

seed-bed, are, a larger amount of active soil, in which the roots of plants find nourishment, the absorption of a larger amount of air and moisture, and consequently a much smaller risk of suffering from the effects of drought." Yet, sir, there is another point in deep plowing which is not often mooted by its advocates, and that is the advantages of a deep loose porous bed of quagmire, to which all *heavy* lands are subject in the alternations of frost and thaw, which the last winter presented; and every practical farmer must have noticed the tender state of his wheat fields on the abrupt breaking up of the frost; and if the thaw continues a day or two only, with a severe night, when the earth, if bare, again freezes, the young plants must feel, and severely too, the sudden change; the roots, even if struck to the bottom of the heavy quagmire, cannot withstand the action of the frost upon a soil surcharged with water, now of course converted into ice, and the plants lifted the full depth of the watery soil and at the next thaw lifted above ground, or as the term is, "Hove out." That this has been the case with many thousands of acres in my locality, present appearances too plainly indicate, and where deep plowing has been practised so much the worse is the wheat; and as the winters are becoming more and more alternating, the advantages of deep culture, will be, at least, problematical. A plant hove out and killed by the frost, can receive no benefit during summer growth; and as a walk over the wheat lands presents the simple fact, that without plants, no crop, and as the frost has destroyed three-fourths of mine after a regular practice of deep plowing, may it not be wisdom to plow three inches, instead of six; a bed of soil of three inches will be more enriched by a given quantity of manure, plowed with much less labour, and give the frost a much less chance of lifting the wheat plant.

For forty years light plowing has been my guiding principle in both England and Canada, and crops fully equal, often superior to those around have rewarded my labours. In *Stewart's Three Years residence in America*, published years before deep plowing or subsoiling became fashionable, mention is made of a farmer (whose name I do not now recollect), who raised crops with plowing three inches, which have not been surpassed (if equalled) in this boasted age of book-learning and agricultural inquiry. The mind of the editor appears somewhat sceptical in the advantages of deep ploughing in all soils and localities, and likely the result after a fair trial will be that upon a firm dry subsoil deep plowing and subsoiling will be advantageous, on heavy clays with an impervious subsoil, it will be other-

wise; and all cultivators of such lands will act wisely to test by experiments on a limited scale the *profit* of turning over six or eight inches of poor heavy clay, when three will often bring much better crops.

Mr. Cooke thinks a fallow every fourth year twice plowed, scarified—and harrowed, with a flock of sheep as an antidote to weeds, is as good a mode of cultivation as any other; and in this we are perfectly agreed, as the plants when sown will have a firmer soil than when three or more times plowed: yet might not the whole of the fallow be sown to *clover* with advantage? Land light enough for corn or root crops, requires less of fallow; clover cannot be dispensed with on heavy clays, if *profit* is the object sought for.

If farmers wish a "plum-pudding" or, "sugar in their tea" such a "will-of-the-wisp" as protection will give it only to a *few* of her Majesty's subjects; while *all* who labour would be highly gratified with a plum-pudding for their Christmas dinner, and the sooner free-trade is the word of action, the sooner *all* will rejoice in a plum-cake, in addition to a pudding.

If Mr. C. will read *Adam Smith's Wealth of Nations*, and other writers on political economy, he will find that as governments have nothing to sell, being consumers instead of producers, they can in no degree influence production, which is the farmer's peculiar province all over the world; and is it right, just and necessary, that a custom-house officer should stand between him and his customer, to levy a duty in which *he only participates*, and his customer is obliged to give up his christmas pudding for the benefit of those idlers who are always willing to amuse the farmer with protection, and rob the one of his cake and the other of his pudding, for their own especial benefit? We are told in a late paper that the customs realized in one week £40,000. Now I ask *who pays?* *Production* is the watch-word of all agricultural periodicals, while *distribution*, is a mysterious secret, known far better to those who receive than to those who pay; and if Canada is so far advanced as to establish agricultural schools, let this mystery (*distribution*) be fully elucidated. All boys can harness horses, drive team, plow, &c., if raised on a farm; and I trust that matters involving active intelligence will be *primary*, not the secondary objects taught in such institutions, and thus qualifying the pupils for the Town-meeting, the municipal Hall, and the Legislature; and then farmers will arise to represent farmers, and leave lawyers and doctors in the free use of their time in attending to their own individual and professional concerns; we may then have fewer five