

## A Disc Harrow for the Fruit Grower

THE MASSEY-HARRIS ORCHARD DISC HARROW is indispensable for orchard and vineyard work, it being especially designed for fruit culture, and is also useful for general discing about the small farm.

An Extension Frame can be furnished enabling this Disc Harrow to cultivate under and close to the trees and bushes without the horses injuring the branches or fruit. The depth of cultivation may be regulated by adjusting the hinge which attach the disc gangs to the frames

Gangs are reversible so as to throw the soil to or from the trees and vines, and can be set to cut deep or shallow in the centre, as desired.

One lever controls the angle of each gang, thus regulating the amount of soil thrown to the roots.

The Massey-Harris is fitted with ten 16-inch Discs and effective Scrapers are provided for keeping the Discs clean.

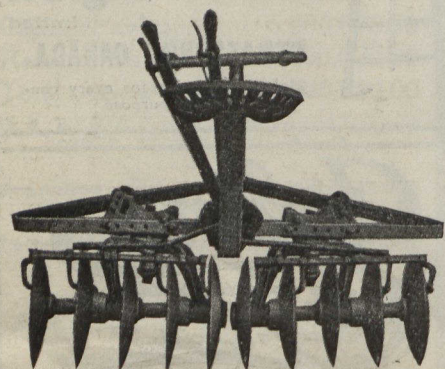
Extra Discs with Spools can be furnished for converting the machines into a twelve disc size.

The Harrow with ten Discs cuts 5 feet and 6 inches, and when the Extension Frame is used the machine measures 10 feet and 1 inch in width.

## Massey-Harris Co., Limited

Head Offices - TORONTO

Branches at Montreal, Moncton, Winnipeg, Regina, Saskatoon, Calgary, Edmonton



paratively little cost, as most of them are already fairly well insulated. Where there are two or more warehouses in a locality it would be quite practicable to operate them all from a central refrigerating plant with a pipe line system connecting with each warehouse. This plan could be carried out at places like Brighton and Colborne on Lake Ontario, and at many stations on the Dominion Atlantic Railway in Nova Scotia. It would be very economical both in the matter of equipment and operation.

It has always seemed to me since I have been able to give any attention to such matters that small cold storages using ice, or, better still, salt and ice as a refrigerant, would be of much service to individual growers, and especially in the tender fruit districts.

### Recent Publications

A number of interesting and valuable publications have reached THE CANADIAN HORTICULTURIST during the past month. "Vegetable Gardening," by Ralph L. Watts, Prof. of Horticulture, in the Pennsylvania State College, is one of the most complete works dealing with this subject we have yet seen. It is written with a twofold purpose, first to meet the demand of instructors desiring a text-book on vegetable gardening, and, second, to present in an organized form data of value to all classes of vegetable growers. The work relates to the culture rather than the systematic study of vegetables, although some attention is given to a description and classification of the more important garden crops. The subjects dealt with include soil, tillage and tillage tools, manures and cover crops, commercial fertilizers, irrigation, insects and diseases, seeds and seed growing, hot beds and cold frames, transplanting, cultural directions and marketing. The book comprises over five hundred pages, is profusely illustrated and may be obtained from the Orange Judd Company through The Horticultural Publishing Co., Peterboro, Ont.

"Oxford Gardens," by R. T. Gunther, M.A., Fellow of Magdalen College, Oxford, is a beautifully bound, well-illustrated volume of almost three hundred pages. Its contents are based upon Daubeny's Popular Guide to the Physick Garden of Oxford, with notes on the gardens of the colleges and on the University Park. This volume may be obtained from Simpkin, Marshall and Company, of London, England.

Bulletin No. 99, of the University of Missouri, Columbia, Missouri, deals with the inspection of commercial fertilizers. Bulletin 98, of the same college, is entitled "San Jose Scale in Missouri." It is illustrated and contains valuable information concerning the character and control of this pest.

The Department of Agriculture of the Province of Quebec has issued the report of the Experimental Fruit Stations of the province for 1911. The report is by Auguste Dupuis, Director of Fruit Stations, and includes reports from the substations throughout the province. The report shows that considerable good work is being done by the fruit stations in Quebec.

The Dominion Department of Agriculture has issued a bound volume containing Bulletins 21 to 30 of the Dairy and Cold Storage Commissioner's series, being volume two, 1907 to 1911. It contains the reports on the trial shipments of cold storage apples and peaches and the Inspection and Sale Act, revised edition.

The making of grape vinegar is discussed by Frederic T. Bioletti in Bulletin No. 237

of the Agricultural Experiment Station, Berkeley, California.

From the Agricultural Experiment Station at Ames, Iowa, has been received Bulletin No. 127, entitled "Spraying Practice for Orchard and Garden," by S. A. Beach.

The use of explosives in clearing land is dealt with at considerable length by J. F. Kadonsky, in Bulletin No. 216, of the University of Wisconsin, Madison, Wisconsin.

New control methods for pear thrips and peach tree borer are described by Earl L. Morris, in Bulletin No. 228, of the Agricultural Experiment Station at Berkeley, California.

The division of botany of the Central Experimental Farm, Ottawa, is distributing Bulletin No. 63, by H. T. Gussow, Dominion Botanist, entitled "A Serious Potato Disease Occurring in Newfoundland." The disease is the potato canker, which has caused enormous damage in Europe. Canadian growers are warned to be on the watch for its appearance in Canada.

The University Farm, St. Paul, Minn., has issued extension bulletins 22 and 23. The first is entitled "Establishing the Orchard," and is by K. A. Kirkpatrick. The second deals with "Some Common Insects and Their Control." It is compiled from "Insect Life," by F. L. Washburn, State Entomologist, and Warren Williamson.

The German Potash Syndicate, of Toronto, is distributing a well-illustrated pamphlet by T. Walter Shipley, entitled "Fertilizing Fodder Crops." Among other useful information it gives tabulated results of fertilizer experiments with fodder crops, showing calculated profits.

### The Thinning of Fruit

(Concluded from page 161)

ing. On slender twigs and on wood of the past season's growth (where many varieties bear heavily in British Columbia), it is well to thin to a greater distance than on strong fruit spurs in the body of the tree. On the outside twigs and shoots, the fruit will average smaller than on the stouter branches; they are unable to grow a close crop of fruit to perfection.

A very important point, especially with regard to the Yellow Newtown apple, is that the centre apple of the cluster and not one of the side apples, should remain. The centre blossom of the cluster comes out first; its stem is usually shorter and stockier than those of the outside blossoms, and at the time of thinning the apple is usually much larger than the others and on a shorter stem. The centre apple usually hangs better to the tree, is the typical apple of the variety, is less liable to variation in shape, and having a shorter stem is better for packing and for appearance's sake.

Fruit spurs vary greatly in size and vitality; the best spurs bear the best fruit; the weaker spurs should be given a chance to develop into strong ones before next year's crop.

In the production of fancy fruit, thinning pays, and pays well. It means much in the assurance of crops of only higher-class fruit. It is not likely to be of value unless the orchard is right in the matters of variety, fertility, cultivation, pruning, and spraying; it is not likely to give good returns unless the high-class article produced is properly packed and marketed by business-like methods. Thinning is an essential feature of the new orchard culture.

I am much pleased with THE CANADIAN HORTICULTURIST and would not be without it for twice the cost.—P. E. Smith, Roxham, Que.