

The M. A. C. RECORD.

MICHIGAN STATE AGRICULTURAL COLLEGE.

VOL. 7.

LANSING, MICHIGAN, TUESDAY, JUNE 10, 1902.

No. 37

M. I. A. A. MEET OURS.

M. A. C. WON AT ALBION BY A SAFE MARGIN.

A RECORD-BREAKING CONTEST.

A large crowd of enthusiastic rooters went to Albion, Friday, on the special Lake Shore train and saw M. A. C. win once more the annual M. I. A. A. track meet. The meet was probably the most closely contested and most enthusiastic held for years. The tennis matches were played Thursday and Friday and resulted as follows:

Men's Singles, Chase, Hillsdale, won from Horton, M. A. C., 9-7, 5-7, 6-2. White, Albion, won from Hewitt Kalamazoo 6-0, 6-1, Chase Hillsdale, won from Gray, Olivet 6-0, 6-1, Finals, Chase Hillsdale won from White, Albion 6-2, 6-3, giving Hillsdale first and Albion second.

Men's doubles, White and Hunt Albion won from Hewitt and Day, Kalamazoo 6-0, 6-0, M. A. C. won from Olivet default. Chase and Bailey Hillsdale won from White and Hunt Albion, 6-9, 2-6, 7-5; Finals Chase and Bailey, Hillsdale won from Horton and Willett, M. A. C., 6-3, 1-6, 6-3, Hillsdale first, M. A. C. second.

Ladies' Singles, were entered by Hillsdale, Kalamazoo and Albion, Albion winning both matches in love sets.

Ladies' Doubles were entered by Hillsdale and Albion, Albion won easily, Total points Hillsdale, 16, Albion 13, M. A. C. 3.

In these matches the winner has first place and the winner up second. The men defeated by the winner previous to the final match have no chance for second which was our case in singles.

Little interest was shown in the ladies' tennis all knew before the tournament that Miss Perine of Albion would have everything her own way. Neither Olivet nor M. A. C. sent any ladies. If we had sent a team, we would have taken a second without winning a match.

FRIDAY'S EVENTS.

Five-mile bicycle—Rae, M. A. C., first; Bentley, Olivet, second; Mason, M. A. C., third; time, 14:51.

100-yard dash—Depew, Hillsdale, first; Kastner, M. A. C., second; Morgan, Olivet, third; time, 10 2-5 seconds.

Hammer throw—Maddock, Albion, first; Childs, M. A. C., second; McKenna, M. A. C., third; distance, 123 feet 7 inches.

Mile run—Ward, Hillsdale, first; Holdsworth, M. A. C., second; Schoch, Kalamazoo, third; time, 4:48.

Standing broad jump—Carpenter, M. A. C., first; Church, Albion, second; Whitmire, Ypsilanti, third; distance, 10 feet 4 inches.

Shot-put—Maddock, Albion, first; Carpenter, M. A. C., second; Fuller, Alma, third; distance, 36 feet 10 inches.

440-yard run—Depew, Hillsdale, first; Kastner, M. A. C., second; Koster, Kalamazoo, third; time, 52 4-5 seconds.

120-yard hurdle—Church, Albion, first; Dunford, M. A. C., second; time, 16 4-5 seconds.

Discus throw—Maddock, Albion, first; Priest, Albion, second; Steckle, Olivet, third; distance, 109 feet 7 inches.

Half-mile run—Holdsworth, M. A. C., first; Schoch, Kalamazoo, second; Schenck, Alma, third; time, 2:06.

Running high jump—Bell, Hillsdale, first; Hunt, Albion, second; height, 5 feet 6 inches.

220 yard run—Depew, Hillsdale, first; Morgan, Olivet, second; Kastner, M. A. C., third; time, 23 3-5 seconds.

Running broad jump—Depew, Hillsdale, first; Moon, M. A. C., second; Childs, M. A. C., third; distance, 20 feet 4 inches.

In the evening, on account of rain, the indoor sports were held at the opera house: Featherweight wrestling—Bryant, M. A. C., first; Lescoher, Albion, second. Lightweight—Sansburn, M. A. C., first; Phillips, Alma, second. Welterweight—Geib, M. A. C. first; Wilder, Albion, second. Middleweight—Brunger, M. A. C., first; Steckle, Olivet, second. Heavyweight—Maddock, Albion, first; Bird, M. A. C., second. Indian Club swinging—Phillips, Alma, first; Pinch, Olivet, second.

SATURDAY'S EVENTS.

Horizontal bar—First, A. O. Abbott, M. A. C.; second, Glass, Alma; third, R. C. Brown, M. A. C.

Quarter-mile bicycle—First, Bentley, Olivet; second, Bartell, Albion; third, Morse, Kalamazoo; time, 39:1-5.

Mile bicycle—First, Bartell, Albion; second, Howard, Alma; third, Rae, M. A. C.; time, 3:06.

Pole vault—First, Ward, Hillsdale; second, Millar, M. A. C.; third, Blanchard, M. A. C.; height, 10 feet 1-4 inch.

Two-mile run—First, Ward, Hillsdale; second, Dugan, Albion; third, Phillips, M. A. C.; time, 10:53.

220-yards, hurdles—First Church, Albion; second, Depew, Hillsdale; third, McKenna, M. A. C. Time, 27:2-5.

Mile relay race—First, Phillips, Holdsworth, Kastner and Crosby, M. A. C.; second, Koster, Vandy, Schoch, and Polley, Kalamazoo. Time, 3:42 2-5.

Running hop, step and jump—First, Depew, Hillsdale; second, Fuller, Alma; third, Moon, M. A. C. Distance, 43 ft. 9 1-2 in.

Summary of points: M. A. C., 85; Albion, 69; Hillsdale, 65; Olivet, 19; Alma, 19; Kalamazoo, 6; Ypsilanti, 1.

NOTES ON THE MEET.

The relay was the prettiest event of the whole meet, all of M. A. C.'s runners holding their opponents even on every quarter.

Kastner was the only man whom Depew, according to his own statement, feared to compete with.

Rae, in the one mile bicycle, was fouled by another rider, but managed to win third.

In the last lap of the relay the bleachers gave way, breaking the leg of a spectator.

The records broken were the 120-yd. hurdle, shot put, hammer throw, standing broad jump, pole vault, one-mile run.

Blanchard and Millar both vaulted near the 10-foot mark.

Albion won the base ball championship, defeating Hillsdale 5 to 4, and Kalamazoo 8 to 1.



START OF TWO-MILE (DUAL MEET WITH ALBION).

NOTICES.

Will chorus members who have copies of "Pinafore" kindly return them at once to Mrs. Marshall or Mr. Geib.

Officers will be elected at the next meeting of the Debating Club if there are members enough present to hold the offices.

F. N. SMITH.



THE ALMA GAME. MILLAR AT BAT.

Applications for rooms are coming in much more rapidly than they have in previous years. Nearly all the rooms in the dormitories are already taken.

The Commencement Address will be given this year by President William O. Thompson LL. D. of the Ohio State University, Columbus, Ohio.

ALUMNI.

'73. Charles S. Crandall, late professor of Botany and Horticulture in Colorado College, visited the College last week. His home is 454 S. Desplains St. Chicago.

'76. Don H. Kedzie, besides attending to the duties of postmaster at Lordsburg, New Mexico, is editor and publisher of the *Lordsburg Liberal*, a paper devoted largely to the mining interests of the community which it represents. Mr. Kedzie is unmarried and his experience boarding at Chinese restaurants has taught him to highly favor the course in domestic science offered by the College.

'78. Prof. W. S. Holdsworth expects to make a display of water colors at the Detroit exhibition next fall.

'78. F. W. Hastings writes pleasantly from St. Louis, Mich. He has a good business as civil engineer, and incidentally collects specimens of Mound Builders pottery.

'78-'81. Dr. Henry Palmer, of St. Johns, Mich., was on the campus last week.

Ex-'80. A. L. Whipple plans to attend the commencement exercises at M. A. C.

'82. L. H. Bailey is meeting with great success with his publication, "Country Life in America." From all parts of the continent have come appreciative notices, the illustration in particular affording matter for favorable comment.

Ex '83, ex '95. William and D. G. Smith are extensive stock feeders living at Portland. Most of their stock is brought from Chicago, but the feed is raised on the farm.

'84 John I. Breck of Jackson, visited Sec'y Bird last week.

'87. C. B. Waldron is located at Ionia, Mich. A. R. and C. P. Locke practice law in Ionia County as does also Dwight Sheldon 89-90.

'87-'88. William Austin Cannon visited M. A. C. during the past week. Mr. Cannon gets his Ph. D. from Columbia University this year, having been there two years. He is connected with the Bureau of Plant Industry, Department of Agriculture, Washington, D. C. He will work during a part of the summer collecting plants for the botanic garden and herbarium of Columbia University.

'89. Ray Stannard Baker started last week for Vancouver, Washington. He will write articles concerning the northwestern portion of the United States for the Century Co.

'89. P. G. Holden, general manager of the Funk Brothers' Seed Co., Bloomington, Illinois, writes Dr. Beal of some interesting work which he is carrying on. He is engaged in making experiments in corn breeding. "We have just finished planting our 7,000 acres of

(Continued on page two)

THE M. A. C. RECORD

PUBLISHED EVERY TUESDAY DURING THE COLLEGE YEAR BY THE MICHIGAN STATE AGRICULTURAL COLLEGE

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TUESDAY, JUNE 10, 1902.

THE winning of the M. I. A. A. meet closes the athletic contests of M. A. C. for the year 1901-2. The teams on the whole have been successful, and we can but wish for another series of victories next year. The withdrawal of M. A. C. from the M. I. A. A. means more work, more support for the teams in order to win.

IT is now quite generally conceded by the best educated scholars that no education can be called either liberal or complete that does not provide for the training of the moral and spiritual nature of the man or woman. Viewed in this light no educational institution or college can fulfill its mission of training its students in the broader sense of the term, that does not offer ample opportunity for the development of christian character. The opportunities for moral and spiritual training at M. A. C. are very large. There are two christian associations, one, the Y. M. C. A., for young men, the other, the Y. W. C. A., for young women; both are run and officered by students and though quite separate, yet the associations have a Thursday evening union meeting every four weeks and a union Sunday evening meeting every week. Each association holds a regular meeting every Thursday evening with the exception of every fourth week, as before noted. Students lead the Thursday evening meetings and some of the Sunday evening meetings, but the greater number of Sunday meetings are conducted by members of the faculty. Looking back over the past year's work, now practically finished, it is gratifying to note a decided growth in size and efficiency of the associations, yet greater efforts than ever before are being made to make next year's association work a more brilliant success in every way. This will acquire greater consecration and fidelity on the part of the members, both old and new, including members of the faculty as well, and now as we leave for our summer vaca-

tion, let us carry our christian characters with us where we go, and when we return bring fresh zeal for the association work.

ALUMNI.

(Continued from page one.)

corn he says and are now very busy with the first cultivation of the first planting. The corn is all looking very fine and we have a perfect stand. You will readily appreciate how busy we have been when I tell you that we have registered 3,000 ears of corn for our state pedigree register. These ears have all been planted either in special blocks or separate rows and in many cases particularly fine ears have been mated, as we call it. The registry consists in keeping a correct record of the length, circumference of ear at butt and tip; space between rows; number of kernels; quality of butt and tip; weight of ears and weight of cob; length and width of kernels; the roughness or smoothness of the ear; per cent. of protein, oil, starch, and ash and any other peculiarities or qualities which may go under the head of remarks. We are now busy taking notes of these seed blocks and it is very remarkable how greatly they vary in vigor of germination. We are breeding not only for increased yield but for an increase of protein and oil, and in one variety, for high starch." The same work is going on in Iowa and other states.

'90 R. B. McPherson is a capitalist and owner of telephone lines Howell, Mich. W. W. Morrison also of '90 has been superintending the construction of telephone lines for Mr. McPherson. His address is Bryan, Ohio.

'90-'91. S. P. Orth has in the June *Forum* a very instructive article entitled "The Municipal Situation in Ohio." Owing to the provisions of the present State constitution enacted in 1850 the larger cities are hampered in the matter of self-government, certain privileges of legislation being under the control of the State Legislature and—as Mr. Orth shows—under the control of political tricksters.

'91. Alex Gordon is a dentist at Hart, Mich.

'91. Prof. W. O. Hedrick expects to attend the School of Economics at Chicago University through the summer vacation.

'92m. George A. Hawley is a flourishing nursery man near Hart, Mich.

'93 H. F. Palmer is still in the Biological department of the Park-Davis Co., Detroit, Mich.

'93. D. J. Crosby of the U. S. Department of Agriculture is engaged at present in an investigation of the subject of school gardens in city and country. On May 3d, he gave an address on "School Gardens." Their development and Function at the conference of the Eastern Educational Association in Baltimore. More recently he has made a trip through Connecticut, Massachusetts, and New York to collect photographs and other data on the subject. On August 5th, 6th, 7th, he will address the general session of the American Park and Outdoor Art Association, Boston on the development of the School Garden movement and will have charge of one of the section meetings of that association.



WRESTLERS, 1902

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|----------|----------|----------|--------|---------------|
| ROLDOLPH | GEIB | BALBACH | BIBB | KATON (M'G'R) |
| BRUNGER | | MCDERMID | | PETERS |
| | SANSBURN | O'DELL | BYRANT | |

With '93. R. M. Kedzie is head bookkeeper for the Eagle Drug and Mercantile Company of Lordsburg, His family, consisting of his wife and one little girl, are at present in Michigan.

'94-'96sp. H. A. Sprague is one of the owners of the Corunna (Mich.) Lighting Plant.

'97m. The marriage of Miss Frances Alice Henry and Mr. Earl H. Sedgwick, '97m, at Elizabeth, N. J., on June 3d, has been announced.

'98. T. L. Hankinson, besides his work as instructor in zoology in Cornell University is studying for the degree of Ph. D.

'97m. W. R. Goodwin writes that he has not changed his home from Peoria, Ill., to Union Pier, Mich. To facilitate mail delivery, however, he has his papers directed to Union Pier, Mich. "At present," he says, "I am part of the engineering department of the C. & N. W. Ry. on the construction of a new line 48 miles long, connecting Evan and Marshall in southwest Minnesota. This is the third line, the construction of which I have taken part in. I am here in the capacity of general foreman of water supply. My particular work is the looking after and putting in of all those things connected with the water supply, i. e., wells, pumps, windmills, steam and gasoline pump-

ing engines, supply tanks, piping, steam heating plants, etc. Many other things in the mechanical line are turned over to me, however; and I am just preparing to build an engine house at Marshall."

'99. S. Fred Edwards, in addition to his work as instructor in bacteriology is studying for his M. S. degree.

'99 m sp. Albert Strong is now located in Kenosha, Wis.

'99. Macy W. Lapham has written to his M. A. C. friends from Rocky Ford, Colo., that he does not expect be through with his field work till December.

'99. Roscoe Kedzie and wife came home from Oberlin last week.

'01. Vesta Woodbury writes that she enjoys her work at Glenwood, Ia., and is enthusiastic in her praises of old M. A. C.

'01 Gorden Tower has gone to Montana to take up his duties with the Forestry Department.

'01. Instructor Humphrey returned last week from a two weeks' stay at Willis. He was testing the cows in two herds of Holstein-Friesians for advanced registry in the Holstein-Friesian Breeders Association.

With '03. Mrs. May Kyes Allen is now a resident of Lordsburg, N. M.

Your Attention Ladies!



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THE RELATION OF INSECTS TO THE POLLINATION OF PEARS AND APPLES.

Thesis by A. G. Craig and D. S. Bullock. The work being done in the spring of 1901 and 1902. Following are a few extracts:

It has long been known that many varieties of pears and apples are self sterile while many other varieties do much better when cross fertilized.

The pollen of pears and apples is sticky and heavy; therefore wind can accomplish very little if anything in cross-pollination. The great work of pollination, then, falls to the insects and it was with these facts in mind that this work was taken up.

In carrying on this thesis the following divisions of the work have been considered and kept in mind throughout.

1. Number and names of insects found on pear and apple trees during the period of blooming.

2. Do the same insects work on the two fruits?

3. What proportion of the insects visit the flowers systematically.

4. The effect of weather upon the different insects with reference to their work, etc.

Insects were collected during the whole period that pears and apples were in bloom and were carefully pinned and labeled.

In 1901 of the insect collected on pears 14 per cent. belong to the Hemiptera, 29 per cent. to the Diptera, 17 per cent. to the Coleoptera and 40 per cent. to the Hymenoptera. In 1902, 2.6 per cent. belong to the Hemiptera, 30 per cent. to the Diptera, 14 per cent. to the Coleoptera and 53.4 per cent. to the Hymenoptera.

In 1901 of the insects collected on apples, 4 per cent. belong to the Hemiptera, 27 per cent. to the Diptera, 8 per cent. to the Coleoptera and 61 per cent. to the Hymenoptera. In 1902 1.7 per cent. belong to the Hemiptera, 17.1 per cent. to the Diptera, 4 per cent. to the Coleoptera and 76.9 per cent. to the Hymenoptera.

CONCLUSIONS.

The Hymenoptera are the most important insects in effecting cross-pollination of pears and apples.

The Hemiptera, Diptera and Coleoptera are found quite commonly on the two fruits but their work is insignificant compared with that done by the Hymenoptera.

The Apidae and Andrenidae are the only two families of Hymenoptera that visit flowers and carry pollen systematically and hence, the only ones of practical importance in this work.

In general about the same insects work on the two fruits.

The Apidae work more freely on apples than on pears.

The Diptera are found more abundantly on pears than on apples. Insects are very sensitive to changes of temperature and rain.

OBSERVATIONS.

Andrenidae were more abundant in proportion to the Apidae in 1901 than in 1902.

Andrenidae were more abundant than Apidae on the pears both years.

Bombus were much more abundant in 1902 than in 1901.

We believe the Andrenidae are much more abundant than is commonly supposed.

From the number of insects observed we would say that, in this locality, there are enough insects to pollinate a sufficient number of the flowers to insure a crop.

STUDENT JUDGING CONTEST.

Senior agricultural students specializing in animal husbandry, competed this week for the money prizes offered by Mr. W. A. Roland, of Grass Lake, Mich., and New York City. The competition



Rae Horton Dunford Kastner Caine Burrell Phillips Bell Willett Eaton
G. Verran Kratz Crosby R. Verran Childs
Moon Wilson Baldwin Blanchard Stevens Rudolph Holdsworth McKenna Denman

covered five leading classes of live stock, viz., horses, beef cattle, dairy cattle, sheep and swine. The sheep, together with the beef and dairy cattle used, were selected from the College flocks and herds. The swine were furnished by Mr. W. O. Wilson, Okemos, Mich., while the draft horses used in the work were graciously placed at our disposal by the management of the Ringling Bros. circus. The keenest interest was manifested throughout the contest by the students engaged therein. These contests furnish a splendid incentive for earnest work. The result of the competi-

DATE OF ARRIVAL OF BIRDS AT M. A. C., SPRING MIGRATION, 1902.

American crow, February 26; American robin, March 3; Bluebird, March 8; Song sparrow, March 10; Cowbird, March 10; Crow blackbird, March 10; Red-tailed hawk, March 11; Tawhee, March 11; Prairie horned lark, March 11; Meadow lark, March 11; Killdeer, March 12; Mourning dove, March 15; Red-winged blackbird, March 16; Phoebe, March 23; Vesper

sparrow, April 6; Chipping sparrow, April 15; Kingfisher, April 15; Yellow-bellied sapsucker, April 17; Purple martin, April 19; Mud swallow, April 19; Barn swallow, April 19; Chimney swift, April 20; Great crested fly catcher, April 22; Wood pewee, April 26; Yellow warbler, April 26; Scarlet tanager, April 26; American redstart, April 26; Yellow throated vireo, April 26; Blue-gray gnatcatcher, April 26; Catbird, April 27; Least fly-catcher, April 28; Redheaded woodpecker, April 28; Kingbird, April 28; Bobolink, May 2; Baltimore oriole, May 2; Rose-breasted gros-



Smith J. Frazer Denman Dales Rasmussen Case B. Frazer Anderson
Wilcox Gunnison Millar Tower Haftenkamp Henderson

tion in the various classes was as follows:

Draft horses.—1st, L. F. Bird; 2d, Lyman Carrier; 3d, W. J. Geib.

Beef cattle.—1st, L. F. Bird; 2d, Lyman Carrier; 3d, M. B. Stevens.

Dairy cattle.—1st, M. B. Stevens; 2d, W. J. Geib; 3d, Lyman Carrier.

Sheep.—1st, M. B. Stevens; 2d, W. J. Geib; 3d, Lyman Carrier.

Swine.—1st, Lyman Carrier; 2d, W. J. Geib; 3d, M. B. Stevens.

J. J. FERGUSON.

beak, May 3; Humming bird, May 7; Indigo bird, May 7; Cuckoo, May 11. D. S. B.

CLASS GAMES.

The following is the record of the class games:

Sophomores vs. freshmen, 8 to 3; freshmen vs. juniors, 4 to 6; seniors vs. preps., 4 to 12; sophomores vs. juniors, 14 to 8; seniors vs. sophomores, 14 to 8; seniors vs. juniors, 7 to 17.

The preps., forfeited to juniors by not appearing on the field to play them. This leaves the sophomores and juniors tied for first place, each team having won two and lost one game. The championship game will be played off Saturday afternoon.

COMMENCEMENT PROGRAMME.

Sunday, June 15. Baccalaureate sermon at 3 p. m. in Armory by the Rev. Camden M. Coburn, D. D., Pastor of the St. James Methodist Episcopal Church, Chicago. Subject, "The Learning of the Ancients."

Wednesday, 8 p. m. Society Reunion.

Thursday, 10 a. m. Meeting of State Board of Agriculture. Class Day to be held at Grand Ledge, 8 p. m. President's reception to students, faculty and their friends.

Friday, 10 a. m. Commencement Exercises in Armory. Address: D. S. Bullock, representing the Agricultural Course, subject, "Specialization in Agriculture." W. R. Shedd, representing Mechanical Course, subject, "Commercial Supremacy." Miss Marguerite Nolan, representing Women's Course, "The Independence of Women."

Address by President William O. Thompson, D. D., of the Ohio State University, Columbus, Ohio.

A LETTER THAT SPEAKS FOR ITSELF.

The following letters but recently received may prove of interest to RECORD readers:

CHICAGO, ILL., June 4.
Pres. J. L. Snyder,
Agricultural College, Mich.

Dear Mr. Snyder:—I have a vacancy for a man to teach botany and horticulture in a western college. I think that salary will be \$1,500 or \$1,600 and possibly more. If you happen to know a good man I shall be glad to have his name and address. * * *

Yours truly,
J. C. ALBERT.
(Of the Albert Teachers' Agency)

AGRICULTURAL SCHOOL.

A graduate school of agriculture will be held this year at Columbus, Ohio. It will be under the auspices of the Ohio State University and with the co-operation of the United States Department of Agriculture and the Association of American Agricultural Colleges and Experiment Stations. The purpose of this school is to give instruction in the science of agriculture and particularly in the methods of investigating agricultural problems and teaching agricultural subjects. Only persons who have completed a college course and taken the Bachelor's degree or who are recommended by the faculties of the colleges with which they are associated will be admitted to the privileges of this school.

Instruction will be given in four courses,—Agronomy, Zootechny, Dairying and Animal and Plant Breeding. The faculty of the school will consist of about thirty instructors including heads of departments of state universities and agricultural colleges and the directors and other officers of experiment stations in different parts of the country, as well as chiefs of bureaus

and other officers of the U. S. Department of Agriculture. Seventy students from twenty-eight states are enrolled at this time including a considerable number of persons engaged in work of instruction and investigation in our agricultural colleges and experiment stations,

From the character of the faculty and students it is evident that this school will be an important center for the discussion of problems in agricultural science, and education. Dr. A. C. True, director of the Agricultural Experiment Station at Washington, D. C., is the dean, and Prof. Thomas F. Hunt, Professor of Agriculture in the Ohio State University, is the registrar. Prof. Clinton D. Smith, of this college, gives a course of lectures on the "Dairy Cow as a Milk Producer." This school opens on July 7 and continues for four weeks.

"WAITING FOR SOMETHING TO TURN UP"

BY DR. KEDZIE.

Wilkins Micawber was never a student at the Agricultural College. Among the 7000 students who have been at the College his name does not appear. Of his large family of sons and daughters, not one ever applied for admission here. This is not wonderful. Among the large number of regular courses and special courses placed before the students there has never appeared a special course of "Waiting for Something to turn up." No provision or laboratory for such a special course has been provided and no instructor to have charge of such special course. For all the useful and helpful courses of preparation for life's work we have courses general and special. We have ample provision and appliances, but for the do-nothing and helpless waiting class we have no laboratory or instructor. *To do and Learn by doing* is the key-stone of our Educational Arch. The Micawber family are not at home in M. A. C.

When Hon. Edwin Willets left the Presidency of Michigan Agricultural College to accept the position of Assistant Secretary of Agriculture and found the need of well-trained young men in science with practical skill to apply that science to the vital questions involved in the development of the agriculture of this great nation, combined with willingness and ability to apply science to life. He found occasion to make numerous calls for students from the Agricultural College of Michigan. One day he went to Hon. Jere. D. Rusk and said "Mr. Secretary Rusk I want three more scientific men to fill important positions in the Department of Agriculture, and they must all come from the Michigan Agricultural College." "Why," said Secretary Rusk, "You have 13 now from that Michigan College—more than from any other state—and here you ask for three more!" "I know" said Prest. Willets, but I know these boys, and I know the drill they have had in class-room and laboratory, and I know they can do our work better than the men trained elsewhere. We must have them because they are the best of their class." He got his three, and the addition to this class of workers have increased till now more than forty active scientific workers in the Department of



DR. R. C. KEDZIE

Agriculture are graduates of M. A. C.

Sometimes a student thinks that to get a good start in life it is better to start out from some university, rather than this college, and after studying here a few months goes to the university to round out the scholarly standing by the university diploma. Applying for a scientific position this A. B. is surprised to be told "If you had B. S. from the Agricultural College we would give you a place at once, but now you will have to pass an examination as to your qualification for the position."

In various walks in life we find a singular capacity of our students to succeed. Two of our graduates went to a theological seminary and began the study of Hebrew. I was surprised to hear the Professor of Hebrew language say that they were among his best students. "Of course they had not been drilled in the study of languages, but somehow these Agricultural College students had a singular knack of *taking things by the right handle.*"

In traveling over the country and meeting a great number of business men I find the graduates of the Agricultural College, in whatever calling engaged, always standing in the front rank. There is not a descendant of the Micawber family to be found in their list. In all the West their name is legion and their position honorable.

Yesterday I sat down for a lunch in a Lansing restaurant and one of our graduates sat down beside me "to have a lunch and chat with the old Doctor." "Well, Robert, where

are you, and what are you doing?" "On my farm, and making a success of it. I tell you, Doctor, I just make things hum at home!" "Make things hum at home! That music suits my ear, and it is the M. A. C. boy that knows how to play it."

BALL-LIGHTNING IN GALESBURG.

In the *Detroit Free Press* of May 8, is an account of that rare phenomenon, Ball-Lightning, in Galesburg on 6th of May.

"During the electric storm of Tuesday evening, Mr. Milo Williamson was in his sitting room with his wife and five children, when suddenly they were started by a terrific report from the clouds and the simultaneous entrance of a great ball of fire through the open door. The strange visitant halted in the center of the room, where it remained gleaming and glowing like a messenger from hades.

"Animated by fear for his family Mr. Williamson sprang forward and seizing the mass in his arms, rushed to the wide stream that flows near his home where he threw it into the current. As it struck the water there was an explosion that shook the very earth and covered Mr. Williamson with mud and water, leaving him stunned and dazed, although able after a few moments to reach the house, where he soon recovered.

"No other ill effects resulted although nearly half an acre on the river banks adjacent to the scene of the explosion was found covered with dead fish on the following morning."

This is an illustration of ball-lightning, or Globe-Lightning, as described by writers on Atmospheric electricity. "Ball-Lightning is a globe or ball of fire that falls from the clouds apparently by gravity, and its motion is so slow that the eye may distinctly trace its course. Often seen after a powerful flash of lightning, when a ball is seen to proceed from the cloud and fall to the earth in a curved line like a bomb. When it strikes the ground it may explode, darting out rays of forked lightning, or it may rebound like a foot ball before exploding.

"It seems to be an intensely electrified cloud but it is very difficult to explain and impossible to reproduce artificially."

Fortunately it is of rare occurrence. One was seen in Portland about ten years ago when the flag staff on the Webber block was struck.

It makes one shudder when he thinks of the possible results of the explosion of this ball-lightning in Mr. Williamson's house or in his arms as he carried it to throw it into the river. The promptness and courage of Mr. Milo Williamson on this occasion unquestionably saved himself and family from instant death.

In times of such peril it is said that presence of mind is of great value, but I think that absence of body is better.

Lightning rods afford no protection from ball-lightning.

June 6th, 1902.

R. C. KEDZIE.



DR. W. J. BEAL

WHY ATTEND COLLEGE?

The following is written for perusal by any bright girl or boy— young lady or young gentleman— who has been well trained in and out of school to the present time. The boy isn't a loafer or cigarette fiend, nor the girl idle and frivolous, permitting her mother to perform all the drudgery of the household. I hope you have aspirations to be up with the times in this progressive age in all that pertains to education and things that are likely to go with it. It isn't to be expected that your parents had as good opportunities as you can have in these days, but many of them have had their eyes opened to the fact that competition is now active and those best equipped secure the best positions at the best salaries, if employed by others, or win greater success if they strike out for themselves. Who wouldn't rather be a leader in good works than a follower? You must already have noticed that most leaders in good work are well educated; if not so, you may be sure that a thorough practical and scientific education would have made them still more successful.

Many a person with a very moderate education has been a successful man or woman, but it has taken him much longer to win eminence than it would had he the advantage of a better preparation under the guidance



of expert teachers. I am speaking now especially to those who have good habits, health, industry, and perseverance, as they are destined to do most of the best work in their generation. No athlete wins in a great contest without a long training; no blacksmith becomes expert without long practice; no woman can purchase or select and prepare food for a family and do it economically unless she has a good knowledge of the nutrient values of each article of food to form a balanced ration; no man can become a designer or draughtsman of machines without a long preparation for such work; no person can command a high position as teacher in any department unless he has had a thorough training with practice in the same. There are very few short cuts to success. The person who thinks he can do just as well by going across lots instead of following the beaten road is liable to spend much time in retracing his steps while wandering about the field.

All educators of modern times have demonstrated without a shadow of doubt that a person can more quickly and thoroughly become expert in shop, field, or the household by first taking advantage of a course in school or college, where the desired instruction is given with suitable practice in laboratory and class room.

Even those of moderate ability can be much improved by joining a class of enthusiastic students in a college. The testimony of all graduates of Michigan Agricultural College is well nigh unanimous that the course they took was a most profitable investment of time and money. Their sources of enjoyment and their efficiency were much broadened and deepened.

A person with mind and hand well trained lives much more in twelve months than the person not trained.

Let not the reader be misled because a few persons of his acquaintance who graduated at a college have since accomplished little. There are exceptions to all rules.

Let nothing stand in the way of securing a first-rate education,—and the trend of the times is toward an education in the physical and natural sciences, engineering; for women, domestic science and art, where much thorough practice is secured as well as instruction in the class room.

Having been a teacher for many years, I have never lost an opportunity to make observations and inquiries concerning the advantages that come to any one who was fortunate enough to have acquired a good education. It may not be worth while for every one to go through college. Professor Boise, the eminent professor of Greek in the University of Michigan, used to say that it wasn't worth while for every man to study Greek. Since his time colleges have been teaching a great many new subjects, and they are taught well. For hundreds of years a higher education was for the few only, who were to become ministers, doctors, lawyers, or teachers. The brunt of such a course of study consisted in Greek, Latin, and mathematics with a little Hebrew and a few other minor subjects.

Why are college students today three times as numerous per one thousand people as they were twenty-five years ago? I think much of the change has been brought about

through the introduction of scientific courses in great variety. Such studies have appealed to the judgment of great numbers of persons who could not be reached by the attractions of the old curriculum. It has been determined by many wise modern educators that the physical and natural sciences, not only give culture and discipline of great value, but at the same time, the student acquires information and skill which he can begin immediately to apply in his chosen occupation. In other words, we may grant that the old fashioned courses of study are valuable even to the man who has to begin at the bottom of the ladder to learn modern agriculture or to make



WOMENS BUILDING

steam engines, or to make well, articles for clothing the body, or to select materials and prepare food for a family or a club. If I am not mistaken, there are excellent reasons why a man who wishes to raise a variety of good fruits, vegetables, farm crops, live-stock, should take a course in an agricultural college. He will gain time in the end by so doing, more than enough to make up for the expense.

No sensible and energetic person intending to make butter and cheese to any extent can afford to omit a course in a dairy school.

To complete a course of study to fit a person for some business or profession, needs only a moderate amount of money and requires little time—only four years—but it does require grit and perseverance, and the possession of these will usually carry a person through.

M. J. Beal.

THE WOMEN'S DEPARTMENT.

The Women's Department has now finished its sixth year and the results of these years have more than justified the claims made by its advocates and friends. The somewhat unique features of the course, the practical work in sewing, wood-work, cooking and allied subjects, have met with deserved popularity. At the same time these features have been made to serve an educational office, developing mental powers while they train the hand and eye, for it should be remembered that intellectual development must continue to be the chief part of educational activity, now, as it has been in the past. Some technical schools apparently, produce women of great technical skill but without culture and intellectual power.

The subjects found in the curriculum of the best schools, ranging from mathematics and the applied

sciences, on the one hand, to music and art history on the other, are offered the young women here. Emphasis is put on the studies of history and political economy, while English, especially, is made a basic study throughout the course. Opportunity is given for German and French in the later years and in the senior year a wide range of electives, some of them of a practical nature, as horticulture, bacteriology and domestic science, chemistry are open to women students. The new course, as arranged for five years' work, cannot be surpassed, we believe, for efficiency and thoroughness by any similar school in the country.

graduates from this school in preference to those of other schools; teachers of domestic science in the public schools are now in great demand and these positions are open to our students; as dieticians in hospitals and other institutions several of our young women have been highly successful; while in the lines of floriculture, gardening and horticulture, enough has been done to show that women may find profitable and enjoyable occupation in this field.

The up-to-date College girl, and M. A. C. girls belong to the class, is athletic. She has regular work in the gymnasium, with basket ball and tennis and the result is that she develops physical power and grace. This is shown by enlarged lung capacity, increased strength tests, larger measurements, and by graceful, erect carriage and easy alert movements of the body. During the past year these results have been most gratifying.

But College life for girls means more than books and study and laboratories. The haggard, hollow-eyed Senior, worn out by work, is a spectre belonging to the past generation of College women. We are more apt to find the graduate fagged out by an endless round of class parties, society hops, receptions and teas than by an undue amount of mental strain. College girls have found that some play is a necessity and permit themselves a little wholesome fun along with their work. The social functions of college life are of especial value to women when not indulged to excess, and the spirit of comradeship which grows up in community life, helpful, sympathetic, cordial, remains through years a constant blessing.

All these things have their bearing on the formation of character and no woman's school can command or hold respect unless this be its chief aim. Self-control, self-dependence, courtesy, courage, moderation, these are the principles which must be developed in order that life may be rounded out to completeness.

MAUDE GILCHRIST.

TECHNICAL AND SCIENTIFIC AGRICULTURE.

Not many years ago it was thought absurd by most people that a young man should go to school to learn to farm, and that so awful a thing as a scientific principle could in any way be related to practical farming was



SHORTHORN HERD

almost beyond the comprehension. Such ideas are still sadly prevalent.

There is a difference between the so called "book farmer" and the man who has been trained in the science or sciences underlying his work and who is able to make a practical application of the same to every day affairs. The one is of the visionary type, the other is a philosopher, so to speak, directing the great forces of nature to his own profit.

Everywhere in these days we hear as a sort of watchword—"Advancement," and everywhere we are hearing or reading such statements as "this is a wonderful age," "a time of great advancement," "a time of progress," etc., and we do not ask for proof—we see it all about us. In all cases the advancement is to be traced to the activity of the trained mind making application of scientific principles.

Carnegie amassed his fortune by putting a chemist into his great foundries. The richest paying gold mines in the world are mines which thirty years ago could not be made to pay expenses, but trained minds and scientific knowledge have become operative and the impossible has become more than possible. The successful construction and operation of great transportation systems have been made possible for like reasons. The great packing establishments never could have developed their immense business, and especially their foreign trade, were it not for the hundreds of technically trained persons in their employ. Examples could be multiplied.

But how about agriculture? What has science and technical training done for this the greatest industry? The last fifteen years have witnessed great increase in agricultural knowledge. Wonderful discoveries have been made, and the application of scientific principles have saved to the farmers of this country millions of wealth and have made possible lines of agricultural industry which otherwise would have been impossible, and we are only at the beginning of things.

The most cannot be made of this knowledge till it is possessed by every farmer, and of the great army of agriculturists only a few are trained or even informed. In these days of strenuous competition, the farmer, like every other producer, must obtain the greatest amount of product at the least expense, and this can be done only as he can bring the laws of nature under his control, and exercise economies and judgment in the use of methods.

Thousands of farmers are failing to get the best return from live stock because of failure to properly select, breed, feed, and care for their stock. Thousands of farmers are growing thirty bushels of oats per acre when they should be growing fifty and sixty bushels per acre.

How many farmers realize that the plow is the most useful and, at the same time, the most dangerous of tools; that it may be made to mellow or to compact his soil when he has learned the art of using it? And yet such is the case. The crude appearing roller resting by the road side, hewed from some forest tree—how many farmers know that it may be used to conserve moisture in the soil or to hasten its loss, to change the temperature of the soil, and that it may be made a valuable

tool in the destruction of the pestiferous weed. Even this crude roller admits of a high degree of art in its use.

The agriculturist should keep pace with other producers. To do this he must be a technical and scientific farmer—he must be trained for his work and he must understand the scientific laws underlying farm operations. Experience demonstrates this to be true. The times demand it. J. A. J.

NEW BUILDINGS.

At its last meeting the State Board of Agriculture adopted plans for an engineering building and a bath house. The engineering building will be about ninety by one hundred twenty feet and three stories with basement. It will also contain rooms for the department of physics and electrical engineering. The first floor will be used for laboratories and a large room for engines and dynamos; the second floor for draughting and recitation rooms, and the third floor for drawing. This floor will be given up to Prof. Holdsworth and all the work in his department will be done in these rooms. When completed this building will be, perhaps, the finest on the campus and will cost in the neighborhood of \$100,000. Just as soon as the plans are completed the Secretary will advertise for bids and it is expected to get the building well under way this fall. It is understood that it will be placed between Wells Hall and the mechanical building.

The bath house will cost from twelve to fourteen thousand dollars, and besides shower baths, private bath rooms and rubbing rooms, will contain a large swimming pool. It will also contain rooms for a barber shop and an office for the director of athletics. It will stand north of the armory with which it will be connected by a covered passageway. This building will be rushed along and completed as soon as possible.

The bacteriological laboratory is moving along rapidly. The workmen are now at work on the second story and it will be ready for occupancy by the beginning of the fall term.

Y. M. C. A.

Thursday evening prayer meeting was led by Mr. Wm. Thompson. Subj.: For Self or For Service. Our greatest reward comes from service to others. "They bear the palm and rule the best who merely wish to serve."—Henry Abbey.

Chapel services Sunday morning were conducted by Rev. L. B. Bissell of the Franklin St. Presbyterian church, Lansing. The services were well attended and enjoyed by all. Let everybody, as far as possible, attend the Sunday morning chapel services.

The union meeting of the Y. W. and Y. M. C. A. Sunday evening was led by D. S. Bullock and consisted of a Farewell Song Jubilee. The senior members of the Y. M. C. A. gave an account of those things which had had the greatest influence upon them, here at M. A. C., in developing and strengthening their christian characters. The majority agreed in placing "Bible Study" first in importance. Association with christian men and women was placed next though some would

have placed it first; third in order was "Attendance at the association meetings" both Thursday and Sunday evening. To get the greatest benefit from these sources requires earnest consecration, and concentration of purpose with plenty of hard work. Following the talks given by the seniors Dr. Waterman gave a touching farewell appeal to the seniors to always identify themselves with christian people wherever they should find them and to always keep the christian work-harness on. He further said that he would rather see any other two things of the college curriculum removed than the associations and morning chapel.

Harper's Weekly of last week had a likeness of the late Pres. Barrows, of Oberlin, and also a commentary on his life and work.

All interested in education will sympathize with Oberlin in the loss of its president.

PRES. J. L. SNYDER, College,

Dear Sir:—The thanks of this Society, and mine personally are extended to you for the courtesies shown at the College June 5th and for the flowers received. The suggestive decorations, and the students who furnished music and the boys in their drill, helped to overcome the dampness cast by the weather, and next year we hope to do better in audiences.

Sincerely yours,

ELLEN B. JUDSON.

No. 502 Washington Ave., N.

Lansing, June 7th, 1902.

[Michigan Pioneer and Historical Society.]

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J. L. SNYDER, PRESIDENT,
AGRICULTURAL COLLEGE, MICHIGAN.

ABOUT THE CAMPUS.

Beardsley, '06 m, spent Sunday at his home.

The senior commencement invitations are out.

Several M. A. C. students will work in Iowa this summer, canvassing.

The board of the Women's Club has been audited for the term and is \$1.60.

F. N. Smith led the C. E. meeting in Pilgrim church on Sunday evening.

Prof. C. D. Smith came back from his New York trip Sunday morning.

The fruit at the College will not be as abundant as the early season promised owing to the effect of cold weather and heavy rain.

The new rhododendron bed planted this spring will soon be in bloom and all lovers of the beautiful should notice it.

An experimental plot of one hundred and ten varieties of tomatoes will be grown this year under the charge of the Horticultural department.

Mr. Ira Van Skiver, '03, entertained his mother at the College the latter part of last week. She was accompanied by Mrs. Loop, mother of Fred Loop, '03.

Instructor Theodore's little boy was accidentally drowned in the Grand River Sunday. The circumstances surrounding his death are not fully explained and the tragedy is an unusually sad one.

Karl Bryant, '03, entertained his brother over Sunday.

The relay banner won at Albion now adorns the library.

Mr. L. F. Bird, '03, received a visit from his mother and grandmother over Sunday.

Mr. Clark Millspaugh, '02, entertained his mother at the College over Sunday.

Louise and Joseph Taylor entertained their father and mother a part of last week.

Mrs. Granger and daughter of Pasadena, Cal., are visiting with L. E. Granger.

The department of Domestic Science has added to the equipment of the Women's Club some very dainty ramekin dishes.

Many of the students are spending the spare moments working in the beet fields adjacent to the College.

Subscription papers have been circulated in order to defray the expenses of those who are to attend Lake Geneva, Wis., conference this summer.

Some of the faculty spent Friday afternoon at Pine Lake. A party of students also spent the day there.

At the Junior class meeting Thursday the following officers were elected for next year. Pres., J. G. Moore; Vice President, Miss Jessie Palmer; Sec., Glenn Sevey; Treas., C. B. Rose; Auditor, C. I. Brunger; Sergeant-at-arms, Miss K. Gunn and J. M. Churchill.

Halls appeared deserted on Friday and Saturday.

W. K. Wonders, '02, entertained Detroit friends Sunday.

Matt Crosby stayed in Springport till Monday, after the meet, visiting relatives.

There were two picnic parties on the campus Friday, one being the Okemos grange.

Mrs. Avery chaperoned the girls who attended the M. I. A. A. meet at Albion last week.

The beet sugar men are taking work in entomology and doing work in the field.

Mrs. M. L. Dean returned Saturday from a two weeks' visit at Napoleon, the home of Mr. Dean's parents.

Miss Lyford is receiving a visit from a sister who will stay till after commencement, when both will return to their home in Moline, Ill.

Mr. H. E. Smith and wife and Mr. Smith's sister, Mrs. B. F. Bailey of Keokuk, Iowa, have bought the Mumford cottage of ex-Secretary Bird.

E. S. Good expects to spend the summer vacation at the University of Illinois with Prof. Mumford.

The class of '05 has elected the following officers for the fall term: G. A. Morley, president; Miss H. L. Toan, vice president; H. Hunt, secretary; H. F. Tuttle, treasurer; J. P. Haftenkamp, athletic director; G. S. Dunks, sergeant-at-arms.

John Rankin, '02, is located at present in Wyandotte.

P. M. Lyman visited friends in the country on Saturday.

The strawberries are beginning to ripen and deputy-sheriff Sherman stands guard over them.

The weather has been very favorable for crops of late and everything is making a rapid growth.

Dr. Beal will soon be ready to print the next number of the Elementary Science Bulletin.

The American Forestry Association will hold its annual meeting in Lansing, August 27 and 28.

Miss Marie Otto, with '04, who has been teaching school in Okemos the past year, gave a picnic on the campus last Friday to her pupils.

The captains of the athletic teams for next year are: baseball, W. F. Millar; basketball, J. P. Haftenkamp; football, A. D. Peters.

Thursday evening some gentleman who had had too much of Ringling Bros.' Circus, left his buggy top in the College apple trees after meandering around for some time.

Miss Wellman gave a small party at her home Saturday in honor of the Misses Wheeler.

Dr. Waterman is getting out the program of recitations for the fall term. All students who are to be in College next year can secure a program by calling at the President's office before leaving M. A. C. for the summer vacation.

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ABOUT THE CAMPUS.

T. G. Phillips, Matt Crosby and Fred Baker have all received their appointments from the U. S. department of Forestry. Phillips will work in Maine and Baker in Arizona.

Prof. Pettit had a serious accident last week. He fell from his wheel while attempting to mount, wrenching his right knee in such a manner as to keep him in bed. He expects to be on his feet again this week.

Of twenty persons who appeared on the program of the last meeting of the State Horticultural Society held at Pontiac, June 4th to 5th, thirteen have been connected with M. A. C. as students or have had sons or daughters in attendance here.

The Columbian Literary Society have elected the following officers for next term: Pres., F. O. Foster; Vice Pres., R. L. Clark; Secy., W. P. Robinson; Sec. of Records, W. S. Merick; Treas., C. D. Sterling; Marshal, Leslie McWethy.

At a special business meeting last Friday evening the Olympic Society elected the following officers for the fall term: President, C. Armstrong; vice president, D. A. Gurney; secretary, Fred C. Dauncey; treasurer, H. Ray Kingsley; marshal, W. E. Travis; RECORD staff member, Wm. P. Wilson.

The Michigan Pioneer and Historical Society which met in Lansing last week held its Tuesday afternoon meeting at the College. Several of the Faculty appeared on the program during the sessions. At the Tuesday meeting held in the chapel numerous relics of old times belonging to the College were exhibited. Some of the articles were a spinning wheel for spinning woolen yarns, reel, grain cradle, flail, shaving horse and scythe.

The competitive drill Tuesday evening was witnessed by a large number of Michigan's pioneers, and was an especially close contest. The judges, Col. Shubel and Capt. Durst, of Lansing, awarded the gold medal to C company—Capt. Bennett, and presented the silver medal to First Sergt. Millsbaugh, who has worn it for the past month. For the benefit of the visitors, Gov. Bliss being included, a battalion parade was also given.

The State Horticultural Society held its mid-summer meeting at Pontiac June 4 and 5. Prof. Taft, Prof. U. P. Hedrick, Mr. Gunson, and Mr. Monroe of the State Board represented the College. Old students were: C. B. Pettibone, '94; Colon C. Lillie, '84; C. P. Reed, '91; W. P. Ricamore with '03; George E. Starr, ex-'94. Prof. Taft spoke on the Preparation and Application of Spraying Mixtures. Prof. Hedrick spoke on the Apple and Mr. Gunson discussed the Care of the Lawn.

The M. I. A. A. is becoming weaker every year. At the last athletic meeting it was voted to drop out of the M. I. A. A. in foot ball and base ball. We have every reason to be thankful for such action. Some colleges have disregarded almost every rule in the constitution while we have always treated them fairly. This last action places us among more reliable colleges such as Purdue, De Pauw, Notre Dame, and Beloit. There is a great deal of hard work in store for our future football and baseball

players, for in order to have our athletic association a success we will have to win. But if we successfully compete with these colleges we can be assured of a more rapid growth.

The Thirty-third Annual Registration Report of Michigan has been received from the Secretary of State, and contains the vital statistics for the year 1899 in fuller detail than given in the monthly Bulletins issued by the State Department. A copy of the Report will be sent to any address upon request by the Secretary of State, Lansing, Michigan. The former wasteful and useless custom of promiscuously distributing these and other reports has been discontinued, so that they are now sent only where their use is desired.

We are informed indirectly of the death, on May 20th, of Mr. Frederick Steele, who was employed for several years here on the College campus. His death took place at his home in Schenectady, N. Y. It will be remembered by many here that Mrs. Steele was an active worker in the King's Daughters society, while one son, Herbert, is a graduate in the mechanical course class of '96, and the daughter, Clara, graduated with the class of '98. Clara is a teacher in the kindergarten in the Schenectady schools, and she with her mother and brother Roy will remain in Schenectady, N. Y. Herbert is in the employ of the Bullock Electric Co., of Cincinnati. The family have the sympathy of the entire College community.

EXCHANGES.

The University of California is to have a summer school this year. The faculty will consist of educators drawn from universities both East and West. Prof. Scott, of Michigan, is to be one of the faculty.

The University of Paris, founded by the monk Abelard has more students than any American university and yet has no college paper, literary society or commencement exercises.

The following note clipped from the *Dartmouth* may prove of interest to RECORD readers, the article having reference evidently to the Dartmouth-Williams debate: At least one of Dartmouth's debating teams last month learned a thorough lesson as to the great importance of rebuttal. In years past intercollegiate debates were little more than oratorical contests in which the speeches were all committed to memory weeks in advance, and in which there was hardly any extemporaneous work. Now, however, as the Williams Weekly has well said, the "day of set speeches is long over" and the "real test is shown in the rebuttals." This fact has long been appreciated here, but it was brought into greater prominence at Williams-town two weeks ago, when the Dartmouth debaters were obliged to throw aside a very large amount of their prepared speeches in order to meet the unusual position taken by the affirmative. The successful College debater of today, particularly when he is supporting the negative side of a complex question, must prepare practically none of his speech in advance, but must be able through careful study of the subject to adapt his material on the spur of the moment to fit the various turns of the debate. This makes debating a much more valuable training than it has been in the past, for it teaches men to think on their feet.

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