$1.25, \$1.50, \$2.00 and \$2.50 Cots at -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.

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 the who patronize us.

ARCHITECTS.

MEAD & WHITE—Architects, Lansing, Mich., 115 Washington Ave. N., and Harbor Springs, Mich., Clark Block.

BARBERS.

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

BOOKS AND STATIONERY.

ANSING BOOK AND PAPER COMPANY. Books, Stationery, Wall Paper, Engravings and Frames. 120 Washington Ave. N.

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

BICYCLES AND MUSIC.

PIANOS, Organs, Sheet Music, Guitars, Banjos, Violins, etc. Bicycles, new or second hand, for sale or rent. Repair shop complete. Bicycles and Organs to rent. Holmes Music and Cycle Co.

F J. COLE, 411 Michigan Ave. E., expert in re-pairing bicycles. Dealer in bicycles and sporting goods.

GEO, H. RICHMOND. Pierce Cycles. line of sundries. Repairing and renti reasonable rates. 200 N. Washington Ave.

CLOTHING.

UIS 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. LARNED.-China, Glass and Lamps. 105 Washington Ave. S.

DENTISTS.

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

Postal Telegraph Co., Michigan and Washing-

DRUGGISTS.

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.

M J. & B. M. BUCK.-Furniture. Cor. Washington Ayenue and Ionia Stree See ad.

GROCERS.

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

HARDWARE, STOVES AND TINWARE.

JACOB STAHL & SON.—Wholesale and Re-tail Hardware and House Furnishings, 211 and 213 Washington Avenue North,

NORTON'S HARDWARE—General Hardware, Stoves, Tinware, Graniteware, Cutlery, etc. 111 Washington Ave. South.

HOTELS.

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

INSURANCE.

THE DYER-JENISON-BARRY CO., LTD., (Incorporated) 108 Michigan Ave. West. All kinds of the best insurance. Strongest agency in the city, All life insurance policies may "look alike to you," but you will be convinced of the marked difference by asking us for a sample contract of the Old Mutual Benefit Life.

JEWELERS.

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

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.

LAUNDRIES.

THE VAN GORDER PALACE LAUNDRY. C. H. Hilton, Agt., Wells Hall, Room 97. 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 HERMANN. Fine Tailoring. 218 Washington Avenue N.

MRS. L. S. HUDSON, Hudson Block, where you can find the best styles in simple as well as elaborate Hats at lowest prices. 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. OCULISTS.

JOSEPH FOSTER, M. D.—Eye, Ear, Nose and Throat. Hours 9 to 12 A. M., 2 to 4 P. M. Sun-days, 12 to 1. City National Bank Building, Lan-PHOTOGRAPHERS.

SPECIAL PRICES to M. A. C. Students: Hatton, Photographer, over State Savings Bank.

RESTAURANTS.

CILBERT M. HASTY.—Proprietor Hasty's Gem Lunch. Best meals and lunches in the city. 113 Washington Avenue S,