ART. X.—*Case of Rupture of the Pulmonary Artery.* By
MR WILLIAM GUNN, Assistant-Surgeon, Royal Navy.

JOHN WHITE, seaman, aged 46, was put upon the sick list this morning, complaining of pain in the head, principally on the right side, extending down the neck and arm to the hand, which was benumbed. He says he has been unwell for some time; that he has been restless at night, and not by any means so able for his duty as formerly. He has a slight cold, which commenced a few days ago; but he feels no pain in the chest, either on coughing or making a full inspiration. His bowels are rather inclined to constipation. He says that he feels little appetite for food; and some of his messmates have since informed me, that, for some considerable time past, they have observed him eat very little, and that with no apparent relish. They have also been forcibly struck with the marked difference in his health and strength of late, yet he never made any particular complaint; and in answer to their inquiries regarding his health, he would state, that "he felt unwell, yet could not say what was the matter with him." His pulse is weak, but quite regular; tongue dry, and a little furred; countenance sallow, and expressive of anxiety. There is also a particular vacancy observed about the eyes, which appear to have lost all their animation. A dose of salts was ordered to be taken immediately, and a diaphoretic at bed-time. The right arm and hand to be well rubbed with volatile liniment.

In two days afterwards the purgative and diaphoretic were again repeated, which relieved all the symptoms.

6th of June.—He appeared this morning at the visit, when he said that he felt much better, and wished to go to his duty; he was accordingly discharged from the sick list.

In the afternoon he was carried into the sick birth in a state of insensibility; his body was covered with a clammy perspiration; and his extremities were cold. There was no pulse to be felt at the wrist or temple, and, on applying the hand to the chest, the heart's action could not be perceived. Respiration was very hurried and irregular; the mouth was widely open, and surrounded with foam; and the lips were livid. By degrees the respiration became more hurried and faint, and he continued to gasp for a few minutes, when he expired.

I learned from those who had brought him into the sick birth that he had been engaged in some duty, which required considerable exertion, on the bowsprit, and that, without complaining of feeling ill, he was heard to utter a groan, and seen to fall backwards, and, if those who were near him had not taken hold

of him, he must have fallen in the water ; they then carried him into the birth in the state mentioned. He had not spoken any before I had seen him, nor did he afterwards.

Dissection.—About ten hours after death the body was examined by our excellent surgeon, Mr John Bell, my friend, Mr J. Wallace, and myself. As the cause of his death was supposed to exist in the chest, our attention was directed there, and, on removing the sternum, the left side of the thorax was found to be completely filled with blood more or less coagulated, and the lung was collapsed from the pressure of that fluid. On removing the clotted blood from the cavity of the thorax, we discovered a rupture in the pulmonary artery, about an inch and a half from its origin in the right ventricle, large enough to admit the point of the little finger. A piece of the vessel, about two inches in length, was then detached from its connections. Upon slitting up the side of the vessel, opposite to that on which the rupture has taken place, we perceived that there was a circular spot of the artery nearly the size of a shilling much diseased, and that the rupture was situate exactly in the centre of this diseased portion. The muscular and internal coats of the vessel were completely destroyed, and nothing remained but the external tunic, which was thin and of a brown dusky appearance, clearly showing that it was diseased in structure.

There was no line of elevation or distinction to be observed upon the internal surface of the vessel to mark the exact spot where the destruction of the internal and middle coats had ceased to extend, but, by holding this portion of the vessel up to a lighted candle, the disease was distinctly seen to be of the extent and appearance stated above.

The piece of ruptured vessel was of an angular form, having its base still attached, so that when laid down in its natural situation it covered the opening as a valve.

As the cause of his death was so distinctly seen in the thorax, we considered it unnecessary to examine any of the other cavities.

Remarks.—Although there was destruction of the internal and middle coats of the artery, yet it does not appear that this was a case of aneurism, for there was no dilatation of the vessel, no sac formed, nor any coagulated blood deposited.

This disease of the vessel must have existed for some time ; and when we consider how thin and transparent the external coat was, it is surprising that rupture did not take place sooner ; yet this tunic possesses considerable strength, and, from the manner in which its fibres are mixed, it is rendered so firm that even after the destruction of the two inner coats, it remains a sufficient obstacle to prevent the blood from escaping, in the

same manner as the peritonæal covering of the intestinal canal presents a powerful barrier to the escape of fæcal matters, even when the mucous and muscular coats of the intestines are completely destroyed.

Though the external coat was found to be so thin at death, yet it is probable that this melancholy event would not have happened so soon if the man had not been exposed to some violent exertion.

His sallow countenance and dejected appearance might perhaps, on his first application, have led us to suppose that some organic disease existed; yet this emaciation did not appear to be more than might be expected to be met with in a man at his time of life, especially in a sailor, whose habits most likely were intemperate and irregular. The heart was found quite healthy; and this may account for the regularity of the pulse.

H. M. S. Spartiate, in the River

Tagus, 2d June 1827.

ART. XI.—*Thoughts on Contagion, and its effects on the organs of the Living Body.* By THOMAS MASTERMAN WINTERBOTTOM, M. D. (*Concluded from No. 97, p. 344.*)

IF typhus fever be occasioned by inflammation of the brain or its membranes, it is scarcely to be conceived possible how a single patient could escape the treatment generally followed a few years ago, of exhibiting bark and port-wine so profusely, that many patients were kept for days in a state bordering upon intoxication. Though this may be said to be the extreme of the practice, if the fever had been so acute a disease as *encephalitis*,* can we suppose it possible that without any evacuation, scarcely even of the bowels, under such stimulating treatment, it could be protracted to fourteen or twenty-one days, and even then, not unfrequently, terminate in health. Moreover, the appearances on dissection are extremely various in typhus. In many instances, no trace of injury is observed in parts to which, during life, the greatest pain is referred, so that it is impossible to foretell, with any degree of certainty, any one organic lesion, previous to inspection.† The intelligent Friedereich,‡ justly remarks, that typhus often arises after inter-

* Hildenbrand, *Ratio Medendi in Schola Pract. Vindobonensi*, pars ii. p. 94.

† Schneider, in his valuable work on typhus, remarks, that the dissection of typhus cases often discovers considerable inflammation and even gangrene in the viscera, though not indicated during life by any local pain which could excite such a suspicion. These inflammations, he adds, do not occasion typhus, but are produced by it.

‡ Entzündung d. endem. charakter im Würzburg.