

his treatment, and it is to be hoped that his experience will be made public for the benefit of future works.

The fact remains, however, that the effects of compressed air on the human system constitute the principal difficulty attending deep pneumatic foundations. Men are somewhat difficult to get, wages are high, and the time of labor becomes so short that the work must necessarily be done under a disadvantage and under an immense amount of supervision, where it is at all difficult or different from ordinary digging in a uniform material.

Besides two general foremen and fifteen under-bosses, it required the daily attendance of both Col. Paine and Mr. Collingwood, assisted occasionally by Mr. Martin and Mr. McNulty, to keep matters moving smoothly below and in conjunction with affairs above.

An ingenious mechanical telegraph, contrived by Col. Paine, proved of great assistance in keeping up communication between the upper and lower world.

GAS.

The ordinary street gas has been the only agent used for illumination. Sixty burners, divided among the six chambers, gave all the light required. The gas was burned under a pressure of one or two pounds in excess of the caisson pressure, and was at all times uniform and plentiful in supply.

A gas pump above forced the gas steadily into the tank below, and as the latter would fill with gas it raised the column of water in the tank above, where, at a certain stage, a float controlled the throttle-valve of the gas pump, and thus regulated the supply of gas within restricted limits,—the whole arrangement being self-acting.

One interesting fact was observed which may possibly be new, and that is, that in compressed air all gas-lights become sensitive flames, answering to the stroke of a hammer on a piece of iron, or even to tones of the voice.