

Horticultural Convention.

We observe that there is a move on hand by some of the leading horticulturists of the Dominion, to hold a convention at Montreal on the second week of next January, for the purpose of discussing general horticulture, including fruit growing and forestry. As this convention will be composed only of practical men from all parts of Canada, it is to be hoped that they will get from the Dominion government the small grant of \$1,000 which they have applied for. In return for this, they offer the government a stenographer's copy of their report of the meeting for publication and distribution. Such a report would indeed be of value for immigration purposes, and we hope nothing may occur to prevent such a convention convening. The small grant is needed for ordinary outlay, and the resulting benefits to Canada must be large.

The Pros and Cons of Ensilage.

In many of our American exchanges the benefits and defects of ensilage are very freely discussed by able men; some of whom are practical feeders, and some professional experimenters. Practical men seem to be pretty much of one opinion as to the value and economy of ensilage.

Mr. Hoard, the able editor of Hoard's Dairyman, speaks highly of its value. Professors A. J. Cook and J. W. Sanborn, writing in the N. Y. Tribune, shows us plainly that there is a decided difference of opinion among scientific men as to the value of ensilage. (Their articles will be found in other columns of this issue). We would advise our readers to move very carefully in this matter, and intelligently determine for themselves by actual investigation or experiment, whether ensilage or dry fodder will be the most profitable food for their stock. We would be glad to hear from any of our readers who have had experience in this matter. It has been gaining considerable favor in England, and in a future issue we will give their method of preparation.

The Industrial Exhibition.

The approaching Toronto Industrial Exhibition, which opens on the 10th Sept., promises to be a more complete exposition of the agriculture, manufactures and arts of the country than any of its predecessors. The entries in every department, but especially in live stock are more numerous than those of any previous year. In the herd competition alone, in the various classes of pure-bred cattle, over thirty herds have been entered. Specially full and interesting exhibits will be made by British Columbia, Manitoba and the Northwest Territories, and the Algoma District, of the products of these respective portions of the Dominion, and the Government Farm at Ottawa is sending a collection of over 200 varieties of cereals and 150 of potatoes. The management promise a highly entertaining programme of special attractions, the details of which can be learned by writing the secretary, Mr. H. J. Hill, Toronto, for a copy of the exhibition programme. The Governor-General, Lord Stanley, will open the Exhibition on the 11th September.

A poisonous solution applied to the leaves of a plant would doubtless kill a leaf-eating insect, but what effect would it have upon sap-sucking insects, like plant lice or the squash bug? Pyrethrum, or the kerosene emulsion, which affect the respiratory organs, would be far more effective with the latter insects.

The Farm.**Plowing.**

Prof. J. W. Sanborn, of the Missouri State Agricultural College, has issued a bulletin giving the results of experiments made by him, in which he shows that as plowing is usually done there is a great loss of power, resulting in either inferior work or overtaxing the team, from the improper adjustment of plows with reference to depth and width of cut, improper adjustment of harness, the use of colter of any form, and the non-use of wheel or truck under the end of beam to regulate the depth of furrow. The tests of draughts were all made with the dynamometer, previously tested for its correctness, and its indications carefully noted, so that the results arrived at can be accepted as correct.

Most farm harnesses have an extension of the hip straps with a loop at the end, through which the traces pass to hold the latter in place when the team is unhitched. This loop is about on a direct line with trace when the horses are hitched to a farm wagon; but when taken from the wagon and hitched to the plow, the doubletrees are so much lower than when on the wagon as to cause an angle in the trace where it passes through the supporting loop to the whiffletree. Such conditions, he found, caused a serious increase on the draught. The least draught was found where the trace extends in a direct line from its attachment at the hame to the center of draught in the plow when adjusted to its best depth for working.

The use of a colter of any kind also added to the draught, while the use of wheel under the beam—now fallen into disuse—lessened materially the draught. Thus, as a result of several tests, with and without the truck or wheel, the following averages were obtained: Average draught per square inch of furrow turned with wheel on, 4.87 pounds; without wheel 5.56 pounds; per cent of draught saved by use of wheel, 14.1. In the test of colters, the old and new style knife and rolling colter were used, with the following results: Average draught with colter on, per square inch of furrow turned, 5.77 pounds; with colter off, 4.99 pounds; loss by use of colter in per cent., 15.6, or about the same as the gain by the use of the wheel.

Strawson's Air-power Distributor.

The English Agricultural Gazette of recent date gives the following description of a new implement which promises to be of value to farmers and horticulturists. The above journal says:—After personally inspecting the machine at work, we are able to report that Mr. Strawson has brought out an efficient instrument, capable of performing what its inventor has striven to realize—a perfect distribution of various substances used in agricultural operations. It was first tried upon oats, and the trial was conducted upon the turnpike road, in order that the spectators might thoroughly inspect the result. The oats were placed in a hopper, which is to be enlarged so as to hold six to eight bushels. The oats are allowed to feed gradually downwards and are delivered over a wide nozzle, over which they pass in a continuous stream. From the nozzle issues a blast of air, produced by a fan moved by the traveling wheels of the instrument, and worked up to a velocity of 3,600 revolutions per minute. The direction of the blast and of the material (oats, or whatever else is being distributed) is further directed by a flanged plate, over which the oats are blown in a fan-like form, extending over a width of about 23 feet. The grains were completely separated and the ground

was covered with extraordinary regularity. The machine was next filled with water, and a suitable nozzle was fitted on in place of that used for dry matter. Here the distribution of liquid was very perfect. The water was thrown out as an impalpable spray from which nothing could escape. The machine was next charged with paraffin oil, when the effect was still more marked, as the paraffin was rolled out in a cloud of vaporous-looking fine spray, which was calculated to envelop every blade of grass or leaf of turnip over which the machine passed. The effect when finely-slaked lime was used was, perhaps, the most striking, as the lime formed a dense white cloud, and was distributed with absolute uniformity. Every blade and culm of grass was coated as with hoar frost.

The significance of Mr. Strawson's invention is most evident in connection with insect attacks and blights. Broad-casters and manure-distributors we have already, although this instrument will, we think, prove a formidable rival to some of them; but an efficient means for completely coating or spraying growing vegetation we have not as yet had.

The instrument now for the first time brought forward is superior to Mr. Jephson Rowly's machine for dusting over young turnips affected with fly. The large breadth it takes alone places it in an unrivalled position, and the perfection of the distribution and the extreme state of division of the liquid applications, both give it a peculiar interest.

The machine, to be efficient, must travel at a brisk pace, and easily covers twenty-one feet or seven yards.

Improvements in Agricultural Exhibitions.

BY JOHN DRYDEN, M. P. P.

Having just returned from a short stay in England, where I had the privilege of attending some of the exhibitions then being held, it has occurred to me that it will not be improper to present a few suggestions showing how the managers of our Canadian exhibitions might profitably follow the example of the English shows. In some respects our exhibitions are equal if not superior to those held in England. Our exhibits are more varied and are calculated to interest all classes of the community.

The benefits reach the masses of our people, the entrance fee being placed at such a limit that everyone who has a desire may find admittance. In England the admittance fee to many of the shows is placed at such a high figure as to exclude altogether certain classes of the population.

The machinery halls at some of our exhibitions are far ahead of anything I have yet seen in England. The perambulating character of most of their exhibitions precludes the idea of any great expense in the erection of suitable buildings. The buildings are nearly always of a temporary character, but are built with considerable neatness, and adapted to the uses for which they are intended. Many of them are covered with stiff sail cloth instead of boards or shingles. Iron hurdles enclose the sheep and pig pens. These with the lumber are purchased new, and after the exhibition are sold at public auction. The manufacturers furnish them at a reduced price on account of the advertisement which they receive by their exhibition in use. I am told that at the sales they generally yield a profit.

The most striking advantage which the English exhibition has over the Canadian is the