anything. He then got the bottom doors off, first the after bottom door and then the forward one. He could not see anything through the after door, but on looking in the forward bottom door he saw blood on the sides of the furnaces—that is, he explains there was some fresh blood as if running down on the side of the centre and wing furnace near to the forward end of the boiler. This was at 7.45 a.m. The boiler was allowed to cool down, and in about four hours the body of the third engineer was got out. It was found lying on two of the longitudinal stays close to the forward end plate, and opposite the manhole. The door was found on the top of the tubes almost underneath the body, and one of the dogs beside it; both of the studs in the door were bent and a small piece of rope was fastened to one of the studs. A spanner was found on the top of the combustion-box girders—that is, halfway between the manhole and the position of the body, and a lamp, hammer, and chisel and broom-head or brush were found in the bottom of the boiler. When the body was got out it was found that the skull was fractured, and that the skin where exposed peeled off when rubbed. A surgeon certified that the skull was fractured, but does not appear to have examined the whole body, contenting himself with seeing sufficient cause for the man's death. The master, however, says that the arms and shoulders looked to him as if seriously injured or broken, and that there was a deep mark on the forehead and the clothing torn in places.

The foregoing statement contains the important points of the case so far as we can gather them. We both have entered the boiler, examined the manhole and door, had the exact position where the body was found pointed out, and also that of the door, &c., and spanner. The whole story appears straightforward and is easily realized, but the causes which brought the body of the third engineer to the position where it was found are not so readily explained. Accepting the statements of the master, engineers, and firemen (and we have no reason for doubting them), it is clear that the third engineer either (1) got into the boiler of his own accord, (2) was put in by others, or (3) met his death accidently by causes unforeseen and unnoticed, and which no one contributed to except himself, and that unknowingly. The first two causes must, it appears to us, be dismissed—the position of the body and the statement as to the high temperature of the boiler and other reasons rendering them absolutely inadmissible; and after considering the whole circumstances of the case, we are of opinion that the death of the third engineer was brought about in the following manner:—

The boilers were blown down and left, neither safety-valves nor cocks were opened (the chief engineer says he gave instructions to open the gauge-cocks, but found them shut), so that when the steam condensed there would be a vacuum in the boilers. The manhole is in the after end plate; there is a small platform almost in a line with the door. The deceased took off both the nuts without starting the door, one dog was taken off, the other turned partly round, a piece of small rope (which the second engineer says was very weak stuff) was fastened to one of the studs of the door and to the gauge-glass stand. He then stooped down in almost a lying position, probably holding the door by one of the studs, or by the rope, with one hand, and perhaps tapping it with the spanner in the other hand, when the door started, was suddenly driven inwards by the pressure of the atmosphere with great force, the rope broke, and the deceased, involuntarily tightening his grip on the stud or rope, was drawn into the boiler—the inrush of air assisting this movement, as his body became near to or partly filled the hole—and he was propelled with such violence as to fracture his skull on the other end of the boiler, or it may be by striking the plate at the manhole as his head was entering it.

This explanation, which from its singularity may at first appear somewhat doubtful, is the only one which we think fits all the known facts of the case, such as: the short interval which elapsed between the time when the fireman Spiloni left the third engineer and his return to the manhole; the short time from starting work at 7 a.m. until the report was heard fifteen minutes later; the sudden disappearance of the third engineer; the condition and position of the body when found; the position of the door, spanner, &c; and also the high temperature of the boiler.

It certainly appears extraordinary that a man could be drawn into a boiler through a manhole with such force as to fracture his skull on the end plate, 16 ft. from the hole, and in a direct line with it, but the stays would form a sort of guide to keep the door and body travelling in a horizontal and direct line, and it may be added that the deceased was not a big man. He is said to have been about 10 stone in weight, and 5 ft. 5 in. high. It can be seen by examination of the small platform at the manhole that the occurrence is at least quite possible. At any rate, unless the whole story is disbelieved, a manhole door weighing 85 lb. was found along with the body of the third engineer, close to the end plate furthest from the manhole, and had been in that position for some hours and from a time when the condition of the boiler was such that no one would have entered it, or could have lived therein.

We wish to add that, although death under the above circumstances is probably unprecedented, the violent inrush of a manhole door due to vacuum in the boiler has been frequently experienced. A case somewhat analogous occurred in one of the steamers of the ——— Line, which hearing about, we inquired as to the facts from the superintendent, who kindly sent a letter describing the case, a copy of which is given below.*

We have inquired in reference to the circumstances of this case of the master, first and second engineers, Spiloni, and the other men. The firemen are Greeks, and understand very little English. The present third engineer, who is a native of Smyrna, and can speak English and Greek, acted as interpreter.

The area of the manhole, 16¼ in. by 12¼ in., is about 156 square inches, and assuming a temperature of about 180 degrees in the boiler, there might exist an external pressure of 7 lb. per square inch, which, if suddenly applied, would exert a force of 1,092 lb.—at any rate sufficient force would be exerted to set up a high velocity on the door when suddenly relieved.

** Copy of Letter above referred to.*

Referring to our conversation this morning relative to the death of an engineer in a boiler on board a British steamer at Smyrna, it affords me some pleasure to give you the details of an almost similar occurrence on board one of the steamers of the ——— Line some few years ago. They are as follows:—

The vessel arrived on a Saturday evening, and it being necessary to get the men in the boiler at the earliest possible moment for cleaning purposes, one of the junior engineers was ordered to the ship on