

The M. A. C. Record.

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Institutes.

COLDWATER.

A well attended, well conducted, and in every way successful institute was held at Coldwater February 18 and 19. The Coldwater reporter says that on the 18th, C. B. Charles, '79, read one of the most valuable and interesting papers ever delivered here. A very large audience was in attendance the second day. Leroy E. Lockwood delivered a lengthy and exhaustive paper today on "The Future of the Sheep and Wool Industry." Mr. Ball, conductor of the institute, commended the paper, which denounced protection for the manufacturer without protection for the farmer. Mr. Luce followed with a good address, coinciding with the views of previous speakers, and denounced the importation of 80,000,000 pounds of shoddy each year which displaces so much American wool. Mr. I. H. Butterfield, of Michigan Agricultural College, followed with a very able and instructive paper on "The Present Status of the Thoroughbred Animal on Michigan Farms. The annual election was held today, and the following elected: President, A. L. Smith, Girard; secretary and treasurer, A. H. Bowers, Quincy.

FLUSHING.

The farmers' institute was largely attended both days. The question of state and government economy was referred to at every session, the free distribution of seeds being denounced as a public scandal. George W. Buckingham, of Flint, precipitated a heated discussion by declaring the state appropriation for farmers' institutes to be a useless expense. A resolution was passed almost unanimously favoring such a bill. The institute is said to be the largest and best ever held in the state. The farmers recognize the hard times, but take a hopeful view, and think they are better off than men in other branches of business.

ALBION.

At Albion three sessions were held on Friday and the attendance was large at each session. Interesting papers were read and thoroughly discussed.

The Sketch Class.

To see Professor Holdsworth at his best you should visit his studio on Tuesday or Thursday afternoon when he is with his sketch class. Here you will find, not the instructor in free-hand or mechanical drawing, careful, precise, exacting; but the whole-souled, genial, unconventional artist, the companion of a few advanced pupils who love art for art's sake and their teacher-companion for his own sake.

But if you would penetrate this "Latin Quarter," be assured that there will be no escape until you have posed as "Little Billie," "The Laird," "Taffy," "Trilby," or some other noted character. No sooner had I entered the studio one day last week—an unlucky day when my curiosity got the better of my judgment—than I was greeted with "Aha! here's a 'Mephistopheles' for us." And I thought they were right when, after sitting—I know not how long—

under their siren spell, I was allowed to look at the sketches made of me.

Leave pride behind who enter here, for when once they get you posed they chatter away as though you were a marble statue, with utter disregard for your feelings. Your age they conjecture from the gray hairs about your ears or the wrinkles in your forehead and around your eyes. The mole on your cheek is not artistic; your arms are too long or too short; and your clothes—about that time you are seized with a mad desire to flee from the studio; but your love for art or the artist restrains you, and you remain statuesque, while a tingling numbness creeps upward from your feet through your legs, arms, body, mind. * * * "Just one minute more, while I shade this arm—there!" It is over; and, like a drunken man, you stagger about until you have revived your benumbed sensibilities sufficiently to realize that you have not been electrocuted, but sketched.

During the winter the sketch class will confine its work to casts and models in the studio, but when spring opens, advantage will be taken of the numerous excellent sketching grounds about the campus and along the river and country highways. For oil painting and water-colors our landscapes make an artist's paradise. Prof. Sanderson, one of Boston's noted water-color artists, used to spend several weeks every summer sketching and painting in the vicinity; and some of the paintings done here he counts among his best productions.—D. J. C.

In Weyler's Grasp.

Many old M. A. C. students will remember Sylvester Scovel, who was secured from the U. of M. in 1890 to coach our foot ball team. All who recall him, with his whole-souled, happy-go-lucky ways, will regret his present serious difficulty, which is indicated by the following clipping from the *National Tribune*, Washington, D. C.:

"Sylvester Scovel, the correspondent of the *New York World*, has been arrested at Tunas, Santa Clara province. Scovel was on the staff of Gen. Maceo, and was entrusted to carry many important messages. Three times he boldly left the insurgent camp and visited Havana. It is said Weyler had offered a reward of \$10,000 for the capture of Scovel."

Greek Literature.

The lecture by Dr. Edwards, last Friday evening, on "The Greek Literature" was very entertaining and instructive. This is the first of a series of Friday evening lectures to be given by members of the faculty—a welcome revival of an old-time custom at M. A. C.

Dr. Edwards spoke of the importance of Greek literature. It was the first great literature, and yet it possessed a beauty which has not since been surpassed. From it descended the Latin and all modern literatures. The dramatists of the Elizabethan age wrote with their eyes on Greek tragedy and comedy. Poets of all later times have gone to Greek poetry for inspiration. Orators, even to the present time, look to Demosthenes, whose arguments were so exhaustive as to leave

no place for his opponent. The spirit of the Renaissance may be traced directly from Greece to Italy, and from Italy to England.

Greek literature extends over a period from 850 B. C. to the present time; but so prominent was the ancient literature that when we apply the adjective Greek, we understand at once that reference is made to the earlier literature of that country.

Dr. Edwards spoke somewhat at length of the epic poetry of Homer, of the development of lyric poetry, and of the origin and growth of the Greek drama. In our college work we cling so closely to the modern and the intensely practical that such a lecture as this comes to us as a bright gleam from the past, revealing influences upon the present civilization of which we had never before dreamed.



New Members of the State Board of Agriculture—Thomas F. Marston.

The subject of our sketch began life in Bay City twenty-eight years ago; now he is proprietor of "Oakwood," a dairy farm of 350 acres, and controls the fashionable Jersey milk trade of the city.

In 1883 when young Marston was fourteen years old, his parents moved to Detroit, where he attended school until the fall of '88. A natural bent for mechanical engineering found expression in a desire to take the mechanical course in some college. With the class of '92 he spent one semester at M. A. C., then took the mechanical course at Ann Arbor for nearly a year. His health failed, and he was obliged to give up school work for about eight months. His father was also in very poor health and concluded to spend a few years on the farm near Bay City. The son made up his mind to try farming with his father for a time, with the thought of returning to the study of his profession later. So he took the short course in dairying and farming at the University of Wisconsin, and in the fall of '91 removed with the family to the farm. His father's death the same fall changed his former plans, and he took up farming for his life's work.

Since that time he has given careful attention to every detail of the dairy business and has built up his herd until it now numbers seventy registered Jerseys. He knows all his customers in the city and enjoys their fullest confidence.

Two years ago Mr. Marston married Miss Sheldon, of Rutland, Vermont,

and says it is the best thing he ever did. He is president of the Michigan Jersey Cattle club and of the Bay County Farmers' Institute society, and is now the youngest member of the Board of Agriculture.

The Convention of the Wisconsin State Dairymen's Association.

Dr. Grange reports an exceedingly interesting meeting of the Wisconsin dairymen at Egerton, which he addressed Feb. 10, 11, 12. The dairymen of this state are earnest supporters of the Agricultural College at Madison, the dairy department of which they claim, to a large extent, the credit of establishing. The convention was regarded by the association as a very successful one, an attendance of as many as 500 probably being the average daily number. In addition to the convention proper a dairy exhibit was made of butter, cheese and other dairy products, together with dairy machinery. Among the novelties in the machinery exhibit was a combined churn and butter-worker. Not the least interesting feature of this machine is that of being nameless. A prize of \$20 is offered by its inventors for a suitable name. An elaborate banquet was given by the ladies of Egerton, followed by a ball. At the banquet Dr. Grange responded to the toast, "Freemasonry of the Dairy." Dairying is becoming a leading industry in Wisconsin. In proof of this some figures shown at the convention gave the curious fact that a division of the cattle of the state would give one to each inhabitant. Dr. Grange lectured to the convention upon the milk gland; its structure and diseases. The convention adjourned after a session of three days.

A Good Word for Our Dairy Students.

F. A. Leighton, who has visited numerous dairy conventions in the East this winter and is an authority on butter-making, writes as follows in the *Chicago Produce*:

"The students of the Michigan Dairy school had a number of samples of butter at the dairy convention held in that state last week. The dairy department of the Michigan school may not be fitted up as well as those in sister states, but the students there make just as fine butter as it is possible to get at this time of year. There were quite a number of dairy students in attendance at the convention and it struck me as being a good thing to encourage the attendance of the different dairy schools at the conventions. If they could all attend in a body accompanied by the teachers in charge, even if only a couple of days, they would derive more benefit than they could in the same length of time at any school."

Fast Time.

That letters do not tarry much on the way is shown by the rapid flight of one of these little messengers from Prof. E. M. Shelton, '71, to Dr. Kedzie. On the 15th of January it started from Brisbane on the eastern coast of Queensland, Australia, and over 7,000 miles of the broad Pacific, under a tropical sun, and more than 2,000 miles of mountain, hill and plain, from San Francisco to Lansing it sped along

at the rate 290 miles a day to its destination. Nine thousand miles in 31 days and at a cost of only five pence, is not so bad.

Prof. Shelton says his wife and seven children "are all well and happy in the life of these colonies. We have been here now almost exactly seven years, and we all agree that these seven years have been among the happiest of our lives. * * * I am hard and delightfully occupied in the work of building up a new agricultural college. We have a magnificent farm of 1,700 acres, and the government has dealt liberally with us as to means and appliances. Since I have undertaken this new work, as principal, I have grown fully 20 years younger, and at the present rate of progress, should be quite a boy before I am 60. We shall begin work the first of July; have accommodation at present for 56 pupils; have engaged a chemist, a good man, bred in the German schools; and are slowly adding to the teaching force as the men turn up."

At the College.

Nelson Westcott is recovering from a week's illness.

Mr. M. L. Dean visited his parents one day last week.

Prof. and Mrs. F. S. Kedzie entertained at six o'clock tea Thursday evening.

Miss Madge Leighton of the U. of M. is visiting her cousin, C. D. Butterfield, this week.

D. B. Shedd and wife of Grand Rapids are spending a few days with Mr. and Mrs. M. L. Dean.

Dr. Grange left for Menominee last Wednesday to apply the tuberculin test to a large herd of Jerseys.

Messrs. D. A. Vaughn, Jr., and L. W. Smith of Ionia were guests of Miss Amy Vaughn, '97, the 13th inst.

W. D. Hurd, '99, was elected president of the Lansing high school alumni association last Friday evening.

Mrs. K. L. Butterfield attended the dedication of the Delta Gamma Society building in Albion last Friday.

The Feronians are rehearsing "The Last Day," which they will give in the chapel a week from Friday evening.

Last week the children's Sunday school at M. A. C. sent \$5 to Armenia—the total of their collection since September last.

For over two weeks now has Mr. J. S. Conway lain at the hospital in a helpless condition. There is but little apparent change.

Charles Gower, '98m, and Frank Bement, *sp.*, attended the reception given by the Delta Gamma sorority in Albion Friday evening.

E. A. Winegar, with '99, took the special course in dairying this winter, and last week left M. A. C. to accept a position in a Detroit creamery at \$50 per month.

Eugene Price, '00, was called to Maple Rapids last Tuesday by the death of his cousin, Winfield Boyle, who was killed by the accidental discharge of his gun.

President Snyder has arranged with the Rt. Rev. G. D. Gillespie of Grand Rapids for a lecture in the College chapel next Friday evening, February 26, on "Birds-eye View of Penal and Pauper Institutions." All are invited to be present.

F. W. Burt, with '00, took the special course in dairying this winter. Last week he returned to his home, Ransom, where he and a brother will

engage in the manufacture of dairy products—cheese in summer and butter in winter.

The committee on schedule of studies is wrestling hard with the arrangement of the daily program for next term. This arrangement becomes more and more difficult each term since the addition of the women's course and the special courses.

The botanical department is re-arranging its timber specimens that it received from the World's Fair, in order to have a laboratory room in the basement for the testing of seeds. Among the numerous interesting specimens found in the forestry collection are a white-pine plank 3 ft. 4 in. wide, 3 in. thick and 14 ft. long; a block from a birch tree 3 ft. in diameter, and blocks from white pine and swamp white oak trees 4 ft. in diameter.

Mrs. W. B. Barrows of the Agricultural College gave a charming reception to the wives of the members of the faculty, yesterday afternoon, in honor of Mrs. R. H. Pettit, the wife of a new member. The interior of the house was beautifully decorated with palms, potted plants and clusters of cut flowers. Mrs. H. K. Vedder assisted in the drawing room and the dining room was in charge of Mrs. Charles L. Weil and Mrs. E. M. Kedzie.—*State Republican*, Feb. 19.

During the latter part of September the Horticultural department prepared two mushroom beds under the benches of the west forcing house; one across the south end and the other under the east bench. The spawn was planted in these beds about December 1. The first crop was taken about January 15, and since that time several crops have been gathered; the greater portion of which were presented to the Botanical department for use in their collection. The mushrooms are not found in large numbers but are of good size and quality.

Prof. Harriman, science teacher in the Lansing high school, visited the College with his class in physics, numbering nearly sixty, last Tuesday evening. After listening to an illustrated lecture by Prof. Woodworth on the Crookes tube and X ray apparatus, the class divided into three sections. While one section was in the dark room trying the effect of the X ray upon hands, arms, etc., another was listening to the phonograph, and the third made a visit to the kitchen laboratory. By changing divisions around, all were given instructive entertainment during their stay of an hour and a half. The same evening Principal Leon Tyler drove over from Grand Ledge with his wife, three teachers, and three students, and they were similarly entertained after the Lansing visitors had gone. Quite successful shadowgraphs were taken of the hand of Miss June Davis and of Mrs. Tyler.

The Work of the Dairy School.

GORDON H. TRUE.

(An address given before the State Dairymen's Association at Charlotte, Feb. 6, 1897.)

The special course in dairying at the Agricultural College is intended to give the student a thorough knowledge of the principles involved in the manufacture of butter and a certain amount of practice in all the details of the work of butter making as it is conducted in the farm dairy.

THE USE OF THE HAND SEPARATOR is taught, and for this purpose we have, through the kindness of the man-

ufacturers, six styles of the four leading makes of machines. Our boys have work on all these different machines and have a chance to compare for themselves the relative merits of the different makes. Complete reports are made each day of whatever operation is gone through, and the blanks provided for this purpose serve to bring to the attention of the student all those different points which it is important that he should come to note as a matter of course. In separating milk, for instance, the temperature of the milk, the speed of the machine, the capacity of the machine, the thickness of the cream and the loss of butter fat in the skim milk must all be noted.

PRACTICE IN THE USE OF THE COLD DEEP-SETTING CREAMER

is also given and the points bearing on the efficiency of creaming brought out: as the temperature of the milk, the temperature of the water in the creamer, closeness of skimming, the thickness of cream and loss in the skim milk. This gives an opportunity for the comparison of the two methods of separation of cream.

Then, whether our student has gotten his cream by means of the separator or the creamer, his next duty is to ripen the cream for churning on the following day. This question of ripening the cream is one of the most important ones connected with dairy work and one which is the least understood; so we try to lay special stress upon it in our work. The cream is set in shotgun cans surrounded by water in plain zinc-lined tanks, such as any one could make. The temperatures of cream and the surrounding water are recorded, with the kind and amount of starter added; and, at intervals during the day, the temperatures are again noted and the acidity of the cream is tested, so an opportunity is given for the study of the relation of the starter and temperature to the ripeness of the cream.

Then, on the next day,

THE STUDENT CHURNS HIS CREAM.

Noting the size of churn, kind and amount of cream, the temperature, per cent. of fat and acidity, the amount of color added, the length of time churning, the temperature of the butter when it comes, the amount of butter-milk and the loss of butter fat in it, points with reference to washing the butter, the amount of salt put in, and, in fact, all those points which may have a bearing upon the quality of the butter.

Then the butter is gotten ready for market, usually on the next day, for we generally work our butter twice, and is packed properly and neatly in bail boxes, twenty pound tubs, or paper packages, or is printed in pound cakes for the local market. All these processes have their little kinks which one learns only from doing them.

There is

THE BABCOCK TEST,

too, a thorough knowledge of the use of which is given. Every lot of whole milk that is separated or set in a creamer, every lot of skim milk and cream that comes from a separator or creamer, and every lot of buttermilk that comes from a churn, is tested.

The herd milk from the College and from the three different farmers of whom we buy milk is tested every day and a composite sample also taken, so that the use of the test is taught in the most practical way. By means of it the losses in the work each day are traced.

Beside these operations, boys are given a little work in the

PASTEURIZATION OF MILK and the use of pure cultures in cream

ripening. No expensive apparatus is required, but a simple device designed at the College with an ordinary shotgun can at the basis of its construction. In fact, it has been the attempt all through our work to use apparatus as simple and inexpensive as possible which is at the same time efficient.

KEEPING THINGS CLEAN.

Perhaps the most important part of the practical work has not been spoken of, and that is keeping things clean. Every man is required to leave every thing he has used clean, and, besides this, two are detailed each day to be responsible for the general cleaning up of such things as do not seem to belong to anyone in particular. And if I were going to choose a man to work for me, I would choose him from the way he did his work when on "scrub" duty. It don't make any difference how much else a man knows, if he don't know enough to keep things clean he isn't fit to have any connection with a dairy or any line of dairy work.

OTHER WORK FOR OUR DAIRY STUDENTS.

So much for the practical dairy work, which takes three hours of the student's time every forenoon. While this is considered the central and most important part of the work, it is by no means the limit of our resources. The rest of the day is taken up with lectures on dairy and kindred subjects. Talks on dairying, with practice in scoring butter, laboratory work in dairy chemistry, lectures upon dairy bacteriology, cattle feeding, the dairy breeds of cattle and how to judge them, veterinary science, and botany and forage crops, all find a place in the student's program, and go to make up a course of study which would be of value to many older heads than rest upon the shoulders of our dairy boys.

And right here I want to say that we have never had a brighter or more capable lot of boys in our dairy course than those who compose this year's class. The boys, almost without exception, seem to feel that they are there for business, and do their work accordingly.

To put all that I have said into one brief sentence: We are giving seventeen earnest, efficient, young men six weeks of training in good, plain farm dairying. This does not seem like a great work, but with our present equipment it is just the limit of our capacity. Twenty would crowd us beyond the point where we could do good work.

WE ARE HANDICAPPED BY LACK OF EQUIPMENT.

It is discouraging to those of us who would like to see built up in Michigan an institution where a training in creamery work and cheese making could be given all the young men of the state who might apply, to think how we are handicapped by the lack of equipment. Our present dairy rooms at the College occupy a part of the basement of one of the laboratories and our whole apparatus probably cost less than five hundred dollars. Undoubtedly, for the money invested, we are doing much more than some of our neighboring states with their forty or fifty thousand dollar dairy buildings, but our work is not filling the needs of the people of the state.

As long as nearly 95 per cent of the butter made in the state is made on the farms we cannot expect dairying to be a very great source of revenue to the state. And such is the case.

Now, I would like to ask how much longer the farmers of Michigan, the dairy farmers of Michigan, as represented by this Dairymen's Association, are going to be satisfied with this condition of things.

Of the fifty-two million pounds of

butter made annually in Michigan, fifty millions are made on the farm, and you all know what that means.

Suppose we allow that only half of this finds its way to the village or city grocery store, the rest being consumed upon the farm or sold to private customers, and that this twenty-five million pounds sells for five cents a pound less than creamery butter; here is an annual loss to those who make this butter of a million and a quarter of dollars.

Then there is the skim milk left from the making of this fifty million pounds of farm butter, every hundred pounds of which contains, at a very conservative estimate, a half a pound of butter fat more than if properly handled; that means over \$300,000 worth of butter fat fed to calves and pigs on our Michigan farms every year. Perhaps this, too, is good business method.

But how are these leaks to be stopped? What are we doing as a state to improve our dairy products?

Why, in a sister state with eight milch cows to our five, the annual dairy product is estimated at three times the value of that of our own state, and instead of two million pounds of creamery butter per annum, she turns out twenty-six millions. And do you suppose that the fact that in that state the people have seen fit to establish perhaps the best-equipped dairy school in the West, which is crowded every year with its hundred students, has anything to do with this difference?

I can't help feeling that we of Michigan have been a little short-sighted in denying ourselves the advantages to be derived from a well-equipped dairy building at the Agricultural College. We have been satisfied with making butter on the farm in the way our mothers made butter back in "York state" thirty years ago, and now that butter is down in price we open our eyes to the fact that dairying "don't pay," but fail to realize that our way of doing things is at least ten or fifteen years behind the times.

MICHIGAN CHEESE.

Then there is the question of Michigan cheese, a question which I don't know much about except that I fully agree with our dairy inspector, Mr. Haven, when he says that the word "Michigan" on a cheese box conveys no information as to the contents except that it was made within the limits of the state.

Such should not be the case, and now that the cheese business has been placed on a firm basis by the recent enactment by congress of the filled-cheese law, Michigan factories should turn out a quality of cheese that will find sale upon any market at the highest market price. Michigan is not a dairy state, but it is not because we lack the natural conditions favorable to successful dairying. We have the cows, though if we knew just what they were doing we would kill half of them for beef. We manufacture butter, but our market is the village grocery. We have a reputation for our butter, but when we get outside of the state and the subject of Michigan cheese is brought up, we change the subject.

These facts are not pleasant to think about, but they are nevertheless facts, and facts which we ought to face in a practical way.

I think that the writer in the *Chicago Produce* a year ago expressed a grain or two of truth when he criticized us here in Michigan for expending so much energy in the, to him, hopeless task of educating the farmers to make first-class butter on the farm. Even

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It should be the work of the dairy school to fit young men to fill positions in the creameries and cheese factories where a large community of patrons shall receive the benefit of their training. We have numerous calls to recommend young men for such positions, but we are unable to satisfy them.

You can understand the reason why. In spite of the fact that no effort is being made to secure an appropriation for a dairy building at the College, and that to suggest such a thing during these hard times may seem almost like treason, I firmly believe that in Michigan, as well as in Iowa, Wisconsin, and Minnesota, the influence of the Agricultural College, acting through the medium of a well-equipped dairy building, would be felt in a saving of thousands of dollars to the farmers of the state.

The Real Student.

KATHERINE MCCURDY, '99.

The real student, a person who has learned to investigate thoroughly and afterwards to master the principles which underlie any subject that he may choose for study, is perhaps an exception though not an uncommon one. In school life, we find many students who depend upon the memory rather than the thought powers. One of this class may possess an active mind, thus appearing very bright, and may receive high class-marks without having done much real thinking. The memory may be well enough developed to retain the materials of knowledge, but these materials, since they have not been brought into proper relations with those already in the mind, will not be converted into real knowledge.

With the other class of students, those who endeavor to understand their subjects thoroughly, every idea

or image voluntarily received is rapidly woven into the fabric of the mind, adding to its strength, usefulness, and beauty. The mental acquisitions of such students are healthy and practical; they produce no pedantry or affectation; they build up men and women that are genuine through and through.

The real student in natural history is not the one who commits to memory classifications and descriptions of plants and animals as they appear in books; but rather the one who seeks the object in its native place, watches it from day to day until he has found out its habits, and then examines it externally and internally until he has discovered the location and function of its every organ. But he does not stop here. These facts may be worth little in themselves, but when by the aid of careful thought, they are properly related to what is already known to the investigator, they give to him a more real and certain knowledge of living things, the general plan of their structure, and the process by which they are developed. Such is the ultimate aim of every true student in any department of natural history.

In literature, the real student goes also to the fountain-head for his objects of study. He would find no profit in merely reading the views of the critics in regard to Shakespeare and Milton, for they would furnish little food for thought until he had read and at least partially understood the authors themselves. And nothing but hard thinking on the real qualities of a great author's work can broaden or in any way improve the literary taste and understanding of a student.

What is true of the student in natural history and the student in literature is true of all real students in every line. He examines objects of study at first hand, thinks independently upon them, and assimilates what is acquired thereby for the genuine, practical improvement of his mind and his life.

While the world lasts the sun will gild the mountain tops before it shines upon the plain.—*Bulwer*.

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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 regular'y is to subscribe.

The Retiring Members of the Board of Agriculture.

It is probable that few realize the amount of time a member of the State Board of Agriculture gives to the public free of charge during his term of office.

With ten meetings during the year, which is about the average, the time required, including going and returning, being on the average three days for each meeting, sums up thirty days annually; hence, for a full term the generous board member has given a full six months of his time. At this rate, Hon. Henry Chamberlain has given one full year's time without pay to the College and its interests. He was first appointed member of the board in 1883 by Gov. Begole, serving the full term of six years. In 1891 he was again appointed by Gov. Winans.

It was during his first term that the mechanical department was established, and he has always taken an active interest in that department. During his last term he has served on the committee on employees, experiment station, mechanical department and College lands.

During his twelve years of service he has been present at most meetings of the board and has taken an active part in all matters coming before the board. His ripe experience and sound judgment have been invaluable; he is a strict constructionist in all matters of law and precedent, and therefore held firmly to the spirit and letter of the law organizing the College, and the land-grant act of congress which gives the College its endowment. He believed in keeping the College true to its original object and never swerved one iota from that idea.

Mr. Chamberlain retires from this long service with the sincere respect of his associates and the regard due to a man who is always a gentleman.

Hon. W. E. Boyden was elected a member of the board in the place of Hon. Edwin Phelps, who was compelled to resign on account of ill health, and has been a member but two years. Mr. Boyden is one of the most active and public-spirited of the young farmers of this state. His interest in purebred live stock is intense, and he takes an active part in all organizations for its improvement. He has been chairman of the farm committee during his term of office, and as such has become greatly interested in the agricultural work of the College.

His genial ways and friendliness to all with whom he comes in contact have won the respect of the College

people, and of his associates on the board, and all are sorry that the exigencies of politics do not allow of his reappointment.

The Farmer's Side.

To the enemies of the Agricultural College who periodically "bob up" with some plan for exterminating or transforming into a penal or reformatory institution the best friend the farmer has in the state, the *Oscoda County Outline* says a few words that we take pleasure in quoting:

"There is some disposition on the part of educational men of this state to 'disorganize' one or two of the colleges, so as to give more prominence to some other more favored colleges. The State Agricultural College is one of those mentioned for discontinuance, and one reason given is that it does not quite equal in returns the annual outlay; and another reason is that the popular trend is towards something less suggestive of soil and toil. It is a great mistake to attempt an overthrow of the idea of educating the farm boys and girls in the peace of their fair homes and healthy occupation. Farmer boys are known to occupy the best and highest places in this country, from town clerk to president of the United States. There is no college in the state that can do better for your boys than the Agricultural College. We said so when President Gorton was there, and we say so now, when President Snyder is at the helm. The U. of M., the Hillsdale, Albion, Kalamazoo, Hope, Adrian, Olivet, the Mining School, Orchard Lake, both state normals, Detroit Medical; all have their glorious records. But the Agricultural alumni need not hide their parchments by any means. We do not see why the farmer should do without his college any more than the literary student, or law, or medic, or military, or miner. As we view it, we believe that a requisite number of first-class competitive schools cause a higher and better standard of education."

Agassiz and Darwin.

DR. W. J. BEAL.

The recent debate in the chapel as the program of the Natural History Society, has awakened an interest in Agassiz and Darwin. In 1861, the writer was a student of Agassiz and Gray at Harvard; the former antagonized the views of Darwin with great energy, the latter was delighted with all that Darwin wrote on the subject of evolution and kindred topics. Agassiz, in his lectures on geology, taught that there had been at least sixty catastrophes in past ages by means of which all animal life became extinct; then following each extermination there were new creations as he believed, not a single pair of each kind which might gradually stock the lands and the waters, but whole swarms of insects, schools of fishes, flocks of sheep, herds of buffalo, etc., were created, not only in one spot, but often in many places. Darwin believed that all animal and plant life originated from one or a very few of the lowest forms, and through unlimited time other and higher forms made their appearance.

It is reasonable to suppose that thorough students of botany and zoology the world over, who not only make original investigations, but read what others have written, should be the most capable of deciding the merits of these extreme views of two eminent men.

For some years past, so far as I can

learn, not a botanist or zoologist of any prominence can be found who believes with Agassiz as above intimated; on the contrary, they all essentially agree with Darwin in believing that all life as now manifest originally came from lower forms. As was to be expected, people who knew little of these subjects by actual study and investigation, were slow to accept the new teachings of Darwin. This was especially true of the orthodox clergy; but as this class of people investigated the subject more and more, large numbers came to agree with Darwin. As proof of this we have only to note a series of nine essays by Lyman Abbott now appearing in *The Outlook*. At this writing seven have appeared from the eminent divine of Plymouth church of Brooklyn, under headings like these: "The Theology of an Evolutionist," "Creation by Evolution," "The Problem of Sin," "The Evolution of Revelation," "The Place of Christ in Evolution," "Some Ancient Correspondence," "Redemption by Evolution."

Agassiz taught that animals and plants were God's thoughts expressed in living forms. He was a botanist of high rank in his early years. Much of his influence was apparently due to his unbounded enthusiasm, the novelty of the things he spoke about, his excellent flow of language, and his rich foreign accent. At one time I had collected from Nohant a basket of common shell-fish, among which was one of unusual size. The delight exhibited by Agassiz at the sight of the specimen, his extravagant exclamations, would have made it a pleasure to almost any lover of nature to gladly turn over the shell for the use of the great student of zoology. This induced everybody to hunt animals for Agassiz; the world was at his disposal.

I have seen him passing by his collections and explaining to a large number of members of the state legislature. His fascinating manner and earnestness induced the members from year to year to return to the capital and appropriate money for his museum in amounts unprecedented. Agassiz's son Alexander, a graduate of two departments of Harvard and since his father's death curator of the museum, has for years been an evolutionist with Darwin. Fortunately for the museum, this son has been able to bestow large amounts for its support, as he became very wealthy by means of his stock in the Calumet and Hecla mine. This younger Agassiz has found time to spend in making money, something his father could not do.

Agassiz was mentioned as a great teacher—and he certainly deserved this title. Excepting a few short courses of lectures at the University, usually attended by less than forty persons, his time at toiling was devoted to eight to fifteen special students, most of whom were graduates in a course of four years. What did he do for these special students? He saw that they had an abundance of good material, and devoted to each from five to ten minutes or less per day during a term, never telling them anything, excepting "You are right," or "You are wrong," as the case seemed to be. "Compare specimens of these two or three species and see their relations to each other. Do not read any books concerning such things till I advise you to." A few directions were given as to how to dissect delicate specimens under water and other little matters. He tried the patience of his students, who at first expected to be told about everything they did not see, and to be helped over every difficulty.

I have always regarded these lessons

of Agassiz as the most valuable training of my life. This system of teaching to some extent has slowly percolated through the instruction as now given at many of our best universities and colleges. In many instances it has been tried on children of the first grade and other low grades with excellent results, but the principle seems to be a difficult one for teachers to adopt. It is so much easier to tell than to refrain from telling; then, too, the pupils are to be rushed along over a considerable course. The aim is too often, to impart a considerable amount of information with little gain of discipline and power by the student.

Department of Botany.

The Effects of Nicotine.

In the February number of the *Arena*, Prof. J. W. Seaver, A. M., M. D., of Yale University, gives a comprehensive article on "The Effects of Nicotine," dealing principally with the physical effect on young people.

He presents the arguments pro and con, having little to say in favor of the use of tobacco, and much that shows its baneful effects.

When we realize that the United States spends as much annually for tobacco as it does for flour, the importance of the subject becomes apparent.

Prof. Seaver says, "In the ordinary cigar or pipeful of tobacco the amount of nicotine is about one per cent, and is a substance that is really absorbed by the mucous membrane." White says that 1-30 of a grain will produce toxic symptoms.

A hospital physician says that in cases of delirium tremens they have always found that the patient has used tobacco and in a few cases the disease was caused by tobacco alone.

Boys in secondary schools are more liable to form the habit of smoking, because they are away from home and are at an age when they wish to appear mature and "ape their elders." A principal of one of the largest of these schools says that more boys break down in health and are sent home from the use of tobacco than from any other cause.

"A tabulation of the records of the students who entered Yale in nine years and were examined and measured, shows that the smokers averaged fifteen months older than the non-smokers, but that their size, except in weight, was inferior in height and in lung capacity."

The effect of even moderate doses of nicotine is perceptible on the whole nervous system and muscular ability.

The experiments of Dr. W. P. Lombard of the University of Michigan on the latter point are summarized as follows: In from five to ten minutes after beginning to smoke an ordinary cigar muscular power began to diminish, and in an hour, when the cigar was burnt, it had fallen to about 25 per cent of its initial value. The total work of the time of depression, compared with a similar normal period, was 24.2 to 44.8.

Smoking stimulates secretion, and for this reason has been recommended as a sort of gastric stimulant after eating, but the ordinary use usually causes a secretion of the fluids at a time when there is little food in the stomach to be acted upon. So when food is taken the glands are depleted and are unable to act.

The effect on the blood is bad and on growth is very measurable. Dr. E. Hitchcock of Amherst college says: "In separating the smokers from the

non-smokers, it appears that in the item of weight the non-smokers have increased 24 per cent more than the smokers; in growth in height they have surpassed them 37 per cent, and in chest girth 42 per cent. And in lung capacity there is a difference of 8.36 cubic inches (this is about 75 per cent) in favor of the non-smokers, which is three per cent of the total average lung capacity of the class.

"The widely differing growth in capacity of lungs points to the influence of tobacco on respiration. Inspiration is essentially a muscular act and as such would be seriously impeded by nicotine. But even farther than this must act the irritating substances of a smoke which readily causes inflammation and soreness of any mucous membrane. Now, to fully expand the lungs under such conditions is uncomfortable if not impossible, and respiration degenerates into an incomplete act.

"I do not know how we can compare the work of the users of tobacco with that of the non-users in mental lines as we can in physical lines. I can tell you absolutely whether a man has gained a pound in weight during the year, but I cannot tell you by any such definite means the mental progress that has gone on in that time. We must always be exceedingly careful in handling statistics of the mental process. Out of our highest scholarship men only a very small percentage (about five) use tobacco, while of the men who do not get appointments over 60 per cent are tobacco users."

In athletic contests where the maximum of effect is demanded, tobacco is one of the first substances forbidden.

The Order of King's Daughters and Sons.

During the past year the desire has been expressed by many in our community to know more of the order of "King's Daughters," its origin and the extension of the work.

The order was founded in New York city, Jan. 13, 1886, by ten women. Its constitution states that its aims and purposes are "to develop spiritual life and to stimulate Christian activities" and that all "who accept these aims and purposes hold themselves responsible to the King."

No denominational lines are recognized, no plan of work designated beyond the motto of the order, "To look up, not down, forward, not back; out, not in; and to lend a hand willingly whenever the Master calls." The motto is freely acknowledged to have been borrowed from the "Lend-a-Hand" movement, as was likewise the watchword of the order, "In His Name"—the initials of which are found on the silver maltese cross worn by the members, which has become almost the universal sign of membership, replacing the purple ribbon, which is of equal significance.

While the organization is inter-denominational, perfect loyalty to that branch of the church to which its members belong is insisted upon, and all circles in churches are under the guidance of their pastor or clergyman.

At the time of organization the word "circle" included ten members, but soon the impracticability of limiting the number was felt, where bands of women were working for a common cause, and today the work is carried on by groups of members, sometimes ten and even less forming a circle, sometimes numbering in the hundreds. Each circle has for its officers, a leader, vice leader, secretary and treasurer.

The president of the order is Mrs. Margaret Bottome.

One thousand lines of work "In His Name" are recorded at the headquarters of the order. In 1887, after urgent request, membership to the order was opened to men and boys and the incorporated name is now "The International Order of King's Daughters and Sons."

The oldest member in the order is a daughter in Brooklyn, N. Y., 102 years old, its youngest was made such the day she was born.

The membership is 400,000, and has representatives in more or less numbers in North and South America, Great Britain, Germany, France, Italy, Greece, Switzerland, Denmark, Turkey in Europe, India, China, Japan, Turkey in Asia, Australia, Sandwich and Hawaiian Islands, also Bermudas and Bahamas.

In the February issue of the "Silver Cross" magazine is found the following in regard to the work in Greece: "The history of the order in this classic land is full of interest. The first step in the grouping of circles to form a branch was to obtain permission of the government, an essential prelude to the collection of money by any society for charitable purposes, or otherwise. This granted, the branch became an incorporated body, with the right to found charitable institutions. An individual circle has been especially interested in 'Incurables'; it was natural that the first united effort should be the opening of a home for this class of sufferers. In October, 1892, a small cottage was rented in the suburbs of Athens, a matron and nurse were obtained, and the home began its blessed work. Rapid growth soon necessitated larger quarters, and the home was speedily recognized as a charity that supplied a pressing need, being the first of its kind in Greece. Boxes for contribution were placed in the churches and many of the bishops, especially the metropolitan, interested themselves in securing subscriptions from the monasteries. A visit to the home from her Majesty the Queen, was accompanied by a handsome donation, and other gifts came from rich Greeks abroad. The plans for future work are far reaching and admirable."

Thus the longing for reality in religion, and the question as to how faith could be made vital and manifest has unfolded itself. One of the great objects of the order has been accomplished, that in bringing the forces engaged in no work, or at ineffectual efforts at things in which they were unfitted for, into service where their abilities would meet the existing need.

In our midst, October 8, 1895, "The Try and Trust" circle was formed, with five charter members. Today we have on our roll call twenty-two. Meetings are held every alternate week at the different homes for Bible study and spiritual development. An idea of the efforts made by the circle to lend a helping hand may be gathered from the first annual report, which follows:

Money distributed—To Persia, \$4.00; to Armenia, \$10.00; to India for education of boy for one year, \$15.00.

Food and clothing—To Michigan fire sufferers, two large barrels of clothes; about 240 lbs. groceries to Lansing (each member contributing 1 lb. a month); a box of printed matter to Western missionary.

Also the expense paid of sending a child from Tenement House district, New York, for a ten days' outing to Christian Herald Home, Mt. Lawn, N. Y.

An interesting point is that the Lansing circle will adopt the sister of the boy in India mentioned in the report.

The Lansing and M. A. C. circles have had two very pleasant joint meetings.

Through the efforts of the circle and the kindness of Prof. Taft and Mr. Pratt, flowers were delivered weekly at the Lansing hospital during the past summer.

E. S. B. W.

Making Up Entrance Conditions—A Application of the New Rule.

On March 9, 1896, the faculty adopted and inserted into the body of rules, as rule 1a, the following:

In the case of students that have failed in one or more subjects at the entrance examination, no fee shall be charged for the subsequent examination, provided it be taken within a year of admission to College; after that time the fee for special examination shall be required.

In order to lessen the work of the entrance examination committee, and also to allow students to concentrate their attention upon one subject at a time, the following schedule of examinations has been arranged, and any student who has failed to make up his entrance examinations until now is expected to present himself at the time specified, or pay the usual fee for a special examination later.

U. S. History, Saturday, March 13.

Arithmetic, Monday, April 5.

Grammar, Saturday, May 1.

Geography and spelling, Saturday, May 29.

Students are reminded that those who entered under the rule relating to applicants over eighteen years of age are not exempt from re-examination, but must comply with the above conditions.

WALTER B. BARROWS,

Chairman Com. on Entrance Examination.

A Heavy-Weight.

[We take the liberty of quoting the following from a letter from H. B. Cannon, '88.]

"While in Buffalo I met Orel L. Hersher, '84. He is, as you may know, a "bee-man;" however, there is no formic acid in his equipment. He is a big fellow and as genial as a June morning. He is a lawyer by profession, and may be found half way up one of the business mountains in Buffalo—Real Estate Exchange Building.

"I am under many obligations to him, for he helped make my stay in Buffalo very attractive. He keeps bees at Big Tree—some nine miles out, so is a suburbanite—nights and Sundays. He also has bees at another place; hopes, doubtless, to become a honey king and wear a triple crown of beeswax just over the spot where now he makes a few hairs do a deal of duty. Say, fellows, if you need a sensible lawyer to help you put a clause in your wills—to endow a new chair at M. A. C.—just call on "Hersh." If you say "Economic Entomology" he'll fix that will so well that there'll be no breaking it, if a New York lawyer can do it.

"They say down there that some weeks since a man whose reputation for veracity had received rough treatment in a case where O. L. H. cross-examined, came into the office with a mouth full of oaths to swear his reputation back again. He let them fly at "Hersh," but desisted when this smiling two-hundred pounder placed a hand on the offender's shoulder and just leaned a little to the off side. It was enough to have been leaned against by such a lawyer."

A Scarecrow for Mosquitoes.

Prof. Pheltschue, a German naturalist, has discovered a curious way of repelling the attacks of mosquitoes. The little pest has a deadly enemy in the dragon fly, which pursues it and feeds upon it. The professor has found by many experiments that the dried bodies of a few dragon flies suspended by threads around a bed keep the mosquitoes at a distance.

The Winter Tale.

Two skates,
Some ice,
A girl,
How nice!

A hole,
A fall,
No girl,
That's all.

—E. J.

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W. J. BEAL.

The Michigan Academy of Science.

The third annual meeting of the Michigan Academy of Science will be held at Ann Arbor, on March 31 and April 1 and 2. The date has been fixed during the spring vacation so as to allow the attendance of as many teachers as possible, and the meetings of the Academy and the Schoolmasters' Club will overlap for one day, April 2, the Academy program for at least one session on that day being so arranged as to be of special interest to teachers of science. The fact that this meeting is to be held in the midst of the resources of one of the largest universities of the United States should of itself draw out a full attendance.

The Academy is now in the third year of its existence, and hitherto has contended with many unfavorable conditions in its growth toward a position of recognized scientific authority in the state. Its growth in this direction, if slow, nevertheless has been sure, and it appears now to be entering on an era of influence and usefulness which shall verify the anticipations of its founders. It needs, however, the earnest support and interest of every scientist in the state, whether professional or amateur, and it is hoped that every such person in the state will at once ally himself with the organization and work toward the accomplishment of the grand ends in view. The Academy now has about 150 members, and this number should be largely increased during the coming year. The requirements for membership are very simple, and application blanks can always be had from the secretary of the Academy, Agricultural College, Mich.

At a recent meeting of the council at Jackson the objects of the Michigan Academy of Science were summarized as follows:

1. To afford opportunities for representatives of the various sciences in the different parts of the state to meet one another socially; to discuss plans for the advancement of the interests of their sciences and to secure the co-operation of all scientific workers and local associations in the state.

2. To promote in every possible way, as a representative scientific body, any project for the furtherance of the interests of science within the state.

3. To secure, at as early a date as possible, the initiation of biological and other scientific surveys of this state, and to encourage individual and associated effort toward the same end.

4. To stimulate the discussion of the aims and methods of science teaching, with the purpose of unifying and improving the practice of teachers of science in the schools and colleges of the state.

The coming meeting at Ann Arbor will be devoted largely to the presentation and discussion of scientific papers, many of which, however, are sure to be of general interest, and to all these meetings the public is cordially invited. A second notice, with announcements as to railroads, hotels, exact place of meeting, etc., will be issued later, and copies will be sent to anyone interested.

WALTER B. BARROWS,
Secy. Mich. Acad. Science.

The first day called up gravest fears
that made me nervous hearted;
The next day called up memories of
friends from whom I'd parted;
The third day called up thoughts of
land, where one is safely carted;
The fourth day called up everything
I'd eaten since I started.

—Philadelphia American.

"Jack Frost."

A. M. PATRIARCHE, '98.

[Read before the Olympic Society.
February 5, 1897.]

Ha, ha! Ho, ho!
Mid the flying snow
Jack Frost, that fellow
Whom most people know,
Came speeding from his throne in the
North.

Ha, ha! Ho, ho!
"Oh where shall I go
With my piercing winds
And tumbling snow,
O where shall I take them now?"

"Ha, ha! Ho, ho!
To America I'll go;
She has long been under
A southern blow.
O, there's where I'll take my frost."

Ha, ha! Ho, ho!
He was not a bit slow,
And soon to our country
He came with his blow,
And Nature grew stiff in his grasp.

Ha, ha! Ho, ho!
He flings the snow
From the sky above
To the earth below,
And soon Nature is dressed in white.

He calls to Boreas,
"O blow! O blow!
Lend me your aid,
Heap up the snow."
And Nature was stunned by the cold.

"Ha, ha! Ho, ho!
Old Boreas blow,
Let Nature enjoy
My falling snow,
Blow it right into her face.

"Ha, ha! Ho, ho!
She'll no longer grow,
She is frozen up tight,
Now let us go
Back to our homes in the North."

"But Ha, ha! Ho, ho!"
Said the sun in a glow,
"As it emerged from the clouds
And melted the snow,
You have not frozen me, Jack Frost."

"Ah, no! Not so!
Nature will grow,
And I'll clothe her in green
In spite of your snow,
For see, it is melting now."

"Ha, ha! Ho, ho!
Methinks I'll go,
Return to the Pole
And the Esquimaux,
And there continue my work."

"Then blow! O blow!
Ye south winds blow,"
Called the Sun in the heavens,
As she shone on the snow,
"O blow and help Nature spring
forth."

Then low, soft and low,
The south winds blow,
And Nature throws off
Her garment of snow
And puts on her summer attire.

Ha, ha! Ho, ho!
Comes the far echo
From the icy North,
The land of snow,
Jack Frost is back on his throne.

More Explanation.

"Lost people, they say, always walk
in circles."
"What's that for, I wonder?"
"So that rescue parties can get onto
their curves, I suppose."—Chicago
Record.

Official Directory.

Sunday Chapel Service—Preaching
at 2:30 p. m.

Y. M. C. A.—Holds regular meetings
every Thursday evening at 6:30 and
Sunday evenings at 7:30. S. H. Ful-
ton, President. C. W. Loomis, Cor.
Secretary.

Y. W. C. A. regular weekly meetings
for all ladies on the campus Tuesday
evenings at 8 o'clock, in the ladies' par-
lors. Meetings on Sunday evenings
with the Y. M. C. A.; Miss Edith F.
McDermott, President; Miss Alice
Georgia, Cor. Secretary.

Natural History Society—Regular
meeting second Friday evening of each
month in the chapel at 7:00. H. C.
Skeels, President. W. R. Kedzie, Sec-
retary.

Botanical Club—Meets first and third
Friday of each month in the Botanical
Laboratory at 6:30. T. Gunson, Presi-
dent. W. R. Kedzie, Secretary.

Shakespeare Club—Meets every
Wednesday evening. Dr. Howard Ed-
wards, President.

M. A. C. Athletic Association—C. B.
Laitner, President. G. B. Wells, Sec-
retary.

Columbian Literary Society—Regular
meeting every Saturday evening in
their rooms in the middle ward of
Wells Hall, at 7:00. T. A. Chittenden,
President. A. J. Weeks, Secretary.

Eclectic Society—Meets on fourth
floor of Williams Hall every Saturday
at 7:30 p. m. D. C. McElroy, Presi-
dent; T. H. Libbey, Secretary.

Feronian Society—Meets every Fri-
day afternoon at 1:00 in Hesperian
rooms. Miss Pearl Kedzie, President.
Miss Hattie Chase, Secretary.

Hesperian Society—Meetings held
every Saturday evening in the society
rooms in the west ward of Wells Hall
at 7:00. A. T. Cartland, President. D.
E. Hoag, Secretary.

Olympic Society—Meets on fourth
floor of Williams Hall every Saturday
evening at 7:00. W. R. Goodwin, Presi-
dent. E. R. Russell, Secretary.

Phi Delta Theta Fraternity—Meets
on Friday evening in chapter rooms in
Wells Hall, at 7:00. H. A. Hagadorn,
President. C. M. Krentel, Secretary.

Union Literary Society—Meetings
held in their hall every Saturday
evening at 7:00. G. A. Parker, Presi-
dent. A. E. Wallace, Secretary.

Tau Beta Pi Fraternity—Meets every
two weeks on Thursday evening in the
tower room of Mechanical Laboratory.
G. A. Parker, President. E. H. Sedg-
wick, Secretary.

Club Boarding Association—I. L.
Simmons, President. H. A. Dibble,
Secretary.

Try and Trust Circle of King's
Daughters—Meets every alternate
Wednesday. Mrs. C. L. Weil, Presi-
dent. Mrs. J. L. Snyder, Secretary.

M. A. C.

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News from Graduates and Students.

George J. Jenks, '89, Sand Beach, was in the city last week.

Geo. W. Davis, '92, sends us the note regarding Sylvester Scovel.

J. D. Towar, '85, is lecturer of the Rhode Island State Grange.

Prof. B. W. Peet, '92, of Grand Rapids, spent Sunday at M. A. C.

Clarence J. Combs, with '96, was elected treasurer of the junior medics at Ann Arbor last week.

Royal C. Fisher, '95, has the nomination for county school commissioner in Oceana county on the republican ticket.

H. E. Ward, '95, is at the U. of M. and rooms at the same place that Cummings and McElroy are staying. 51 Packard street.

Prin. Masselink ['95] of Cass City is a hustler. The Tuscola County Lecture Course in that town has a patronage of fully 400.—*Moderator*.

The current number of *Garden and Forest* contains a contribution by Prof. U. P. Hedrick, '93, on Paradise Valley, situated on Mount Ranier.

W. H. Marsh, '98, is spending the winter at his home in Baroda, Mich. He expects to be able to return to the College again in the near future.

P. S. Rose, with '96m, writes that he is enjoying his school work at Old Mission, and that he will return next September to remain until he graduates.

A. R. Rogers, with '97, Lime Creek, Mich., says of the RECORD: "The little sheet brings many pleasant memories to mind and at the same time contains much valuable information."

F. H. Hall, '88, and H. B. Cannon, '88, who took the civil service examination for librarian and editor of the experiment station at Geneva, N. Y., were among the four candidates who were found eligible.

Prof. James Troop, '78, secretary of the Indiana State Horticultural Society, is given unstinted praise by the *Michigan Fruit Grower and Practical Farmer* for his work on the 36th annual report of the society.

D. W. Trine, '92, assistant botanist in the Oregon Agricultural College, says: "Oregon is a paradise, but at present there are too many Adams in it. The 'apple,' however, is not the tempting fruit, but political offices instead."

Clay Tallman, '95, received the nomination for school commissioner in Ionia county on the democratic ticket. He is running against E. B. Hale, '93, who has held that office during the past two years with good success and credit to himself and his county.

Hon. Charles W. Garfield, '70, is president of the Practical Farmer Co., publishers of the *Michigan Fruit Grower and Practical Farmer*. Calvin C. Lillie, '84, is vice president of the company and dairy and stock editor of the paper. The issue of Feb. 5, contains a good cut and write up of the College library.

W. H. Goss, '82, Bangor, who was mentioned in the issue of Jan. 26 as the newly-elected president of the Van Buren County Farmers' Institute Association, says that through the RECORD he has learned more of the workings of the College during the last year than he had previously in all the time since he left in '82.

Prof. Hedrick has made a discovery in microscopy, but he does not seem inclined to make any noisy demonstration over so important an occurrence. He told us at the lecture the

other evening, in a very incidental way, that he could make a cross section of a plant in three different directions.—*The College Barometer*, Corvallis, Oregon.

One of the Veitchian silver medals has been presented to Prof. Liberty H. Bailey, '82, this year, in recognition of his efforts, by means of his lectures and his writings, to place the cultivation of plants on a scientific basis; to promote the extension of horticultural education; and, by numerous trials and experiments, to improve and render more productive plants grown for economic purposes.

From Oregon papers we learn that Hon. E. R. Lake, '85, at one time instructor in botany, has taken a conspicuous part in helping to organize the house of representatives, which had been temporarily in the hands of a minority of populists. A large cut appears with these words below: "Representative Lake of Lincoln. Lake is one of the most popular men on the floor of the house. He is one of the fighters, and his desk, during lulls, is always surrounded by men from every part of the state."

Encyclopedia of American Horticulture.

An important announcement by the MacMillan company of New York is the publication of an encyclopedia of American horticulture, in three volumes, dated 1900. Prof. L. H. Bailey of Cornell University has undertaken the editorial oversight of the work, which will contain signed articles by specialists, arranged alphabetically, on all subjects relating to the cultivation of plants out of doors and under glass.

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