

of fen land in Lincolnshire and Cambridgeshire, and the warp or silt lands on the Trent, Aire, Ouse, and Derwent. The latter cases are very instructive, because, by studying in connection the operation of the sea on the coast of Holderness, and in the tributaries of the Humber, we see very plainly an important benefit arising from the enormous waste of that ill-fated coast ( $2\frac{1}{4}$  yards per annum for 30 miles from Kilnsea near Spurn Point to Bridlington). The mean height of this wasting cliff being taken at only 10 yards, the total quantity of fine sediment, coarse sand, pebbles and boulders, falling into the sea in one year =  $(1760 \times 30) \times (10 \times 2\frac{1}{4}) = 1,188,000$  cubic yards. Now, though not all this mass of sediment must be supposed to enter the Humber, a considerable portion of it does, and is turned to good account by the industrious and intelligent inhabitants, in the practice of warping. This consists essentially in admitting the muddy waters of the tide at its height, and especially in spring tides, to flow through proper channels over the low land adjoining the rivers, so that by stagnation it may drop its sediment, and again be returned to the Humber. By frequent repetition of this simple process, the hollow places near the rivers which are connected with the large estuary of the Humber are filled up, and thousands of acres of land raised in level one foot, or eighteen inches; and by the addition of most excellent soil augmented in value from a mere trifle to above the average of the country. The annual waste of the Holderness coast alone would cover to the depth of one foot 3,564,000 yards, or about 737 acres. It is often imagined that all the "warp" of the Yorkshire rivers descends with the fresh waters: this is so far from the fact that it is in dry seasons, when the freshes which bring no sediment do not dilute the rich tide water, that the process is most successful. The quantity of sediment contained in the water in a dry summer is great, and chokes the channel of the Dunabout Thorne; but in winter the floods clear it away.