EARTH WORMS—MOULD.

From the Genesee Farmer.

The increasing number of earth worms (*lumbricus terrestris*) in the cultivated parts of our country, has drawn the attention of many farmers to the subject, and elicited some inquiries as to the effect of their presence in such numbers in soils that are cropped. The opinion of some seems to be, that while they confine themselves to the soil, they are harmless, if not actually beneficial. Loudon says that this worm, "unless existing in great numbers in a single place, cannot be ranked among injurious animals, notwithstanding the prejudices of farmers and gardeners against them. Without worms, the earth would soon become hard, cold, incapable of receiving moisture, or of giving nourishment to roots. They are, in fact, the great promoters of vegetation, by boring, perforating, and loosening the soil beneath, and by manuring it above with their excrement, which is thrown up into lumps called worm casts." It is to this latter process, the throwing upon the surface of these casts, or excrementitious matters, as they are supposed to be, that some modern writers have attributed the formation of mould, or that part of the earth which is of the most value in supporting vegetation.

Mr. C. Darwin, F. G. S., in a paper read before the London Society in 1837, was the first, we believe, to reduce this theory to a form, by an explanation of the manner in which this worm is supposed to produce the results attributed to it. His attention was called to an examination of the process by finding that some fields over which lime and cinders had been spread on grass land, and which had never been ploughed, were found, after intervals of twelve or fifteen years, to have these coarse materials covered with mould to the depth of three inches.

'This layer (of cinders and lime) was in some places so continuous, that the superficial mould was only attached to the red clay subsoil by the longer roots of the grass.'

"On carefully examining between the blades of grass, in the fields above mentioned, the author found that there was scarcely a space of two inches square, without a little heap of the cylindrical castings of worms. It is well known that worms swallow earthy matter, and that having separated the serviceable portion, they eject the remainder at the mouth of their burrows."

With all deference to the opinions of Messrs. Loudon and Darwin, we are disposed to dissent from both, and believe that the earth worm is more or less injurious, according to its numbers; and

that the agency it has in the production of mould is very limited, if indeed it is sensibly felt at all.

We imagine the opinions of practical farmers and gardeners in matters that belong purely to observation and fact, are entitled to great respect, however unable they may be to give reasons or philosophize on such facts. Now we have never known a farmer or gardener that did not consider the earth worm a nuisance; and scarcely one that did not think that they were exhausters of the nutritive qualities of the soil in which they abound. That they bring earth to the surface cannot be denied, but that such earth is rendered more valuable by being divested of its nutritive qualities (or 'serviceable portion' of Mr. D.) in its passage through the worm, may well be questioned. Nothing, it seems, is added to the earth; the matter on which the worm subsists is taken from it; and from the circumstances in which the worm is found, and propagates in the greatest numbers, it seems plain, that the parts of the soil the most essential to plants, are precisely those on which the worm exists. We have no evidence that the worm is injurious by attacking or feeding on the roots of plants; the injury is effected by diverting from them the nourishment they would otherwise receive. Different kinds of vitality cannot well exist in the vicinity of each other; it is a law of nature, that the weaker and less perfectly organized, must give way to that which is higher in the scale, and hence the roots of plants are illy fitted to contend with the more voracious lumbricus.

We are equally skeptical, as to the alleged fact of our being indebted to the earth worm for the mould with which the face of the earth is covered. We think such is not the case, because no where is the richest mould more plentiful than in places where an earth worm was never known to exist. New countries are notoriously destitute of earth worms. Every one who remembers the original soil of this country when the forest were first removed, will recollect the abundance of mould, and the total absence, except in some few places, of the earth worm. We loved to fish in those boyish days, (we have not entirely lost the relish yet,) and well remember the difficulties we were compelled to encounter in procuring worms for bait. They then existed only in little miry spring spots near the lakes, and old, black looking, antediluvian fellows they were. They first began to make their appearance some ten years after the settlement of the country, around barns, and in yards where manure and animal matter kept the earth rich and moist, and they have now in some places taken possession in millions of our lowlands, gardens, &c. Places heavily manured are the most infested by them, as the young worms, or the ova, are brought with the manure applied. Instances are recorded in this journal, in which these worms have so accumulated around houses and in wells, as to render the water unfit for use. Their presence in wells is to be accounted for from the habits of the animal. When there has been a summer shower towards evening, as soon as it is dusk the worms issue from their burrows, throwing up numerous casts in clearing their holes from the washings of the rain, and creep in every direction over the surface. Penetrating every opening where moisture exists, the well serves as a trap for them, and in such openings they accumulate till necessity compels the owner to clear out his well, and thus free himself for a time from the nuisance. Where they appear in such numbers, close curbing and banking is required to shut them out.

Quick lime would undoubtedly destroy them, could it be applied to them in that state; but ensconsed in their burrows, lime spread on the surface does not reach them. Perhaps applying it pretty liberally along the walks of a garden, or between the rows of plants, after a shower, and while the worms were on the surface, might kill some of them; but probably the most effectual remedy will be ploughing so late that the ground will freeze hard immediately after the work is done; and using no manure that has not been piled and heated by fermentation to such a degree as to destroy what worms and eggs may be existing in the mass.

SILK CULTURE COMMENCED IN UPPER CANADA, BY A LADY.

By the following letter it will be perceived that the silk culture has reached Canada, and has found, at least, *one* active and efficient practical advocate. We wish there were *many such*,—and from the zeal manifested by the lady writer, we have no doubt that we shall, ere long, be gratified with the intelligence, that others, are following the example of our fair pioneer, in this laudable enterprise. Should the Canadas become a silk growing country, (and we see no reason why they may not,) this lady will have the proud satisfaction of being the prime mover, and patroness of this elegant and useful production, and her fellow citizens must unanimously pronounce, that she "has deserved well of her adopted country."—*Ed. S. C.*

St. Thomas, U. C. May 6th, 1839.

F. G. Comstock, Esq.—*Sir*:—From the interest you feel in the culture of silk, and the pains you take to diffuse knowledge in every branch of it throughout the United States, I presume you will not be entirely indifferent to a solitary experiment in Upper Canada. Frigidity seems to be associated with the very name of Canada—even Canadians themselves imagine that the climate north of the lakes is not congenial to the mulberry tree, except the black, of which there are fine trees in the forest, which are transplanted for the fruit. Five years since, I sowed the first seed, (I suppose,) that was ever deposited in Canadian soil, in full faith, that it would do well. I offered seed to others, and assured them, that where Indian corn would grow, that the mulberry would, (and more plentiful crops I have never seen in any part of the United States I have been in, than are here produced,) and that if the culture of silk could be made a profitable business in Vermont and Maine, it certainly could here; but one person only, has been induced to sow the seed, and he has a fine nursery of fourteen or fifteen thousand trees, from seed planted two years ago. The profit was no object with me, my premises being too circumscribed to realize any thing in that way. Last summer, I had the satisfaction of demonstrating that both the climate and soil of Upper Canada are congenial to the culture of silk, and the pleasure of exhibiting to all who had the curiosity to call, the first silk-worms reared and the first silk made, from the first mulberry trees cultivated in either of the provinces; and feel myself amply paid for time and cost, in having been