

A New Fertilizer.

From the *News and Advertiser*, of Milford, Delaware, we copy the following on Indian meal as a fertilizer:

Indian Meal is said to be equal to Peruvian guano as a fertilizer. Like the latter, it will kill the germ of the seeds if applied in too large quantities. It may be used in the hill, furrow or broadcast, in about the same quantities as guano. At 60 cents per bushel for corn, a ton of it costs \$24, or about one-third as much as guano. It acts quickly upon the growing crops, and may be applied to wheat in the spring, at the time of sowing clover, and raked in with the grass seed.

From all that we have heard of this article as a fertilizer it is certainly worthy a trial, and we hope that some of our readers will experiment with it the coming season, and report the result. Wheat bran also may be quite as valuable for this purpose, and may be tried in the same manner. A tablespoonful of cornmeal may be applied to a hill of corn, or 30 lbs to the acre on wheat or other broadcast crops. It is said to answer quite as well on potatoes and other root crops.

Night Soil.

Night soil is a valuable and extremely powerful manure richer in nitrogen than horse or cow dung. It should be deodorized before using, by sulphate of iron or powdered charcoal. The use of charcoal for deodorizing night soil is attended with peculiar advantages, as it is of itself, from causes not entirely ascertained, one of the best auxiliary manures known to agriculture. Wherever charcoal is present to a considerable amount in the soil, there grapes and all kinds of fruits flourish luxuriantly and mildew is unknown. Charcoal and gypsum are the best deodorizers of night soil, as they both fix the ammonia. Lime should never be used with night soil, nor indeed in the composting of any animal excrements, as it drives off the ammonia. As before stated, plants take up their food in the liquid and gaseous condition which, of itself, shows conclusively that the urine of all animals should be given to the soil.

CROPS FOR SOILING—Last spring, I sowed winter rye for soiling; it looked very fine a few weeks after sowing, but as soon as the warm weather set in, it was good for nothing; the stalks were very thin, and there were hardly any heads. To fill the gap between fall-sown rye and corn-fodder, I like early sown oats the best. I sowed oats a few weeks later, and they were a great deal better than the rye.—*Cor. Country Gentleman.*

SOILING—FOOD FROM AN ACRE—J. R. B., in the *Practical Farmer*, gives an account of what he produced from two and a half acres of land put in first-rate order, and used for soiling and root-growing. The land was used from August 1st, 1871, to the end of the season of 1873. The corn-fodder, green rye (for autumn use), and white mustard, furnished food for twenty-five cows for two months, and for thirty-five cows and two oxen for one month. In addition to this he raised 840 bushels of round turnips, the same quantity of beets, and 250 bushels of ruta-bagas. When dairymen learn to produce such an amount of fodder from an acre, a fifty acre farm will carry as many cows as 200 acres under the wasteful system of three to four acres to pasture a cow. If dairymen would study the best method, supporting more cows on their small farms instead of buying more land to be spoiled by half tillage, they would make an improvement in the right direction.

ON SURFACE MANURING—A correspondent of the *New York Tribune*, writing from Livingston County, N. Y., on experiments in manuring, says: About nine years ago I became the owner of a small farm near where I reside, and in one of the fields I discovered a side hill or knoll, unproductive. After plowing it for wheat I scattered over it a thin coat of manure, then harrowed it, and drilled in the wheat. The consequence was that the wheat was there as stout as it could stand. The sowing that followed was just the same, and to this day, though no manure has been added, it is the most productive part of the field. I have tried it in other places with the same results. This year, though we have not half a crop of wheat, wherever surface manure has been spread there is a full crop. Hay has dwindled down to about one-fourth of the usual crop, but where I scattered manure over the surface, during the winter, no better or more abundant grass ever grew. To this experience I will add that I have several times plowed under manure for corn and beets, but have never discovered any effect, except to get it out of sight.

Implements of Husbandry.

Implement Review.

In briefly reviewing our labors in this department during the year that is past, there are various considerations that must have struck the reader as standing out in bold relief. The first of these is the great degree of perfection to which our Canadian implements—take them all in all—have arrived. Beginning with the plough, and passing along through the entire series, to the threshing machine, and fanning mill, the strides that have been made in almost every case are often surprising, and not unfrequently perfectly marvellous to contemplate, when we contrast our present agricultural machines with those of even ten, or twelve years ago. We have the rough, short, stub-plough for breaking up the sod upon new land, and arranged with every facility for dipping, and digging its way amongst the spreading roots of stumps, or growing trees. Following close upon it we have the long, and short iron beam, the jointer, and a hundred different varieties of ornamental implements, for fancy ploughing, all of which, made at the present time, are very good, although, of course, some of them are much better adapted to certain localities than others. And here lies a truth, which, when properly considered, should do away with much of the jarring, and unpleasantness which often, unfortunately, occur between manufacturers both on this, and the other side of the line, as well as beyond the ocean. It is that, as a rule, the implements manufactured in certain localities are better adapted for these special localities than others. Both makers and users will understand, and appreciate the force of this remark. It follows logically, as a fact, from another fact, viz., this: that wherever an agricultural implement emporium is established, the manufacturer is guided largely, may we not say mainly, in his improvements by the ideas, and suggestions of his customers. In fact, without these there would be no great improvements. One man growls about his reaper; it does not cut this aright, and it lays that all wrong, and so on. The maker thereupon looks into the matter with him, deliberates over it maturely, and, at length, one, or both of them hit upon a remedy—or it may be two, or three different remedies, any of them bettering the case—hence invention, and hence improvement. But it must not be forgotten here that in this Province of Ontario especially, there is a very marked difference observable in the character of the soil, as well as its productions, in about every fifteen miles square of its area. So, from this fact, it will at once be seen that certain implements admirably suited to one locality will not answer nearly so well in another—perhaps fail altogether. Hence it is that certain machines, adjudged first-class, and conscientiously so by their manufacturer, are decried when they go a long distance from home, and he, feeling naturally aggrieved in consequence, attributes it all to spite, or jealousy, or slander, on the part of some rival, and whenever any of this rival's pet machines find their way into his locality, and fail, he is not long in returning the compliment, and that with a vengeance.

In harrows, no very great changes have been made, at least there has nothing much been gained by the changes, except in the case of "chain" drags, which certainly leave behind them a beautiful, and smooth bed, but they are serviceable only on a very clear, and fine quality of land.

The roller, in segmental form, is a decided improvement. The segments dip down into ruts, and hollows, as it rolls along leaving scarcely any portion of the surface unrolled whilst the scrapings that always accompanied the turnings of the old one-piece roller are entirely obviated.

In subsoilers, and cultivators, improvements have also been very rife. The tooth may be now bought of almost any shape, from the single prong, to the web, or duck foot, thus rendering it suitable to almost every kind of soil.

In seed drills, both for grain, and roots, as well as for the various manures, one might almost say that perfection has been reached. To be able to utilize one, and the same machine for sowing every kind of seed, from the small turnip atom to the bean, is an achievement worthy of the nineteenth century. Similar remarks are equally applicable to the case of the larger grain drills, and above all, the fact that crops have multiplied under their use, renders them specially worthy of notice.

In cutting machines, reapers, and mowers, we cannot say that anything absolutely new has been permanently added for some years. Of course we have had any amount of ingenious contrivances added, principally in the "reception" and "delivery" departments of the former machine, and not a few attempts have been made to add the "binder" to it, either manually, or mechanically; but so far all these have been either discarded, or regarded with a considerable degree of suspicion, at all events, none of them are regarded as permanent additions, as yet. On the contrary, we find most of our successful, and responsible manufacturers inclined to settle upon the self-rake—the "sweeper,"—introduced about eight years ago.

On the hay-field, we find that the "Tedder," and horse rake are gradually replacing the hand implements. The large amount of labor, and time saved by both these, as well as the various kinds of hay forks now in use, leads us strongly to the belief that they will all three come to be used universally very soon.

In threshers, that upon which we have heard the most favorable comments thus far, is the "vibrator" or "agitator" which tosses up the straw six or seven different times ere it leaves the building, thus completely depriving it of grain. It cannot be denied that in the other ordinary threshes, long in use in this country a very considerable quantity of grain was carried off in the straw.

Of the other "stock" implements, we cannot omit the many excellent kinds of Food-choppers, Grain-crushers, and most particularly the "Steamer" now in use—saving and improving as they do the feed, and with it of course the stock—thus conferring direct benefits in three different ways.

In conducting this department during the present year, we shall endeavor, whilst marking improvements and inventions as they occur, to dwell a little more upon the theory of working the land, and the reasons why the soil when operated upon by suitable implements, should yield more and yield better than by the old principle of hand labor.

A New Manger.

The difficulty of feeding horses and cattle by walking up alongside of them in the stall, and pouring out the feed at their heads, is known to every farmer. Not only is it troublesome, but positively dangerous sometimes, especially in the case of a fiery horse or a restive or hungry cow.

Few, therefore, will be found to advocate the old plan, and so an improvement has been made which meets the case in some ways, but not sufficiently. We allude to the plan of feeding from a passage-way in front, by opening up a hinged board, feeding, and then closing it down again.

The objection to this method is, that whilst there may not be the same difficulty and danger attending it, yet there is a probability that a portion of the feed may still be scattered or spilled in the process, and consequently lost. A horse will dive at his oat measure, and a cow will keep tossing her head about, especially if she expects something extra good for a lunch, and so the food is partially lost.

Now there is a way of obviating all this by another form of manger, which is but of recent invention, and meets all the objections to the two former cases. It is a hinged trough. Understand us. You make your trough in the first place somewhat after the form of a wedge, (of course, you can insert a bottom in it high or low, to suit you) and, having done so, hinge it at the bottom by means of a couple of strong T's, or by hook and staple, to the partition which runs across the front of your stall in such a manner that when one side of the trough comes flush with the partition, in other words, when the affair is shut, its other side juts into the stall at the top, and the whole is therefore ready for the animal to eat out of it—