

"I have now to report that on Wednesday, and Thursday, the 14th and 15th instant, (May), attempts were made to "pump out" the area enclosed by the works and dam as per contract and the auxiliary dam, which resulted in a failure in the "concrete flooring" at points where it joined the rock to withstand a pressure due to a head of 15½ feet, and I had to direct the pumping to cease, as the pump in position was not sufficient to pump against any greater head, nor was it desirable to continue because, with the influx of water, quantities of sand and pure gravel were brought in, evidently from under the concrete flooring, the tendency of which was to weaken if not to destroy the purpose for which it has been put in.

"The area enclosed was however pumped dry enough to enable me to locate the position of the "blow holes" and to determine the volume of water they permitted to enter. I was also able to see the bottom, the state it is in and the position of the rock.

"In the Report alluded to herein, I stated the reasons why it was desirable to shift the "Entrance Works" 30 feet inwards, so that they might have a bearing on the rock. The examination made last week showed that shifting them thus would *not* place them on the rock, and that the "blow holes," which will have to be stopped or enclosed, are directly under the flushing culvert leading to the caisson chamber and under the north wall of the chamber itself, and that the *solid rock* lies to a greater distance inwards.

"I have previously stated that the Dock as originally designed was 549 feet in length between the face of the caisson and the circular head and that, by shifting the entrance works 30 feet inwards, the length would be reduced to 519 feet, a length long enough to accommodate any vessel which can *pass over* the Dock Sill, and I instanced the "Circassian" which is 465 feet in length as being the longest steamer frequenting the port.

"To insure the efficiency and future usefulness of the Dock, and to place the entrance works on the solid rock, it will be necessary to shift them inwards a further distance of 25 feet, thus reducing the length of the Dock to 495 feet, which would be still long enough to accommodate the "Circassian."

"In view of the great benefits which will arise by shifting the entrance works a further distance of 25 feet inwards and the completion of the Dock this year, I have to state that I have, after mature consideration, decided upon making the change in question and I now submit my action for the approval of the Board.

"In connection with this matter I would state that if, at a future date, it be found that the Dock is too short to accommodate the class of vessels then frequenting the port, it can be easily and cheaply lengthened by extending it from the southern end."