

COFFERDAMS.

By means of the ordinary instruments for sub-marine operations, exact measurements of the bed of the river, where it is proposed to sink the foundations and works about them, are to be made.

Crib work is then to be arranged so as to fit the rocks and surface as nearly as possible.

A general plan of the proposed dam is represented on sheet N^o. 5, Fig. 1.

Fig. 2, is a longitudinal section of the same. Fig. 3. is a cross section. The other figures represent the details of construction.

It is to be built on the shore the same as cribs for piers, and hauled into place by suitable means worked by capstans on it. It is to be loaded down into place by stones thrown into compartments.

The entire system will consist of crib-work framing, forming three cellular compartments. The outside and inside ones are for the purpose of containing the ballast, and for strength to the whole. The centre compartment is to contain a puddle bank, as represented.

The clay forming the puddling is to be placed between sheet piling, which is secured to the crib work.

Braces as represented in the detached Fig. 5, will keep the two systems of crib work at proper distances from each other until such, when the braces are to be taken out as the work of filling in progresses in order that there shall be no "water lead" of any kind through the bank. The clay is to be ten feet thick and the cribs are to be twelve feet wide. A suitable framing to stiffen the whole system is to be built in it, from side to side, and to remain in place until found in the way of the masonry of the towers.

By means of trunks with valves at the lower end the