

for the Henfield factory are only a small fraction of the entire amount. In Munich alone one thousand two hundred and fifty tons of bones are annually procured, which for greater part are exported as fast as they can be obtained; and I believe I am right in estimating the sum total of bones exported from Bavaria at something like six thousand thalers a year. Large as this quantity may appear, it is yet no more than what is imported every two years into the one district of Bautzen, in the kingdom of Saxony. With each hundred weight of bone powder, however, the essential conditions for the reproduction of two thousand six hundred pounds of wheat are withdrawn from the Bavarian fields, thus running up the annual loss of corn to one hundred and fifty thousand tons. Still, the loss in this particular is only a small fraction of the agricultural requisites wasted in the towns by the supineness of the authorities and the indifference of the inhabitants. For centuries past considerable wealth has accumulated in Bavaria from the exportation of corn—the country, in accordance with a law of nature, losing in the value of its soil what it gains in silver and gold. It is asserted that even now the annual crops of Bavaria exceed 34,500,000 cwt., which is the amount required for the sustenance of its population; but I believe that, if the statistical data collected were more exact than they are, the boast would appear to be founded upon an error. At all events, it is impossible for the surplus production to continue for any length of time, the diminution beginning directly upon the attainment of the extreme limits. The preservation of prosperity in a country essentially depends upon keeping open its sources, and Bavaria, as an agricultural country, is more than any other German provinces interested in maintaining its fields at the due standard of fertility, which as I have said, is very much the reverse of what is actually the case. The greatest danger in all these things is to ascribe any value to the opinions of the farmers themselves, many thousands of whom are neither able to judge the qualities of their soils, nor to account, correctly and scientifically, for the results of their cultivation.

“There is nobody knows the sum total of nutritive elements in the soil, and it is but thoughtless to suppose it to be inexhaustible. What the soil really includes, I repeat, nobody knows; though what it yields everyone may easily ascertain for himself. The great object in view is not to extort the greatest possible quantity out of the soil, but to learn to economise our resources. A boy may calculate the amount of productive power left in a field after a hundred years, even though only one-half per cent of its original value should be annually taken out of it; but the addition of this half per cent a year, if he would learn to provide for it, would make it yield the same crop for another hundred years, and, in fact, for an un-

limited time. Suppose only one-fourth of the essential conditions for the reproduction of corn to be annually lost in Bavaria, the sum of this deficit in one hundred years amounts to no less than \$60,000,000 cwt. No land is rich enough to make up for its waste after a certain time; and even though it were sufficiently wealthy to purchase all the manure required for the purpose, there would be no market at which it might be obtained. It is all the more difficult to employ the right medicine against the chronic malady eating away the heart of the European populations, inasmuch as the patient does not believe in the existence of the disease. The populations of Europe resemble a man suffering from consumption, whose looking-glass offers him the deceitful image of health, and he only complains of a feeling of fatigue in his limbs. The agriculturist of the day equally complains of some little fatigue in his fields; but for the rest, considers them sound in wind and limb. The consumptive patient thinks that a little wine would restore him to his former condition; but, if he takes it, the progress of his malady is only accelerated. The agriculturist of the day being equally of opinion that a little guano would do his fields good, in most cases only brings them nearer the day of utter exhaustion. Years pass by before an insolvent husbandman may be actually obliged to declare bankruptcy; and it is not before he has impoverished all his friends and relatives, and carried his last silver spoon to the pawnbroker, that he abandons the deceptive hope of a change for the better. The gradual reduction of the peoples of Europe to a condition of impoverishment and depopulation is also a slow process, growing on for centuries for its ultimate consummation; yet, the day is marked down when in all European countries the children will experience that they have to suffer for the sins of their fathers. No nation has contrived to continue its existence, unless it knew how to preserve the conditions physically essential to its sustenance; and all those countries of the globe where the fields had not had restored to them by the hand of man the elements necessary for the return of crops, we may follow in their downward course from a period of the densest population to the ultimate condition of barrenness and desolation. It is vain to hope that a field in Greece, in Ireland, Spain, or Italy, which is known to have once yielded abundant harvests, will ever return anything like them, even though subjected to the highest cultivation. Emigration from Ireland must continue for a century longer, and never will it be possible for the population of Spain or Greece to exceed a certain and very limited number. Great Britain deprives all countries of the conditions of their fertility. It has raked up the battle-fields of Leipsic, Waterloo, and the Crimea; it has consumed the bones of many generations accumulated in the catacombs of Sicily; and now annually destroys