

preparation, the Mangel seed was sown, and speedily vegetated. There were but few weeds to hoe, for the salt had attacked the principal vitality in the seed of the annual, as it lay secreted in the clod, as well as that of the Couch Grass. and the mangels grew to be a finer crop than ever before flourished upon the same plot of land. The foliage was thoroughly vigorous, and the bulbs were remarkably well matured and sound. The weight per acre reached 25 tons—when before the maximum had been 20 tons—by the aid of several loads of dung and an immense amount of labour.

"The following year, upon a field of the same character, I tried the same experiment, varying the course of management in some degree. I applied, in October, 12 cwt. of salt, upon the upturned and weedy surface of that land destined for the root crop, and allowed it there to lie and do its silent work as before, until, in February, the soil was dry enough to allow of being worked. As in the first instance, the result perfectly justified the means. Together with the frosts of winter, the salt had performed wonders in breaking down the stubborn clods and compacted, livery furrow slices. The soil was reduced to powder, and the weeds were generally dead, so that the Mangel, which was planted in a finely pulverised seed bed, had nothing to do but to grow without the rivalry of weeds—neither shaded by them from the sun, nor robbed by them of the nourishment purposely stored for their use. I said, however, that I introduced some change into my practice this second time. The change was as follows, Just after the last furrow was, I sowed 4 cwt. more salt, which I harrowed in before the seed was dibbled. The result proved the wisdom of the addition, I have reason to think—for the weeds were even fewer, the foliage of the Mangel was finer, and the bulbs were larger than in the former case, where the application of salt was merely made in the autumn.

"It strikes me that our Mangels are freed also from another enemy by the use of salt. I mean insects. Slugs and wire worm, both very destructive during certain seasons, are certainly banished by salt, if not killed."—*Rural New Yorker*.

On Economizing the Liquid Manure of Towns.

For a long time it has been known that if the liquid excrements of towns and cities could be collected and applied to the land, that the health of the people and the produce of the soil would be greatly improved. Considerable difficulty, however, of a practical nature, continues to be experienced in this matter, and the benefits which science so clearly points out

have, as yet, been but very partially realized. This is not simply a question belonging to the denser populated countries of Europe, but it has a practical application and importance to all our larger towns in Canada. In the following correspondence between Mr. Chapman of Nottingham, and Walter Fyfe, the Agricultural Chemist, the readers will find much that is of an interesting and suggestive character.

MY DEAR FYFE.—Knowing that you not only take an interest in the advancement of agriculture as a science, but have considerable practical knowledge in relation thereto, I wish to have your opinion and advice on a matter which has engaged my attention for some few months. Perhaps you are not aware that, since you left this part of the country, we have erected a number of public urinaries, which are used by very great number of people—one in particular near our post office, affords accommodation about 2,000 persons daily. Now the value of human urine as a manure is universally admitted. If my memory serves me, Liebig (no mean authority) considers it to be the richest and most valuable of all liquid manures. He states that 'one pound of human urine is sufficient manure for one pound of wheat.' Then why should such valuable manure be wasted? At the single urinal I have named there is daily wasted an amount of manure that would, if collected and distributed on the land, produce 1,000 pounds of wheat. But the mere loss of this valuable material is not the only evil; for it passes into the sewers, then to our streams, rendering them disgustingly offensive, and will if the evil be not checked, ultimately deprive us of our fresh water fish. We are sending to the other hemisphere for the sands of tons of guano annually, the chief use of which, as a manure, is its ammoniacal salts. But need we continue to incur this great expense? I reply, no! emphatically, no! When we reflect that, at one public urinal alone, in the town of Nottingham, there is worse than was every day the manure that would produce 1,000 pounds of wheat, what quantity of this valuable material must there be lost amongst a population of nearly 100,000 people? If the urine of the United Kingdom were to be economized, how we send to the other hemisphere for guano? I shall endeavour to get some enterprising farmer in our neighbourhood to assist me in my scheme, which I shall lay before the town council as soon as I have obtained sufficient evidence to make out a good case. Can you give me any ideas or suggestions? My scheme is very simple. It is merely to construct large tanks in connection with all public urinaries, with a valve to be closed during the daily process of cleansing, which valve will shut out the water, and when the tank is full, pump out the liquid, and immediately put it on the land or compost heap. I should advise that the tanks be so large