

all for \$20. It is claimed for it that it will dig potatoes equal to any machine made for that purpose. There was a fine array of ploughs. Double mould boards are shown by George Morley, Peter Mallaby, Robert Crow, and John Gray, of Egmondville. Beside these ploughs lay a 3 horse whipple tree, which appears to be admirably fitted for the purpose of enabling a trio of horses to work abreast. Subsoilers were shown by George Morley, Peter Mallaby, and Messrs. Atkinson. They have a very heavy look, and would want more than a single team to work them. Wooden ploughs were exhibited by George Morley, Archibald Gillies, of Morristown, and John Gray. Iron ploughs, of the most approved Scotch pattern, were exhibited by John Gray, who had a very beautiful specimen of finished workmanship. George Morley, Alexander Duncan, Robert Crow, and Hugh Milloy. The latter had, in our view, the best shaped mould-board of any plough on the ground, and the one that will turn the nicest furrow, unless we are greatly mistaken. A portable combined sheep rack and shed was built close to the ploughs. It was shown by Cyrus Kearney, of Dereham. A turnip drill for sowing turnip seed and artificial manure, either by horse or by hand, was shown by John Westlick, of Port Hope. A one horse seed-drill was shown by T. & W. Walker, of Brampton. A two-rowed turnip drill, that both sows seed and drops liquid manure, was exhibited by E. E. Rokey, of Malahide. A cord-wood sawing machine was shown by T. & W. Walker, of Brampton. Several horse-powers were scattered about in a disjointed condition. The "Stratford Improved Ohio Reaper and Mower" was just making its way to the grounds on a railway truck as we were vainly trying to get an idea of the horse-powers. Mr. Walmsley, of Berlin, showed a sort of plough with a double gridiron attachment, called a "potato-raiser," which is meant to save the labour of hand-digging, the universal esculent. This is the potato digger to which attention was recently called in our "correspondence" department. Field cultivators were shown by Turnbull & Co., of Hamilton; John Walmsley, of Berlin; and A. C. Bruce, of Guelph. A combined grubber and cultivator was exhibited by T. & G. Morgan, of Markham. Steel points that are moveable are attached to the grubber when a cultivator is wanted. This implement is beautifully finished, and appears capable of doing good service. Mr. Lowrie of Sarnia, showed a very simple and strongly made cultivator. Alexander Anderson, of London, had what he styles a "Universal Cultivator." It will plant, work among root or grain crops, or dig potatoes. The wheels and bars draw out or contract to suit the width of the rows. Grain Drills were shown by B. W. Walker, Kittleby, and Maxwell & Whitlaw, of Paris. The latter had a grass-seed attachment to their drill, by which grass-seed can be regularly and evenly sown. Root Cutters were exhibited by John Leigh, King, and Maxwell & Whitlaw, Paris. Horse-rakes of various patterns were shown by J. Brown, Toronto; John Leigh, King; and John S. Palmer, of Scarborough. A nice farm cart and wagon were exhibited by J. Hobbs, Toronto. Atkinson & Bros., of Etobicoke, had a ponderous machine called a soil-presser, intended to settle down newly-ploughed sward-land, and scarify the loose soil on top. Only one field roller was to be seen when we examined the implements. It is made in two sections, and was shown by Thomas Todd, Markham. Thomas Wilson, of Richmond Hill, had some fanning mills of good make. E. Rokey, of Salem, Malahide, had a seed drill of peculiar construction, which is readily changed to a grass-seed sower, the combined machine costing but \$15. The same maker showed a hand grass sower costing only \$2, which will sow grass seed much more quickly and regularly than it can be done by hand. He also showed a light cheap garden drill for sowing seeds. It costs only \$1.50. The same party had a very light trotting sulky. It weighs only 50 lbs., and is warranted to carry 400 lbs. Mr. Rokey also exhibited the model of a drain tile machine, which can be afforded for \$15, and is capable of turning out from 1,000 to 2,000 tiles per day of 1½ inch diameter. A drain tile machine was shown by W. Lindsay, Newcastle. Straw cutters were exhibited by H. A. Massey, Newcastle; and by Maxwell and Whitlaw, Paris. The latter have them both hand-power and horse-power. There were several reapers and mowers on the ground. Ball's Ohio reaper with Dick's self-raker attachment, was shown by Mr. Glen, of the Joseph Hall Agricultural Works, Oshawa. The Eagle mower was exhibited by E. F. Hetherington, of Valley Falls, N.Y. Wood's mower and Wood's reaper with the self-raker attachment were shown by Isaac Modeland, of Iloira. The Wellington reaper was exhibited by J. Collins, of Guelph. Threshing machines were shown by Haggart Bros., Brampton. John Abel, of Woodbridge, was busy putting one together Tuesday afternoon. The "Queen's Own," "No Surrender," threshing machine was exhibited by H. A. Massey, Newcastle. Beside his thresher,

Mr. Massey showed a neat garden-roller. W. R. Shaver, of Ancaster, exhibited a most useful invention, for connecting the joints of horse-powers and threshing machines in such a way as to prevent all accidents. "Carter's Combined Ditching Machine, Sod and Turf Cutter," was exhibited by Daniel Stewart, of Aylmer. G. Rice, of Whitechurch, showed some nice pumps, and Charles Powell some "Patent Swing Pumps." A very complete set of factory cheese presses was shown by J. & S. Noxon, of Ingersoll. These properly belong to the dairy department, but were located among the outer and field implements. John Tomlinson, of Thornhill, exhibited patent barrel hoops for all sorts of barrels, from a flour barrel to a petroleum barrel. Besides the implements above enumerated, there were portable steam engines and sawing machines, which lay here and there in parts, waiting the advent of propitious weather to be put together and set to work. Piles of saw logs were in readiness for these machines to operate upon as soon as they could be put a going. Later in the week, some parts of the Exhibition grounds presented a very lively appearance.

Miscellaneous Fertilizers.

To the Editor of THE CANADA FARMER:

Sir,—Speaking on the subject of manures in your familiar talk on miscellaneous fertilizers, you say of guano at \$50 per ton. "We do not know of a better investment that the farmers of this country could make, especially those whose lands are worn out by successive grain crops." Hereabouts, \$60 invested in manure from village and town stables would purchase 200 tons or more. At these prices I think it is obvious which would be the better investment. Although not acquainted, just at present, with the relative values of guano and common stable manure, and giving due deference to your editorial opinions, I have no hesitation in saying that, wherever it can be procured at any reasonable price I would give the preference to common yard manure in some of its forms, for all the varied requirements of the farmer, under most if not all conditions of soil and circumstances, to any artificial fertilizer whatever. But I would here urge the use of plaster, which is essential to those who believe in the value of clover and grow it to keep up the fertility of their farms. Good for the production of clover, plaster is the most valuable of fertilizers. The proper place for the application of such fertilizers as guano, bones and its preparations, &c., to make the most of their advantages, is in gardens and on lands where clean culture is indispensable and where the introduction of seeds of weeds must be specially guarded against. On such soils, and on such soils alone, with exceptions few and far between, would the operation be a paying one, except to the manufacturers or importers and their agents. J. F. C.

L'Original, Sept. 10, 1866.

NOTE BY ED. C. F.—Our correspondent is fortunate in living where farm-yard manure is abundant and cheap. We hope he and his neighbours make liberal use of it. Chemists consider a ton of guano as about equal to 33½ tons of good farm-yard dung, so that if the latter can be got for 30 cents per ton it is obviously a better investment than Peruvian guano at \$60 per ton. But we presume hauling is not included in the above estimate, and it must be borne in mind that the bulk of Canadian farmers are not within easy distance of village and farm stables. There are few localities where farmers can get what manure they really need at any price. The supply obtained from village and farm stables must be hauled when in an undecomposed state, and by the time it is sufficiently rotten to apply to the soil, it is reduced in weight one half and its value still more lessened by exposure. In most localities it will cost after purchasing, hauling, and rotting, not far short of \$2 per ton. Considering the portability of guano, its peculiar qualities, its quick action, and permanent effects, we think it might be advantageously used to a considerable extent by Canadian farmers. We do not agree with "J. F. C." as to clean culture being of greater importance in the garden than on the farm. A small garden is easier hoed than a large farm, hence the necessity of using manures that have no seeds of noxious weeds in them.

Tiptree-Hall Farm.

THE Essex Standard speaks of a visit to Mr. Mechi's farm as follows:

Now that the annual agricultural gatherings at Tiptree have become matters of history, the public may be willing to accept the testimony of an occasional contributor as to the state of farming in that, in one sense, notorious locality. The victimization suffered in connection with the defunct Unity Bank has stripped its owner of some of the glittering attributes of a rich man, and by his own voluntary relinquishment of the office of Alderman and the title in prospective to the City Mayorality, he has laid aside the tinsel of civic honours; but Mr. Mechi "at home" is unchanged; his farming theories are held as stoutly and as good-humouredly as ever; there is the same genial domestic circle; the same hearty hospitality for the friends of other days. The same system of cropping, too, is pursued; there is the irrigated rye-grass, producing its 3 tons of hay and 2 tons of aftermath per acre; the mangold nourished in healthy luxuriance by the absorption of liquid manure; the land everywhere clean and friable, though always under crop. The wheats at Tiptree bear evidence of the unfavorableness of the season for heavy lands; only one field is thought likely to approach six quarters per acre, and the bulk will be below five. The wet weather last seed time induced Mr. Mechi slightly to increase his usual quantity of seed (4½ instead of 4 pecks), but he repeated his favorite experiment of dibbling four or five middle stretches with only one peck per acre, and although scarcely a blade could be seen in April, and even Mr. Mechi then thought it must for once fail, the tillering and growth were afterwards so rapid and satisfactory that the crop is now evidently superior, both in grain and straw, to the rest of the field. Mr. Mechi still fats bullocks under cover; he has, as usual, a thriving lot of lambs; and (what so shocked his practical farming friends at the Coggeshall meeting last year) he has 300 or 400 fowls which range the farm without restraint from seed time to harvest. Yet Mr. Mechi points with triumph to the fact that his best field of wheat is exactly in front of his hen-house.

WEEDS.—The microscope reveals the fact that every stem and twig as large as a quill contains some ten thousand little tubes, through which the water or sap is constantly passing upward during growth, to the leaves above, which spread it out by means of their fine network, and give it in the form of vapour to the air. With ten weeds upon a square foot, an exchange estimates that the careless farmer has forty-four million pumps at work on every acre, dissipating the moisture and drying up the soil, at the expense of the crops. Boys, are the weeds pumping your fields at this rate?—*Prairie Farmer.*

GROWING POTATOES UNDER STRAW.—The editor of *The Rural World* says:—"On a recent trip in St. Clair Co., Ill., we saw hundreds of acres of land covered with straw. The ground had been ploughed and harrowed and marked off, and potatoes dropped, and then the whole surface covered about six inches deep with straw. The potatoes have no further attention till digging time, when two or three hundred bushels per acre are obtained. The straw keeps the weeds down, and the soil cool and moist. The straw is raked away in autumn, and there lie the potatoes white and clean. The straw potatoes bring the highest price in the market."

CANADA THISTLES.—A writer in the *Western Rural* tells how he killed acres of Canada thistles, thus:—"Plough early in the spring, as soon as they are all out of the ground. As soon as they are up the second time, plough or cultivate with a wheeled cultivator, and so continue as often as they come in sight, which will be about three or four times during the summer. If the season is wet it is all the more favorable for killing—other's don't agree with me—because they sprout and make their appearance much more certainly than in a dry season. In a dry season the roots lie in the ground without coming up; in a warm, wet season they come up three or four times, and that is their end if they are as often plowed."

SELF-SEEDING WHEAT.—A paper published at Hastings, Minn., gives the following account of a good crop of wheat being harvested from the shelled grains that were left on the ground a year before:

"Mr. George Barbares, of Vermillion, brought sixty bushels of new wheat to this market, and sold it for \$1.30 per bushel. This wheat was a portion of some 400 bushels raised on a 20 acre lot, which was self-sown. The crop of last year on the field was harvested late, and shelled considerable in gathering. A fine crop came up last Fall from this seed thus sown—wintered well, and the result is as above stated—a yield of twenty bushels to the acre. It is a beautiful, plump berry, and weighs 58½ pounds to the bushel."