

more attention was paid to this subject more corn might be grown.

The Chinese cultivate their soil up to the very summit of their hills, being saving of all manures, even the shaving of their heads and beards; they have wide drilled and dibbled crops, being very saving in seed and using the hoe much amongst the growing crops. Their saving disposition in respect to all excrementitious matters necessarily would prevent any waste of the liquid matters from manure yards, so generally allowed in this country, for experience would teach them that the liquid contains the salts of potash and ammonia, so essential for the growth of vegetables. The Chinese are said to be a century before us in husbandry, if we are many centuries before them in other arts and sciences. If they were not good managers of their soil, they would not be able to feed so populous a nation within themselves as they now do; they are independent of foreign climes for their daily wants, although their population is considered to equal in number all Europe. Protectionists would wish Britain to be like the Chinese—*independent*. To do this more care is required than is at present practised, a better knowledge of nature and or principles is necessary to be known and then only may we hope to see the three great desired points mastered, viz., *an increase quantity, a superior quality, and a great saving in the expenses*. These points gained are very far preferable to any legislative enactments for making corn scarce and therefore of more money value. There is no work of the present day so likely to lead to the successes above pointed out, as that of Morton's Cyclopaedia of Agriculture, as it combines the theory—the practice, and the business of farming.

A sandy soil is the most easily worked on the surface whilst the crop is progressing; an aration, for the admittance of aqueous particles which are deposited in every clear night, as the moisture cannot be held in the atmosphere if there are no clouds to prevent the condensation at the surface. This moisture should be permitted to reach the root of plants; if the surface remains hard and uncultivated, it will soon be covered with weeds, mosses, or green fungi, the growing crop cannot then obtain what is wanted, and any moisture that falls is again soon taken up by the sun's rays or by currents of air.

A sand soil will not hold the moisture like unto clay or lime, or those earths united as a marl, hence the necessity of a sandy soil being more cultivated on the surface, that the roots may soon take up the aqueous particles and hold them for their own wants so far as is necessary; and by having an open subsoil, superfluous moisture will go down, be there retained for future wants, rising by capillary attraction to supply the evaporation of the surface.

The manures best calculated for a sandy soil to impart permanent food to vegetation, may be valued in the following order:—1st, marl having equal proportions of lime and clay; 2nd, gypsum

united with phosphate of lime; 3rd, refuse lime from a soap boiler, united with the salts of potash and soda. All these earths and alkalis and acids added together would be the very best as a mendment in perpetuity. As a prompt dressing, the litter from under fattening pigs is the very best for some vegetable growths, and old rotten yard manure for other vegetation. Another source or pabulum for future crops may be had recourse to by ploughing in a green crop, such as rape, which might be sown in the spring for wheat food in the autumn; turnips may be used as a pabulum for beans or peas in the spring; buck wheat or tares in the like way may be buried for any future crop.

All the grasses take up much silica as may be proved by drawing the blades between the lips: the rushes, heaths, ling, horse-tail, all flourish in the sands, some of the clovers and the yellow lotus or bird's foot clover is particularly indigenous to the bare sands.

A variety of the *equisetum* or horse-tail is brought to this country from Holland called "Dutch rush," which contains so much of fine silicious particles, that it is used as a polishing article for mahogany and other hard woods.

Most of the fir trees flourish in the deep sands, obtaining their carbon through their leaves from the atmosphere. These trees will flourish luxuriantly if the ground is broken deeply for them, so that they be provided with the means of going downwards, as well laterally for nourishment. Mr. Withers, of Norfolk, has strenuously advocated the necessity of a continual cultivation amongst plantations of trees, he having succeeded most admirably by so doing in a poor sandy soil; he also advocated the manuring of ground previous to any plantation being made.

I have on a former occasion remarked that the capitalist who will take a tract of the poor sands which exist within thirty miles of London, in Surrey, Hants, or Berks, and apply right principles to the cultivations, is more deserving of monuments to his memory than if he had been the gainer of a hundred battles. That person would be a real patriot to his country, having subdued the stubbornness of the earth, using it as a means for the conveyance of a pabulum for raising man's food, and much more worthy of notice than those who cultivate an alluvial rich soil, which has already a full charge of vegetable food. There is little merit in those who make guineas out of gold dust, compared to those who make the gold out of a baser metal. It would be like the mind of man holding within his subordination the matter of the universe, an alchemist that extracts food for man and beast out of the debris, abraded from the quartz rock, is indeed worthy of honours—

"Of more than earth make none partake.
But knowledge makes the man most like his Maker."

An oasis in the desert has lately been made on the sandy waste, near to Fleet Pond Station, on the S. W. Railway, a spot that had heretofore