

An Agricultural Education.

GUY ELLIOTT MITCHELL.

The following interesting account of the life work of Edgar J. Hollister is sketched by Mrs. Grannis, who has had the opportunity of personally observing some of the results of his wonderful activity.

Hollister proceeded upon the theory that, climatic conditions being equal, certain crops are adapted to certain soils, and that planting those which will bring the greatest revenue will enhance the value of the land.

Through Toil to Triumph.

It is a far cry from a Canadian farmer boy in the sixties to the Dean of Agriculture to-day in a rising institution in the West, yet, by the application of science to practical farming, such a change has been wrought by Edgar J. Hollister, a soil expert of wide reputation.

No agricultural college opened its friendly doors to this young pioneer, nor was the Canadian government so deeply interested at that time as now, in its farming population.

A call from western Ontario, his birth place, came in 1873 and in response, some time was spent in setting out peach orchards, the work losing its irksomeness because of the study which accompanied it.



DEAN E. J. HOLLISTER.

He was taught the economical use of water and the method of creating a favorable environment for plants. A visit was made to Maryland, where experiments with soil and plant life added still further to the experimenter's fund of knowledge.

SLOW PROCESS OF NATURE.

In some instances five years is the period allowed for the reclamation of land by the slow process of nature after the drainage has been obtained. Even then these lands may fail to produce paying crops, because of their deficiency in essential elements such as lime, potash, phosphoric acid and magnesia.

In spite of this, Mr. Hollister had sufficient knowledge, gained experimentally, to suggest success, added to which, the further information gained during a four years' residence in Washington, D. C., for the express purpose of consultation and cooperation with the experts of the Department of Agriculture.

To make these lands productive immediately after drainage, it is necessary to correct their acid condition by the use of lime and by disintegration of the soil particles, thereby increasing their powers to retain water and absorb oxygen.

a crop of corn sown broadcast. The corn was plowed down in the fall and the seed lot planted in rye. It will be seen that in this process nature was being assisted by moisture and sunlight to change sand into rye and corn stalks.

The work of this interesting man attracted the attention of many people pursuing scientific agriculture, among whom was H. J. Heinz, the pickle manufacturer—57 kinds—who is interested not only in the culture of the vegetable kingdom but in the "art and growth of boys, and through his activity Mr. Hollister was elected Dean of Agriculture at the Agricultural Institute of Winona Lake, Indiana.

EDUCATING FOR SMALL FARMS.

A plan is now taking tangible form, which will lead to the establishment of small farms comprising five to twenty acres each. On these farms young men will be taught combined scientific and practical agriculture. They will also demonstrate the possibility of getting an income and genuine happiness from their investments which may well be envied by the salaried man or the man of moderate capital in the city.

Mr. Hollister is also directing a work of reclamation of a large tract of salt meadow on the Connecticut coast which, when reclaimed, will be used for the purpose of intensive farming, thereby firmly establishing the fact that these lands may be used to furnish employment and bring wealth and happiness to the people.

Value of Alfalfa to Farm Animals.

The Bureau of Animal Industry of the Department of Agriculture has recently published a study by I. D. Graham of the use of alfalfa for the growing and fattening of animals in the Great Plains region. The results attained by experiments, while of inestimable value to live stock growers in the region mentioned, may well be

hay for pigs, it is considered better to cut it early, so that a larger proportion of leaves may be saved and consequently a larger proportion of protein conserved. While late cutting, after the leaves have fallen somewhat and the stem hardened, is better for horses; for pigs, especially growing pigs, the crop should be so harvested as to save the largest number of leaves.

The Irish Potato.

A rich, sandy loam is best suited to the production of Irish potatoes, and the fertilizers employed should contain high percentage of potash. The main crop of Irish potatoes for family use should be grown elsewhere, but a small area of early ones properly belongs in the garden.

In a recent bulletin on farm vegetables, the department of Agriculture recommends that for late potatoes, the rows should be 2 1/2 to 3 feet apart, and the hills 14 to 18 inches apart in the rows. Lay off the rows with a one-horse plow or lister, and drop the seed, one or two pieces in a place, in the bottom of the furrow.

As soon as the plants appear above the ground and the rows can be followed, the surface soil should be well stirred by means of one of the heavy-toothed cultivators. Good cultivation should be maintained throughout the growing season, with occasional hand hoeing, if necessary, to keep the ground free from weeds.



STUDENTS CLEANING OUT A DRAIN AT WINONA.

considered by stockmen in other sections. Some of the questions considered in the experiments were the composition and digestibility of alfalfa, the calculated cost of nutrients supplied by alfalfa and other feeding stuffs.

Finely ground, kiln-dried alfalfa hay, called alfalfa meal, has given satisfactory results as feeding stuff. The commercial article is made from selected alfalfa and mixed with sugar-beet molasses in the proportion of 75 per cent. alfalfa and 25 per cent. molasses.

Horses and mules, it is stated, thrive on alfalfa pasture, and while alfalfa is too rich a food for mature horses unless used in combination with some other roughness, it is an excellent feed for young ones, as it seems to contain just the elements necessary to develop bone muscle, and consequent size. Caution should be used, however, in feeding alfalfa to horses, particularly if they have not been accustomed to it.

When alfalfa is fed to horses in considerable quantity the grain ration must be proportionately reduced and an abundance of other roughness furnished. When horses have attained a mature age and it is desirable to change from other hay to alfalfa, this change must be very gradual, and the alfalfa selected for this purpose should be more advanced in growth at the time of cutting than that which is to be fed to cattle or sheep.

After digging the potatoes, they should never be allowed to be exposed to the sun, or to any light while in storage, as they soon become green and unfit for table use.

A thousand bushels of potatoes have been raised on one acre. How many farmers, who chance to read this, have raised 200 bushels on an equal plot? And there are some who can not grow 100 bushels on their acre.

There were about one million deaths in India from plague last year. A set of Scottish bag-pipes costs from \$25 to \$250. Japanese Jiriki-shas are being established in the principal cities of eastern Asia.

There are 4,537 textile factories in Japan. The national debt of France is \$150 a head.

Mary was Discused. Mary had a swarm of bees. And they, to save their lives, Must go wherever Mary went—'Cause Mary had the 'hives.'

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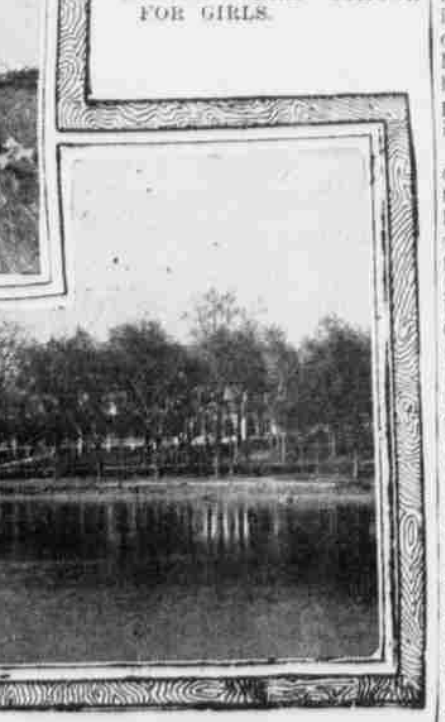
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trogen, phosphoric acid, potash and phosphoric acid and make them available as plant food. Mr. Hollister visited Florida and secured a tract of land which for five years was used experimentally. Although he was in one case much handicapped by inadequate drainage, which it was not found practical to improve, the results were, however, very satisfactory.

WINONA BOYS SELECTING WHEAT FOR SEED.



strands of the productivity of the lands under applied science. MAKING SEA LAND PRODUCE. Another equally successful experiment was conducted by this "Wizard of the Soil" on this same tract, viz., the transforming of a five-acre tract of sea sand to a loamy condition. The soil was first treated with chemical fertilizers and in the fall rye was sown, which covered the ground in winter and made a full growth the following spring. This crop was plowed under in June and followed by