

Cromwell at the battle of Dunbar, and Dutch prisoners, taken by Blake in his action with Tromp, were set to work on this great effort at land reclamation. After Cromwell's death, the works languished; but by the exertions of the Earl of Bedford, a charter was obtained from Charles II, and the 'Corporation of the Bedford Level' established in 1644. This body still exists; and to their able management are due the gradual improvements which have ever since taken place.

The opposition encountered by the early adventurers abated as the economic results of their labours became apparent; and attempts to reclaim different portions of the fens were made by other parties. The attempts, however, were rendered in a great measure abortive, by neglecting the outfalls of the river into the sea; the waters, not having free vent, were thrown back upon the interior, and there remained but to adopt the alternative of mechanical drainage. First a few horse-mills, and afterwards a vast number of windmills, were employed to raise the water; but all proved unavailing, until the powerful and continuous aid of steam was called into operation. At the present time there are from 40 to 50 steam-engines and 250 windmills working at the fens. The consequence is, that vast tracts of ground, once swampy and dotted over with pools, have been reclaimed and brought under cultivation. A powerful steam-engine is pumping the water out of Whittlesey Mere, which spreads over 1000 acres; and Holm Fen, which, a few years since, was a reed shoal of 5000 acres, now produces crops of excellent wheat. Ugg Mere is changed into productive fields; and Ramsay Mere, 560 acres, 'which once grew enormous quantities of long reeds (used for thatching in the neighbouring counties,) now comprises three farms of beautiful land, on a higher level than the surrounding fen. And this mere has now farm-buildings built upon its bed, a good gravel road running through the middle of it, and produces fine crops of wheat and oats.'

As a necessary consequence, the value of lands has increased with the march of improvement. Farms which, thirty years ago, were bought at £5 per acre, are now worth seven or eight times as much. The annual rental of 1000 acres near Harncastle, in what is now one of the richest districts, was at one time less than £10. Now the fertility and productiveness of the Great Level have become proverbial—for crops and cattle there are few places which excel it. Some of its productions—such as wood and peppermint—are peculiar to the district; and recently a Yorkshire company have taken a considerable tract of some of the best land on lease for the cultivation of chicory. Within the last seven years the farms and pastures have been still further improved by underdraining; and the peaty soil, as it becomes drier, subsides from two to three feet, and is rendered more fruitful by the compression. Clay is found throughout the level, at various depths below the surface, and has been largely taken advantage of for admixture with the lighter soil. The excavations made from time to time have brought to light many evidences of the former state of the fens—whole forests of oak and fir lying flat, with the roads yet firmly imbedded in the subjacent earth, remains of boats and habitations, farming implements and tools; and in one singular instance a meadow was exposed with the swaths of grass still ranged on the surface as they fell under the scythe. The discovery of these relics at different depths leads to the conclusion that the Level was at one time a vast

estuary, in which the sea at different epochs has deposited layers of silt.

The presidency of the Bedford Level Corporation has devolved upon several eminent noblemen from the time of Francis, Earl of Bedford, to the present time. The company appoint a registrar and receiver-general of the taxes levied for the maintenance of works, and an engineer. The latter employs a superintendent, with a staff of sluice-keepers and labourers, whose duty it is to attend to the outfalls and make the necessary repairs. He is authorised to prevent the mooring of vessels in improper situations, or the deposition of any impediment that may retard the flow of the water. For the latter purpose he is furnished with rakes and other implements for the periodical weeding and clearing of the rivers. Each division of the Level has its superintendent and subordinate staff. The sluice-keepers are required to be on the watch night and day to close the gates against the flood-tide, and open them at the ebb, by which means the channels are scoured out. They have also to see that boats pass through the gates according to the established regulations, and to keep a daily account of the depth of the water on the sill of the sluice, recording floods or any other unusual rise.

The embanking up of the water-courses has brought a most important means of fertilisation within reach of the fen-farmers, known as 'warping.' This consists in flooding the lands one or two feet deep, by opening sluices placed for the purpose, and allowing the water to remain until all the mud in suspension is deposited before it is again drawn off. In this way any number of inches of a most valuable fertiliser may be spread over the land, with but little trouble or expense, and with a most remunerative effect. Such is the quantity of mud brought down by the rivers which traverse the fens, that the operation of warping is continually and naturally going on at their *embouchures* to an extent scarcely credible. According to Sir John Rennie, on the Nene channel the deposit was fourteen feet, and on the Ouse twenty-five feet perpendicular, in about six years. The quantity, however, varies according to situations, but two feet per annum appears to be no unusual amount. This circumstance has led to the taking in of many hundreds of acres from the sea. The first plant that makes its appearance on the new lands is the marsh samphire, which is soon followed by 'sea-wheat' (*Triticum repens*) and grasses. 'Experience has shown,' observes a writer in the Agricultural Society's Journal, to whose Report we are indebted for several particulars, 'that the ground ought to be covered by nature with samphire or other plants, or with grass, before an attempt is made to embank it.'

Similar reclamations are taking place at the outfall of the Welland, where the stream at present is compelled in a tortuous course by mud banks. The method adopted is to straighten the channel of the river by placing 'two rows of bush fagots, perhaps fifty yards in advance on the mud, at low water, on each side of the river. After a few tides these fagot heaps are found full of 'warp,' a mixture of fine sand and mud, which renders them in some degree solid; another tier of fagots is then laid upon the first, and is again embodied with them by the warp. This kind of embankment is continued in a straight line over sand and through water, or across the old bed of the river, the fagots being sunk in the water and bedded in the soft mud, by means of earth, &c., thrown upon them out of boats. One row