

A child can comprehend that, under these circumstances, a very productive field, in order to remain *very* productive, or even simply productive, must have the elements which had been withdrawn in the harvests perfectly restored; that the aggregate of the conditions must remain, in order to produce the aggregate results, and that a well, however deep it may be, which receives no supply of water, must in the end become empty, if its water is constantly pumped out. Our fields are like this well of water. For centuries these elements which are indispensable to the reproduction of the field crops, have been taken from the soil in those crops, and that too, without being restored. It has only recently been ascertained how small a supply of these elements the soil really has. A beginning has been made to restore to the fields the loss which they sustain through the annual harvests, by introducing from external sources manures containing the same elements. Only a very few of the better informed farmers perceive the necessity of this restoration, and those of them who have the means have zealously endeavored to increase the amount of these elements in their fields; but by far the greater part of them know nothing of such restoration—they think that they may continue to take from the field as long as there is anything left, and that it will be time enough to provide for this necessity when it knocks at their doors. They do not of course know how large their stock on hand is, nor are they aware that when the necessity shows itself, there will then be no means to meet it. They know not that what they have wasted is irretrievable.

The loss of these elements is brought about by the "sewerage system of towns." Of all the elements of the fields, which, in their products in the shape of corn and meat, are carried into the cities and there consumed, nothing, or as good as nothing, returns to the fields. It is clear that if these elements were collected without loss, and every year restored to the fields, they would then retain the power to furnish every year to the cities the same quantity of corn and meat; and it is equally clear that if the fields do not receive back these elements, agriculture must gradually cease. In regard to the utility of the avails of the "sewerage of towns" as manures, no agriculturist, and scarcely an intelligent man, has any doubt; but as to their necessity, opinions are very various.

Many are of the opinion that corn, meat and manures, are wares, which like other wares, can be purchased in the market;

that with the demand the price may perhaps rise; but this will also stimulate the production, and that all turns upon having the means to purchase, and so long as England has coal and iron she can exchange the products of her industry for the corn, meat and manure which she has not. In this respect I think it would be wise not to be too confident of the future, for the time may perhaps, come, even in half a century, that not one of those countries upon whose excess England has hitherto drawn, will be able to supply her with corn, and that too, from the natural law, that what is true of the smallest piece of ground is true also of a great country—it ceases to produce corn if the conditions of the reproduction of the corn which has been carried off are not restored to it. Nor, furthermore, is it certain whether the corn-growing lands will always desire to exchange their corn for the products of English industry, since they may no longer need those products, or at least not in the ratio of England's need of corn. In the countries of Europe, and in the United States of North America, great efforts are made to become in this respect independent of England, as being in the end the only way of keeping up the corn prices in these countries, so as to repay the labor of the people.

In the United States the population increases at a still greater ratio than in other countries, while the corn production upon the land under cultivation has constantly fallen off.

History teaches that not one of all those countries which have produced corn for other lands have remained corn markets, and England has contributed her full share towards rendering unproductive the best lands of the United States, which have supplied her with corn, precisely as old Rome robbed Sardinia, Sicily and the rich lands of the African coast of their fertility.

Finally, it is impossible in civilized countries to raise the corn production beyond a certain limit, and this limit has become so narrow that our fields are no longer capable of a higher yield without an increase of their effective elements by the introduction of manures from abroad. By means of the application of guano and bones, the farmer of most limited capacity learns the real meaning of such increase; he learns that the pure system of stall or home-made manures is a true and genuine robbing system. In consequence of his restoring in the guano and bones but a small portion of the very same elements of seeds and of fodder which had been with