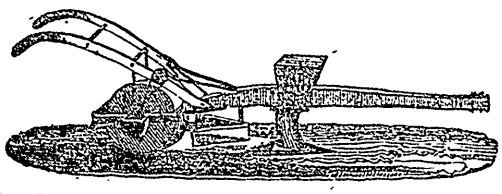
THE AGRICULTURIST

AND CANADIAN JOURNAL,

Devoted to Agriculture, Literature, Education, Useful Improvements, Science, and General News.

WILLIAM McDOUGALL, EDITOR AND PROPRIETOR.

VOL. I. TORONTO, OCTOBER 16, 1848. No. 14.



The above represents an improved implement for sowing small seeds in drills. It is an American contrivance, and is said to be very efficient on smooth, well-prepared soil. We are sorry we cannot give a particular description of it, as the descriptive catalogue of Messrs. Ruggles, Nourse, & Mason, the distinguished Boston manufacturers, which was sent us along with this and several other cuts, has been mislaid. The reader must therefore make out the construction of the implement from the cut alone. Perhaps these gentlemen will send us another of their catalogues, and some more cuts of their more useful implements? If so, we shall be glad to present their real merits to our readers.

CHOICE OF CULINARY UTENSILS.

In the choice of vessels for ordinary cooking, those made of copper or brass are to be preferred for several reasons. In the first place, they are better conductors of heat than those formed of cast iron, tin or clay. Hence less fuel is necessary to heat a certain quantity of water to the boiling point; secondly, they are less subject to oxidate, or rust, and consequently do not throw off scales, become thin and finally leak, as some other metallic vessels do; and thirdly, from the saving of fuel they effect, and their durability, they are far superior to other metallic vessels generally in use. But let it be borne in mind, that all cooking vessels made of copper or brass, such as stew pans, kettles, coffee urns, &c., should be well covered with a perfect coating of tin, not only on the inside, but two inches below the top on the outside, and every time they are used, they should be cleaned and examined, in order to see whether the coating is perfect: for much mischief arises from their getting out of repair, and if not kept perfectly tinned, the food cooked in them is liable to look dirty and green, taste bitter, and become highly poisonous when introduced into the system.

Pure tin, in its metallic state, seems to have no injurious effect on the animal system, and hence all vessels perfectly lined or covered with it, which are used for general cookery, such as cast iron pots, kettles, and pans, or the articles of common tin plate ware (sheet iron covered with tin,) may be employed with safety. The tin of commerce, however, used for general tinning is not pure, but contains traces of arsenic, copper, and lead, all three of which are highly poisonous. Yet the ordinary class of food, as meat, potatoes, &c., have no bad influence on these metals, when thus alloyed with tin; but much is to be feared from the action of acids, and vegetables containing sulphur, as vinegar, onions, greens, &c., because nearly all metals are more or less attacked by such substances.—[American Agriculturist.

GOOD COFFEE.—An exchange recommends to those who love good coffee, to burn only enough at a time for a meal, and grind it while hot, to which we may add, steep it while hot, pour it while hot, and drink it while hot, and don't get hot yourself.

WHAT DO WHEAT AND CORN EAT?

We eat the wheat and corn, said a little boy to his father, but *what does the wheat and corn eat?* At first we thought this was a childish question indeed, but on a little reflection we find it a wise question in a childish form, and one that cannot, in the present state of agricultural science, be so readily answered

That the wheat and corn crop, like every other, must be sustained by certain elements, is evident to all, but what those elements are, in regard to corn at least, has not yet been ascertained.

We have several times made an abstract of the reports which different chemists have given of the analysis of wheat, in their researches, in regard to the ingredients of this valuable grain. At the risk of using a repetition, though we hope not a vain repetition, we shall again give some statements on the subject.

The Royal Agricultural Society, of England, having funds sufficient for the purpose, employ chemists, from time to time, to analyze crops, soils, manures, &c. Some time since they employed Mr. Way, an excellent chemist, in this business. The question submitted to him, was, in substance, what inorganic material does an average crop of wheat take from the land? Or, in the more simple language of the child, *what does the wheat eat?*

After analyzing at out fifty specimens, of different sorts of wheat, he found that what might be called an average crop. took from the land the following: 84 lbs. of silica (flint). 20 lbs. of phosphoric acid, 4 lbs. of sulphuric acid, 8 ibs. of lime, 6 lbs. of magnesia, 1 lb. of peroxide of iron, 23 lbs. of potash, 1½ lb. of soda. These are the inorganic substances; or, in other words, the mineral substances which the "*wheat eats;*" and as we eat the wheat, these are the mineral matters which we eat, though they are so combined as to become palatable food, and not *dust* to our mouths.

Well if this is what the wheat eats, it is important that every field of wheat that we sow, should have enough to eat.

The greater part of the above ingredients, you will see, is flint, which gives to straw and the coat of the grain, its peculiar gloss and durability. The phosphoric acid and the alkalies are supplied by manures of different kinds. Bone dust, for instance, being made or obtained from animals that eat grain or something that contains it, will, if applied to the crop, supply it again with phosphoric acid. Ashes will afford the potash. Plaster affords the lime—and the soil generally affords the silica or flinty matter; or it may be taken from the ashes of plants.

But besides these mineral or inorganic matters, wheat eats what are called organized substances, or such matters as have been a part and parcel of some organized being, either of the animal or vegetable kingdom. The principal of these are carbon (charcoal) and nitrogen. These are obtained from animal or vegetable substances applied as manure. These organic substances, when the plant is burned, fly off into the air in the form of smoke and gases.

What does the corn eat? Here we are not able to answer so definitely, because there has not as yet been so complete and thorough analysis made of Indian corn as of wheat. We mean, of the stalk, leaves, roots, husks, kernel, cob and all. It is evident, however, that it contains as many kinds of inorganic or mineral matter as wheat, but the proportions must vary from them essentially.

It is also evident that it contains a greater proportion of organic matter than the wheat does. Its body is larger—stem larger and more filled with carbonaceous matter—its leaves vastly larger—its roots more spreading and extensive, and the cob also containing much carbonaceous and alkaline matter. Hence one reason why it bears high manuring with animal matters, so much better than wheat.—Still, no accurate analysis has yet been made. by which we are informed how much it *eats*—or, in other words, what amount of inorganic substances an average crop of Indian corn takes from the land.

If any of you ascertain soon, we should be happy to hear from you.—[Maine Farmer.