

always advanced before the other on that side which will most impede the current of the river; the tide, in coming up, overflows this weak fence, filling it with silt, and making it so strong, that the ebb water is unable to remove such an obstacle from its course, and is compelled to dig out a new channel through the sandbank in the intended direction. In this way the dykes are advanced, taking care to keep the 'scour' the foremost, and a new deep channel is worn by the water.'

The most beneficial improvements yet effected in the draining of the fens are the new outfall of the Nene at Wisbeach, and that of the Ouse, by what is called the Eau Brink Cut, at Lynn. The former of these works cost £200,000; but by making the necessary embankments, more than ten thousand acres were gained from the sea, besides the promise of future increase. For no sooner is a barrier bank raised, than the sea begins immediately to throw down a deposit at its foot. In this way the outside of some banks is elevated higher than the inside. By the $2\frac{1}{2}$ miles of the Eau Brink Cut, the work of the late Mr. Rennie, the last circuitous bends of the Ouse, stretching double that distance, are avoided. The cost was £160,000: a good part of the sum was wasted in defeating the opposition offered to the bill authorising the work in its passage through parliament. After the opening of the new cutting in 1821, its utility became so obvious, that five years afterwards, it was rendered still more serviceable by widening.

In 1751, a grand and comprehensive scheme was proposed by Mr. Kierdesley for uniting the rivers flowing into the Wash in one common channel, and conveying them away into deep water. The project, a most masterly one, has been since then occasionally revived, but no active measures taken to carry it into execution. In 1839, Sir J. Rennie drew up a report on the subject, demonstrating its entire practicability. The proposal is to straighten and embank the outfalls of the Nene, Ouse, Witham, and Welland—to conduct them to the centre of the Wash by a grand system of barrier banks, which will give an additional fall of six feet, and thus secure a channel that shall keep itself clear, and at the same time more effectually drain the interior; besides which, it would offer a safe roadstead for vessels. There is now reason to hope that the project so long in abeyance will be realised. The leading men of the latter town will subscribe £120,000 towards the undertaking; and it is understood that application for the necessary powers will be made to the next session of parliament. Seventy thousand acres of the Wash are already left dry at low water; but should this scheme be carried into effect, the number of acres reclaimed will be 150,000—a territory larger than some of our present counties—for which the name of Victoria Level has been proposed. The cost of reclaiming is estimated at £17 an acre, while the land, when gained, will be worth £60 per acre. According to one of the calculations, in 1862 the shareholders will be receiving 4 per cent in addition to the repayment of the whole of their capital. Such a work as this is quite in accordance with the engineering intelligence and capacity of the age, of which it will remain a monument, stamped with a higher character than the great undertakings of antiquity—that of utility. When completed, we may hope that other portions of the island will receive the same attention. For example,

the Solway Firth, Morecambe Bay, the Leven and Duddon Sands, all of which, if reclaimed, would add largely to the resources of the empire. A somewhat similar project is contemplated by their neighbours the Dutch in connection with a railway from Flushing to Middleburg, and across the islands of Walcheren and Beveland, to unite with a line on the mainland. At the narrowest part of the Sloe—the channel between the two islands—embankments or jetties have been carried some distance into the water, round which the conflicting tidal currents of the East and West Scheldt have deposited such a thickness of silt, that Mr. G. Rennie, on making a professional inspection of the place, found the channel fordable at low water, and recommended the carrying of the embankment entirely across, by which means it is calculated 40,000 acres will be naturally reclaimed in the course of six years, and be worth £40 an acre. The Dutch authorities have not yet determined on the project, but we think they cannot reject so desirable an acquisition of territory, especially as the railway will assist in restoring to Middleburg a share of its former prosperity. We cannot conclude our notice of the great level of the fens better than in the words of Sir John Rennie's report:—'If ever the undertaking should be carried into effect, not only will the drainage and navigation of an extensive district, bordering on the rivers Ouse, Nene, Welland, and Witham, and the Great Wash, and comprising little short of a million acres of land, be greatly improved, and thus their power of production be greatly augmented, which alone is worthy of considerable sacrifice to obtain, but an entire new district, containing 150,000 acres of valuable land (which is half as large again as the entire county of Rutland, which contains only 95,000 acres) may be added to the kingdom. It will, I trust, be admitted that few enterprises, if any, have offered a more satisfactory prospect, whether regarded in light or profit to the individual or to the community at large, and such as ought to command attention.'



HOMES AND DWELLINGS

OF THE HUMBLER CLASSES.

"The searching inquiries of the commissioners appointed to report on the health of towns have clearly demonstrated that the rate of mortality is greatly increased in those localities which are densely crowded, undrained, badly ventilated, and imperfectly supplied with water. An investigation of the sanitary condition of nearly one hundred of our principal cities and towns traces the same results to the same causes, so that the evidence adduced admits of no refutation. In the cellars of Liverpool and Manchester, in the wynds of Glasgow, in the courts and alleys of London, typhus constantly is present; and the dwellings of the poor in these districts are the abodes of pestilence and epidemics. The sole property of the workman being his labour, and that labour being suspended when health is deranged, the sanitary question branches out into a financial question; and Dr. Southwood Smith has justly remarked that of all taxes, the heaviest is the fever tax. To those, then, who have few or no sympathies with their humbler brethren, and are deaf to the calls of humanity, we must apply the argument derived from the pressure of poor rates, and appeal from benevolence to cupidity;