working, thich the ewinter, pressure I solidity en made

To construct the inverts and Caisson birth as per plan, they would have to be placed on the concerte flooring, already mentioned, which in term overlies a soft bottom composed of fine sand intermixed with sawdust, and is therefore not a safe and sufficient foundation on which to build the important work just mentioned.

plans of

ıe coffer-

eastern

e whole

nultane-

iey had tc., were

et plans.

position

ind was

cement

teration

d, were

e found

mpts to

"extra

settled

cked in

ay and

hich it

g from

s been

neces-

course,

future,

th the

nce its owing

ere the

a coffer-

Having had careful measurements made I have found that by shifting the entrance works inwards a distance of 30 ft., they can by founded on the *solid rock*, which rises abruptly, and I have so arranged the work done this fall that this change can be made.

As per plan, the length of the dock from the face of the Caisson to the circular head is 549 ft.; by shifting the entrance works 30 ft. this length will be reduced to 519 ft. a length long enough to accomodate any vessel which can pass over the sill of the dock. The "Circassian" (which is 465 ft. in length over all and is, I believe, the longest steamer or vessel frequenting the port) could therefore as regards length be accomodated in the dock at this reduced length: the "Parisian" of the same line having a length of 440 feet over all.

The future success and usefulness of the dock entirely depends upon the perfect stability of the outer and inner inverts, and the rigidness of the Caisson berth; for it must be borne in mind that a small and apparently insignificant settlement in any of the outer works would cause two difficulties to arise.

1. A jamming or sticking of the Caisson, and, 2, the destruction of the perfectly watertight joint which must at all times exist between the meeting faces of the Caisson and its berth, without which the dock cannot be kept dry.

For the avoidance of failure and to ensure a successful working in the future I have decided to move the entrance works 30 feet inwards so as to place them on a solid rock foundation, which action I trust will meet the approval of your Board.

From your accountant I have obtained a statement of the amount which has been expended to the 15th inst., in connexion with the construction of this dock, which I place in the following form:

## Larkin, Connolly & Co.

Contract work	\$214,104	33			
Latra-dock Droper	28 067	00			
Auxiliary dam	110 001	73			
Cement delivered	4,200	00	100	1	
			\$373,873	98	