ers in particular who could not feed birds to advantage in loose pens, as compared with crates. We have had one feeder who could get slightly better returns in some cases, not all, with birds in pens, as compared with crates.

In speaking to the buyers of chickens. the majority of them seem to think that the crate-fed birds are much superior to those fed in loose pens. Personally, I would prefer feeding birds in crates, for the reason that it takes less room, and I believe I can feed them with less expenditure of labor, and get a more even product. There are now many people who can get good results from feeding birds in box stalls, etc. No matter which method is followed, cockerels should be fed for two weeks or more before they are killed and

GARDEN & ORCHARD.

Tramping Gold under Feet.

Ages ago, the Indians, trailing from Lake Ontario, northward, past Nipissing to Hudson's Bay, never dreamed that under their feet lay the fabulous wealth of Cobalt, Sudbury and Porcupine. Thirty-five or forty years ago, men who attempted to grow good grain crops on a certain sandy ridge through the Counties of Essex and Kent, Ont.. would be laughed at, but one day a genius named Tyehurst, from the United States, came along, and saw something in the conditions there So he planted out 75 acres of fruit trees, and took from it \$30,000 worth of peaches in due Lands that once went a begging sold for \$100 to \$500 per acre for fruit or tobacco farms. With such illustrations as these did A. McNeill remind his hearers, at a Cowansville, P. Q., meeting, last winter, of how their lands, now worth, under ordinary practice, from \$40 to \$60 per acre, might, by transforming a portion of them into apple orchards for growing Fameuse and Mc-Intosh Red, yield them, at very slight cost, dividends on a valuation of \$300 to \$500 per acre, and that, too, a very low figure. This would be done in conjunction with dairy or mixed farming, in which they were engaged. Looking over the printed report of the meeting in question, it will be seen that Mr. McNeill figured that an orchard fairly well cared for would average about eighty barrels of apples per acre; and, supposing they sold for only \$1.00 per barrel, an absurdly low figure, the way fruit is now going and is likely to go, there would be left a net return of \$50 per acre, assuming \$30 per acre had been expended upon the orchard for pruning, cultivation, manuring, spraying, etc. Now, \$50 net is a 5-per-cent dividend on a valuation of \$1,000 per acre. How many commercial concerns doing a legitimate business are paying a dividend of over 5 per cent.? Mr. McNeill cited cases where the net return was over \$100 per acre, and in one case four acres gave a return of \$1,000 in a single season. In Norfolk Co., Ont., an orchard that once brought in an income of but \$60 or \$70 per season, with better care, through the establishment of a cooperative association, gave its owner a return of from \$300 to \$600 per year; while a forty-acre farm, once worth but \$800 to \$1,000, has changed hands at \$17,000, and this was considered a good

are such cases in plenty. Mr. McNeill quoted the signed statement of nine Nova-Scotia apple-growers in the Annapolis Valley, whose orchards, valued at \$610 per acre, gave an average net profit of 28 per cent. on that valuation. demonstration orchard undertaken by "The Farmer's Advocate'' three years ago, in Middlesex Co., Ont., which needlessly has had a very bad reputation because of the gross neglect of orcharding, has abundantly proven that such results in returns are obtainable by anyone who has a mind to secure them, even in an ordinary fruit district. Now, as Mr. McNeill points out, the foundation of any good system of farming is animal husbandry. Unless under exceptional circumstances, it is folly to resort to selling hay and grain as the staple source of farm revenue, when, in conjunction with dairy farming, for example, an orchard of from 10 to 20 acres on a 100-acre farm could be established at an initial cost of about \$10 per acre, and, with little subsequent outlay, would give a net return of irom \$50 to \$150 per acre per year. Men do not need to go from Quebec to the Okanagan Valley or to California to make money in great comfort growing fruit. The opportunity lies right at their doors. McIntosh Red apples could be grown, boxed, and sold near Cowansville for more money than the men of California or Florida could get for oranges, and they would be grown at less cost per box. Why, then, will the men of Quebec and Ontario, and other Eastern sections of Canada continue to tramp the gold beneath their feet? Like the Indians, we pass and repass these reservoirs of wealth and satisfaction day after day, apparently all unconscious of their very existence.

Potatoes in the Young Orchard.

The 1911 potato crop in most sections of Ontario has been a comparatively light one. best yields have been reported from districts which have a good fruit soil, and this should encourage the growing of larger acreages of this important crop in these districts. Where a young orchard is being started, there are few better crops to grow in it than potatoes. Most fruit-growers do not approve of cropping an orchard, even a very young orchard, but where cropping is done, potatoes seem to fill the bill very well. Of course, where potatoes are grown with the young trees, it is necessary to fertilize the land frequently, but this must be done, anyway, if the young trees are to make the best possible growth, and all that is needed is a little heavier applications. crop of potatoes brings in a large return from the land, and the frequent cultivation necessary to keep the potatoes free from weeds and to insure their most vigorous growth, is a great aid to the growth of the young tree. Potato cultivation ceases in time to permit of the wood of the trees ripening up before cold weather sets in, and the rapid growth of the tubers in the late summer and early autumn draws upon the fertility of the soil, and so the growth of the tree is checked in time to insure its being hardy enough to withstand the frosts of winter. Where early potatoes are grown, and the crop cleaned away very early, clover might be sown to good advantage. This would furnish an ideal cover crop

Nor are these isolated examples. There under these conditions. In fact, early potatoes could be followed by almost any of the standard cover crops. In districts where strawberries do well, they can be profitably grown in the young orchard, and, in the preparation of the soil for strawberries, nothing is much better than the growing of a crop of potatoes. The only thing to guard against is exhausting the soil too such an extent as to affect the growth of the trees. The trees should be the first consideration, and enough manure and fertilizer should be added to keep them growing rapidly. Where the land is cropped, the extra demands on the soil must be met by an increased supply of fertilizer.

The price of potatoes is very uncertain. This is due to the fact that the supply from year to year is very irregular, and the demand remains about the same. This inelasticity of demand is accounted for by the fact that, no matter what the price may be, the consumption of potatoes in the ordinary family remains the same. tato is cheaper than substitutes at almost any price that it has been known to reach. will always be a market for potatoes, and they are a crop which will serve to pay very good returns from the soil while the owner is waiting for the young trees to come into bearing. Of course, judgment must be used in growing them, and, as the trees grow from year to year, less and less cropping should be resorted to, and more free space allowed to the trees.

That honey is undesirably affected by the nectar from tobacco blossoms, is the complaint of American apiarists in tobacco-producing sections. Will this honey have somewhat of the tobacco effect upon those who use it? queries the Indepen-

THE FARM BULLETIN

World's Grain Crops.

A cable to the Publication Branch, Department of Agriculture, Ottawa, from the International Agricultural Institute, Rome, gives the following on the basis of crop returns for the leading graingrowing countries of the world:

	1911.	1910.
	(bushels)	(bushels).
Wheat	3,044,528,000	3,034,879,000
Rye	1,388,477,000	1,440,720,000
Barley		
Oats		
Corn—Not totalled 1910.	, but 1911 is	very much below

The promotion of Hon. Robert Rogers, Minister of Public Works in the Provincial Government of Manitoba, to the Dominion Cabinet, with the portfolio Minister of the Interior, has led to a change in the construction of the Provincial Cabinet. Up-to-date, Premier Roblin has also been Minister of Agriculture and Immigration. Henceforth, there is to be a Minister with sole charge of Agriculture and Immigration. George Lawrence, of Killarney, is to assume this port-

TRADE TOPICS.

As a labor- and time-saving device on the farm, the litter carrier, installed for removing manure from the stable, is one of the most satisfactory improvements of the day, being almost automatic in its operation and capable of depositing the manure directly upon the wagon or sleigh or spreader, if desired, so that it may be taken at once to the field and spread where required without manual labor. See the advertisement in this issue, of the Louden Machinery Company, Guelph, Ont., and write for their free catalogue, giving full particulars.

DR. HESS' POULTRY PANACEA. -There is probably no branch of farm science so persistently exploited to-day as the poultry industry, and there are few branches of this science that will yield larger cash returns on the money invested than will a modest flock of poultry is rightly managed. The poultry business cannot be made a success in a few months. There is no use of a person who does not know a little about the business thinking that he can start on a large scale and make a success. He must grow up with the business. There is much to be learned in connecthe feeding of the poultry, whether for ening the birds or feeding for egg prod healthy as vigorous, which necessitates

that their digestive organs work up to the maximum capacity. To accomplish this a tonic is sometimes needed. manufacturers of Dr. Hess' Poultry Panacea, which is advertised in another column, claim that its use gives tone and strength to the digestive organs, and so causes the greater proportion of food to be assimilated and turned to egg production. They also claim that it aids growth and early maturity and prevents some of the common poultry ailments. See the advertisement elsewhere in this issue.

GOSSIP.

HOLSTEINS AT AUCTION.

On November 21st, as announced in the advertisement in this issue, to settle an estate, 70 head of choice Holsteins will be sold by auction at Elmdale farm, 1 mile east of Thorold, Ont., on the Welland division of the G.T.R., and easily reached by trolley from Niagara Falls. Record of Performance cows fresh, or due to freshen before sale, and heifers, daughters of record cows, bred to highclass bulls, and due to freshen at early dates, are in the sale, as also the herd bulls, a number of young bulls nearly of serviceable age, and some choice grade Holstein cows with large records, and their daughters. One of the bulls to be sold is a grandson of the famous Boutstje The hens must be kept cow, owned by the O.A.C., Guelph. Parties interested will do well to look up time.

the advertisement and apply for the catalogue.

John Elder, Hensall, Ont., whose advertisement runs in this paper, writes: Anyone wanting Shorthorn cattle that will thrive and give satisfaction, should inspect our herd, as we just keep them in a healthy, growing condition. We do no showing nor pampering, and our herd cattle are breeders, feeders and milkers and will do well anywhere under ordinary conditions. Scotch Grey =72692=. one of the best bulls in Ontario, has been at the head of our herd for three years. Come and see our young bulls.

SHEEP AND SWINE AT THE WINTER FAIR.

Sheep, to be exhibited at the Winter Fair at Guelph in December, will compete for 312 cash prizes, amounting to \$1,960. The prizes are divided among the following breeds: Cotswolds, Lincolns, Leicesters, Oxfords, Shropshires, Southdowns, Dorsets, Hampshires, Suffolks, and also for both short- and longwoolled grades. Exhibitors should notice that all lambs to be shown in pens of three, must also be exhibited in the sections for single animals. Formerly the lambs for pen exhibits had to be named at the time of making entry, but this has been changed to enable the exhibitor to group his lambs after that

In the swine department, the Ontario Berkshire Society has increased its grant to \$100, and the Dominion Swine-breeders' Association is giving \$50 instead of The Society representing York-\$25. shires has added \$125 to the prizes for that breed. There are prizes in the sheep and swine departments for amateur exhibitors from the counties of Halton. Brant, Lambton, Norfolk and Peel.

The photogravure of the Ayrshire bull, Prince of Spring Park, on another page in this issue, represents the head of the herd of Roy W. Bullpitt, of Cardigan, Prince Edward Island, which, owing to his daughters' coming of breeding age, is now for sale, and should find a ready purchaser, he being a bull of fine type and character, as his picture and prizewinning record show. He is royally bred, his sire being Prince Sunbeam of Glenora, by Black Prince of Whitehill (imp.), dam by Duke Clarence of Barcheskie (imp.).

Now is the time to establish or start improving the farm flock of sheep. Those interested should, by all means, look up the advertisement in this issue of Wm. Barnet & Sons, Living Springs, Ont., who are making some special offerings in ram lambs and shearling Oxford Down