

adopted the use of *soda-ash*, I suffered sometimes to the amount of *SIXTY IN A FIELD*! The discovery was accidental; I had sown a headland with it as a fertilizer, on the principle laid down by Sir Humphrey Davy, that all alkalis were stimulants to plants; it certainly improved the crop, but upon the whole, I considered it a failure. The following spring it was *turnips*, and a man hoeing asked me, "If anything had been done to the headland?"

I asked him "Why?" He said, "*There was not a plant destroyed by wireworms, and the rest of the field had fifteen to a nest.*" I then determined to try it upon another field which was full of wireworms; I have never since seen one in it. In the following year, I had twenty-five acres of oats attacked more generally; I happened to have a cask by me, and ordered it to be sown. From that day the ravages ceased, and within a week the whole field had changed its color to a vivid green. I have since ceased to consider it as an experiment, and have always a cask by me ready, in case of any appearance of the *wire-worm*, and have not a patch as large as my hand suffering from wireworm on my farm." This is no vain boast; I have known *soda* tried by practical men, who were most unwilling, unless actually coerced into it, to listen to any novelty, and they have unanimously asserted the success of their experiments with *soda*. It is equally efficacious in repelling the attacks of the *green-fly*, which, from its ravages and the difficulty that has been experienced hitherto in getting rid of it, might, though the insects are of different species, very fairly be entitled the twin-brother of the *wire-worm*.

In gardens, that most certain of remedies, *hand-picking*, may be resorted to. Lettuces are, as I have stated, among the most frequent sufferers; let, therefore, the earth be gently scraped away from about the roots of such as are affected, the worms removed, and the earth then as gently returned. *Hand-picking* may also be resorted to in the case of young *turnips*, and in such fields as are bordered by a marsh; for it is in the immediate vicinity of the marsh that these worms will be found to congregate in the greatest numbers. In gardens, the *wire-worm* may also be attacked, and destroyed by means of poison and traps; the former will answer for the worm, and the latter for his parent, the beetle, or elater. For poison—slice potato stalk, or turnip, or parsnip, or carrot, or even marigold, or beet-root—take a feather, and dip it in a solution of corrosive sublimate, dissolved in alcohol, or spirits, then lightly touch the bait with the feather, and having allowed the spirit to escape by evaporation, stick the bait into the loose soil, near such

plants as had previously indicated the presence of the worm. This remedy is of course peculiarly suited to *gardens*, but it may nevertheless be adopted by the farmer with some success. Birds also consume immense quantities of these worms; as also do frogs, toads, and those beautiful little creatures resembling the lizard in form, but differing from that class of animal in being furnished with gills, like a tadpole, during the earlier stages of its existence. I allude to the *Water Eft*, or *Newt*, which, at certain seasons, leaves the water, and, emerging upon the land, makes great havoc among many of our insect pests.

This reminds me that the frog is often unjustly persecuted by gardeners, under the idea that it eats or spoils their *strawberries*. Nothing can be more erroneous. I, myself, conceiving it allowable to sacrifice one or two lives in order to save many thousands, killed and opened several frogs, and did not find any portion of strawberry in their stomachs, but invariably *numbers* of insects. I have spoken to many intelligent gardeners on this subject, and have found my opinions confirmed. Let frogs and toads, therefore, be encouraged in your lands—recollect that the fabled character of the toad is only a tissue of nonsense; that the animal's entire food consists of *insects*, of such creatures as you are most anxious to destroy. Call them in, therefore, to your assistance—protect them, regard them as your friends and fellow laborers, and they will aid you most extensively. The robin, blackbird, wag-tail, thrush, together with poultry, and rooks, &c., feed on these insects; but it is for you to consider whether these birds are likely, by their destruction of insects, to compensate for the damage they themselves personally do to your crops.

### PLOUGHING DECLIVITIES.

The first consideration to be taken into account when land has thus to be laid out in ridges, is the direction of the inclination most likely to facilitate the drainage of moisture from the furrow, and such a one should be adopted, unless there are good reasons for preferring some others. But where this point is quite immaterial, the ridges should be traced from north to south, in order that grain on each side of them may enjoy nearly equal advantages from the influence of the sun's rays; otherwise the vegetation of those parts, inclining towards the north, will be much more backward than that on those which face the south. Were it not for this, it would be better to plough from east to west, because the soil then receives the rays of the sun more vertically, so long as it remains in the state in which it was left by the plough, and profits more by their influence.