

phorus or straits, more than forty feet wide and twenty deep.

What is meant by the cleansing power of a current can now be understood

It would doubtless be desirable to ascertain the precise influences which were at work in producing the effect in the case just mentioned, and in the other instances which the Commissioners have had occasion to observe—the operation of assisting winds and weather to the ordinary face of the water—and the particular resistance which each stratum of soil offered to the attacking wave. In the absence of this information, which they had no means of acquiring, they have contented themselves with locating certain of their connecting lines, in courses parallel with a *ditch* as these half artificial, half natural canals are called, with a view to verify and repeat the experiment, before similar masses of water, affected by identical winds, in a kindred soil, and altogether under circumstances either analogous or the same. Of their hopes of success, founded on such a position of affairs, they need hardly speak.

4. Another principle, which they may appear to some at some expence to have followed, is, that if any dependence is ever to be placed upon the cutting power of water, which they have mentioned, it is when the course of the currents, uninterrupted by eddying elbows, is directly straight, and where the waters are left the most freely to the operation of their own weight, and assisted most easily by the prevailing winds from either end of the strait. In conformity with this, which appeared to them of the utmost importance, they have in some cases left the marshy bed of the creek or stream to strike this fast land; thus, by a very simple calculation, balancing the quantity of force in the natural agent they were desirous to enlist, by the mode of its action, and assisting the weakness of a current by giving to it greater directness, and submitting it to the action of fewer diverting or retroverting causes.

Indeed, in the connections which were in some places to be made across necks of land between the heads of creeks, flowing in contrary directions, and where it was of course necessary to pass through firm land, they have been governed entirely by this principle. In other cases, where there was reason to expect a strong current, and where required by the foundation for a tow-