THE FORCING HOUSES.

PROF. L. R. TAFT.

The College forcing houses, illustrated in this issue, were erected in 1889. They are two in number, each 50 by 20 feet, and are built with an even span roof. The work was done under Mr. Gunson, and our thanks are due to him and to the students with tables for sixteen students. In the basement are two beeans, one steam and the other hot water, and bins for the storage of coal and potting soil.

In the construction of the houses an attempt was made to illustrate the methods in vogue at the time and to test various others. The walls were built of great (cobble stones, gravel and cement) to a height of two and one-half feet, and above this wooden walls two feet high were constructed. The outside soil was graded to the top of the great wall, and thus we secured a substantial wall underground that is not likely to decay. Various methods of laying the glass and several forms of glassing points andMode were tested. Four different machines for lifting the ventilating each have been tried, and for three winters we have carried on a comparative test of the merits of steam and hot water for heating houses of this size. The results have uniformly been in favor of hot water, both in the economy of fuel and in the regularity of the temperature secured.

Although called "forcing houses," they are not primarily intended for the forcing of winter flowers or vegetables, but rather for the starting of vegetable plants for the gardens, and for a few months of practical work in this line to the students. While not adapted for growing vegetables in the winter we have each year used them for this purpose, and at different times have forced lettuce, radishes, beets, parsnips, cucumbers, rhubarb and mushrooms besides such flowers as roses, chrysanthemums, violets and smilax.

During the past winter the following have been used in the forcing houses: The beans were early in October filled with green tomatoes that had not ripened and were placed in the cellar where they were allowed to remain fresh and vigorous. Later in the season, when the vines were killed by the frost; after these had worked a week, the above varieties, except the tomato, were killed entirely by frost early in September before any of them had ripened, as that is on the loam. The experiment included variety tests and methods of growing, each containing the plots in the College on the farm, the garden or in the following:

Beans—Varieties and Culture.

BY ELIZABETH HAW.

This experiment was designed to be carried on in triplicate on sand, loam and soil. The plots on each kind of soil were planted to test different methods of growing, each containing the plots in the College on the farm, the garden or in the following:

Horticultural Department.

STUDENT EXPERIMENTS.

(Proceed with due regard to the experiments in the College on the farm, the garden or in the following:

Beans—Varieties and Culture.

The varieties above mentioned are all standard market sorts and may be briefly described as follows:

Schofield or Pen.—This is the smallest and earliest of the five varieties tested and brings the highest price in the market. The beans in our samples were of a brighter color than any of the others.

Navy or Medium.—As early as the Schofield. A very productive standard variety. The beans are a little larger than in the above sort but of about the same shape.

Produce Tee.—A new variety, differing but slightly from the above. Apparently a little later and the beans possibly a trifle larger. It has nothing in the habit of growth to suggest the name "Tree" more than other bush sorts.

White Marrow.—A large, oval bean, ripening late, with tall, stout vines and comparatively few pods. Its beans split more than those of other varieties.

White Kidney.—Still later than the above. Beans almost twice as large as the last. An old and excellent variety, still popular in some markets.

A Weed Experiment.

BY H. A. DUBBLE.

Two plots of corn, of 110 hills each, were treated alike except as to cultivation. One plot was given good cultivation in both directions and kept entirely free from weeds, using the hoe when necessary. The other plot was cultivated in but one direction and not hoed, growing the weeds to grow in the rows. The woods which appeared were pigweed grass and a few pig- weeds. During July there was a marked difference in the growth of the corn on the ten plots, thus containing the weeds being the smaller and curling badly from the effect of growth, while the corn on the other plot was fresh and vigorous. In the fall, after the August rains came, there was less apparent difference between the plots. In October the stalks and corn on each plot were weighed, and also the weeds on the weekly plot, with the following result:

<table>
<thead>
<tr>
<th>Weed</th>
<th>Pounds of ears</th>
<th>Pounds of pods</th>
<th>Total</th>
<th>Pounds per Acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weed A</td>
<td>377</td>
<td>218</td>
<td>595</td>
<td>55.0</td>
</tr>
<tr>
<td>Weed B</td>
<td>211</td>
<td>183</td>
<td>394</td>
<td>43.0</td>
</tr>
</tbody>
</table>

*This plot was under the care of the students in the College on the farm, the garden or in the following:
THE M. A. C. RECORD.

MARCH 21, 1896.

OMOHERS REGARD THE INSTITUTES.

The following letter just received tells its own story: "I have had it in my mind ever since the Institute at South Haven to write you to tell yourself and the others of the Pacific how well I (and others of my neighbors) was pleased. I considered it a real feast and a rare treat, and we hope they may be continued. It would be a pleasure to the public, for the people were awake to it. After they had come one day and saw what they were missing they came regularly afterward.

"Very respectfully,

J. C. J.

REGULATIONS FOR COMMENCEMENT EXERCISES.

The following regulations adopted by the board last year are important just at this time:

1. Of the dates fixed for the spring term, the faculty shall proceed to elect speakers for commencement day. These shall consist of some person of national reputation or some member of the senior class from the agricultural course and the other from the mechanical course. Said students shall be chosen on the basis of proficiency along the lines of education emphasized by the work of the respective courses.

2. The speaker for 1896 shall be some man whose work is more or less closely connected with agriculture or horticulture. It is expected that Mr. J. R. Simms of Michigan, Baker of the Lansing Iron Works, and W. M. Smith of the Lansing Telephone Exchange.

3. Mr. Crosier has been planting a lot of chinakins, heavy sorts, with different kinds of snows in the woods east of No. 7. The nuts were gathered and stored last fall by Dr. Beal.

4. Prof. and Mrs. Holdworth were given a candy pull by Prof. and Mrs. Woodworth last Friday evening.

5. Fred Simms and Fred, with me and others present, are at the grocery store tomorrow afternoon, in charge to take care of the details for the grand oration work of the College courses; provided, however, see no good reason for materially changing our usual procedure.

6. The speaker for 1895 shall be some man whose work is more or less connected with the College, and not connected with the College, shall determine the awarding of the medals.

a small boy of about twelve summers, from the Indus- ter School.

THE AGRICULTURAL COLLEGE.

Business Office with ROBERT SMITH & Co., State Printers and Binders, Lansing, Mich., to be for all time kept together—a monument, as it were, to the old students.

In 1894 there was organized a society in each class of the young men now in college and to those who may come in future years; while to the many strangers who visit us, I am sure it will be a pleasant testimonial of good results, to which the college would point with pride.

An average standing of eight on the English studies of the first two years of the college this spring term, and the name of the representative chosen for the society or fraternity of each participant. Said society or fraternity of each participant. Said students shall be chosen on the basis of proficiency along the lines of education emphasized by the work of the representative course.

The faculty or the oration work of the College courses; provided, however, see no good reason for materially changing our usual procedure.
organized much more thoroughly and completely than that we should send smaller corps of workers; third, has it, and has not thought of it. The long institute is other states, especially in Indiana and Wisconsin, college...ector system from Wisconsin, but by compromising...um. Of course this is partly due to...hich develops local talent... special sessions.

Latta, M. A. C. '77, and Troop, '78; also T. B. Terry...leaders in the long course. At Purdue Prof. Latta is handicapped by the... of Brownsboro are busy on the farm at the world's fair; and the whole list of institute workers employed in Wisconsin—all of them pleasant men to meet. Such one and King and Mr. John J. Shawyer of Ohio, horticultural editor of the... of Miss Lizzie O'Connor, with '93. They will leave at... at Olivet College.

Supt. D. D. McArthur, '94, of the Omaha Indian...s The Fort Wayne Medical Magazine, of which Dr. A. G. Goodrich, is...re G. C. Davis, M. C., is secretary of the section on entomology. A. C., is secretary of the section on entomology.

Horticulture at Cornell.

I visited the Ohio State University, Purdue University, and the University of Wisconsin, and noted especially the work done in agriculture. I was surprised and pleased to see the work at the agricultural institutes. There are about 100 students in agriculture, some 20 or 30 of them being in the long course, and several in the short course. This course is so arranged that a short course, which is a two year course, leads on to the long course; students can enter in the junior course and then get credit for their work in the long course. I was informed that this is being done very freely. Most of those who finish the short course go to work on the farm, and I was told that five out of the seven that graduate this year go to the farm. Prof. Hunt is bringing his department to the front, and is apparently winning the favor of the farmers. I have been impressed with the overpowering demand for technical instruction in mechanical lines, yet they have a special winter course of about 40 students, and there are a few in the long course. At Madison Prof. Henry has succeeded in building up a special course to good advantage. This year there are nearly 200 students in the special course, although only three or four in the long course. The special course consists of two winters of three months each, the students being on the staff a second year's work. The remaining special course students are dairy students. After visiting these institutes I came away with the conviction that the College of Agriculture has an enormous advantage in regard to agricultural education. As one professor remarked to me, "We are looking to the Michigan Agricultural College to solve the problem of agricultural education." We are looking to the plant and we have the record. When we were discussing at the international gathering the matter of local talon, I was pleased to find that we have a young man with a little practical work, would make first class workers. This seemed to startle many present, but I do not think I exaggerated. Indeed, I believe I would name 20 or 30 off hand who are graduates of the Agricultural Colleges and on Michigan farms who would come under this category. In fact, the number of states visited was not as much said as so much said. In Wisconsin a good many of the special course men are making good records, showing the value of even a little leaven. On the other hand I was impressed with the failure of our college students to win laurels; the impression seemed to be that for a few years past it has been resting on its oars. Men at other institutions in the same state wish that we should push agricultural work in the direction of the front, and if we are to retain the position so proudly held for many years, I am free to say it will require considerable; much of our work is not in the special course work done at these institutions, but I can easily see such work can be overdone. I hope to see more special course work at our institutions, but I trust that they will be under freedom at the same time.

One of the pleasantest and most profitable results of my trip was the formation of acquaintances of splendid men. I was especially impressed with Mr. Latta, one of the most eloquent speakers; Prof. Gibb. assistant in the Agricultural Experiment Station; Mr. Burkett, superintendent of the University farm; Prof. Webster, entomologist of the experiment station, and Walter F. Brown. In Indiana I met Prof. Latta, M. A. C. '77, and Troop, '78; also T. B. Terry whom everybody knows and whose acquaintance I enjoyed exceedingly and saw. I have been very glad to hear that my father's farm. Now that ought to be changed somewhat, for since March 5th he hasn't done a thing but sing: 'Howl! be still as any mouse—There's a baby in my house—Not a dolly, not a boy—but a laughing raven bow'd behind.'

Very truly yours,

W. G. Surrin, '93.

MARCH 31, 1896.

At a special meeting of the stockholders of the Practical Farmer Company, publishers of the Practical Farmer and Fruit Grower, yesterday, the following resolutions were adopted: That the Board of Directors, C. Lillia, George M. Zallner, Mrs. C. A. French and C. A. French. The directors then elected Charles W. Gar­

and the origination of new and improved varieties. The advice is based upon the principles outlined in the two previous lectures, and is clearly expressed and entirely practical.

Lecture IV is made up of "Borrowed Opinions." It includes extracts from the writings of Verlot, Carrieri and Poche, upon the subjects of variation in plants, crossing, and hybridization.

The art of pollination is explained in the fifth lecture. It describes the structure of several of our common flowers and shows the manner in which they are prepared for pollination.

The book is published by Macmillan & Co. as one of the Garden-Craft Series. It is nicely illustrated and in every way a credit to the publishers as well as to the author.

SCHEDULE OF BASE BALL GAMES.

Base ball manager, G. F. Herrman, has scheduled the following games for the season of 1896:

April 4, M. A. C. with C. F. M. at Ann Arbor.
April 6, M. A. C. with Hillsdale at Hillsdale.
April 10, M. A. C. with Albion at M. A. C.
April 21, M. A. C. with Michigan Military Academy at M. A. C.
April 27, M. A. C. with Olivet at M. A. C.
May 3, M. A. C. with Kalamazoo at Kalamazoo.
May 9, M. A. C. with Kalamazoo at M. A. C.
May 11, M. A. C. with Hillsdale at M. A. C.
May 16, M. A. C. with Albion at Albion.
May 18, M. A. C. with Olivet at Olivet.
May 19, M. A. C. with Michigan Military Academy at Orchard Lake.
May 20, M. A. C. with Bay City at M. A. C.
May 30.
June 1, M. A. C. with Olivet at M. A. C.

It will be seen that there are but two open dates, May 19 and 30. There have been three games arranged for the May vacation, and there is one vacation date, May 19, yet to fill. A game is also wanted with some good college team for Decoration Day.

College Lands

There are some

Fine Timbered

and Farming Lands

Belonging to the Agricultural College which have lately been put ON THE MARKET

They are Located in the Counties of

Manistee, Wexford, Benzie, Antrim, Kalkaska, Missaukee, Charlevoix, Osage, Cheboygan

And a fine tract in Montmorency County will also be on sale very soon. Many of these lands are covered with

Nice Hardwood Timber

And a large portion of them are

GOOD FARMING LANDS

Portions are within short distance of thriving towns and near railroad stations. They have lately been viewed by an agent of the board, and minute descriptions of timber, location and soil are on file in the office of the State Land Commissioner. People desiring to purchase such lands will find prices, terms and descriptions in the State Land Office.

Full descriptions of these Lands will be Printed in Succeeding Issues of THE Record.

FOR SALE

2 Registered Shorthorn Bull Calves.

One red, calved July 13, 1895, sired by the famous Craglebank Bull, owner, Tempest, 81965. Born College of Medicine 8th, tracing to Imported Misty 565.

1 Red Polled Bull Calf, sired by Jan, Church, born Jan., 1896. A deep red, calved July 7, 1895.

1 Bolstein Bull Calf, A white and black calf, sired Maurice Cowie, 5958, dam College Pauline Warner, 5099, born Feb. 10, 1896. (See pages 32 and 21 of Bulletin 121) will also be

ALSO 10 SHROPSHIRE RAM LAMBS

All stock which in not Registered in Shropshire.

Is Your Education Complete?

HAVE You that broad and liberal preparation which is so essential to the successful and enjoyable prosecution of your life's work?

GRADUATES OF HIGH SCHOOLS

May enter the Freshman class without further examination. Those who have finished the EIGHTH GRADE work are prepared to pass the required examination, while those who have finished the ninth grade work are better prepared for admission to M. A. C.

The course embraces all that you have learned in your previous school days but goes far deeper.

IN OUR FINELY EQUIPPED LABORATORIES

The Natural Sciences

CHEMISTRY

PHYSICS

BOTANY

AND MATHEMATICS

Are taught with special reference to Agriculture and the every day affairs of life.

FOR CATALOGUE ADDRESS,

"THE SECRETARY,"

Agricultural College, Michigan.