

previous to the 7th January, he had succeeded in getting a certificate of inability to work from one surgeon, which had been refused to be countersigned by another better known to fame, on the ground, after examination, that he was perfectly able for work; and, in revenge, he had gone and worked most manfully, with the view of injuring a joint he knew to be weak, and thus excite compassion—fortunately he failed.

ARTICLE IV.—*An Account of the Epidemic Yellow Fever on board H.M.S. "Highflyer" in 1852.* By J. WATSON, M.D., Surgeon R.N., Royal Naval Hospital, Jamaica.

H.M. steam ship "Highflyer," reputed to be a very fine vessel of her class, and remarkably well ventilated, arrived at Port Royal, Jamaica, from Europe, on the 20th October 1852, where she remained until the 28th, the shipping and town of Port Royal being at the time, and long previously, quite free from fever.

On the day last named, the steamer proceeded to sea, and anchored at the Havanna on the 3d November, where yellow fever existed, but not extensively, among the shipping and in the town. She remained there until the 19th November, when she sailed for St Thomas, which she reached on the 30th. At this time epidemic yellow fever raged with the utmost malignancy at St Thomas, and it had been communicated, in a fatal form, to several of the R.M.S.P. Company's vessels.

The merchant vessels were lashed alongside the "Highflyer" to coal her, positive orders being given that no communication should be held between the "Highflyer's" people and those of the merchant ships. It appears this order was not strictly observed, as medical aid was requested by the master of one of them—the "Art Union"—for his crew, who were all "down" with fever, and it was rendered by the medical officers of the "Highflyer." This, however, appears to have been the extent of the direct communication between the parties.

The "Highflyer" having completed her coaling, sailed at one P.M. of the 2d December from St Thomas, where she had remained exactly two days and seven hours.

While at the Havanna the officers frequented the town daily, as they also did at St Thomas; but the crew was not permitted to land at either place, unless when employed on duty in boats between the ship and the shore.

Proceeding from St Thomas, the "Highflyer" anchored at Trinidad on the 6th of December, where no fever existed at the time, and remained there until one P.M. of the 17th December. While at Trinidad she was joined by the flag-ship "Cumberland," from which she received two assistant-surgeons and a captain. Both of the for-

mer were speedily attacked with fever after they joined, and one of them died with black vomit. At one P.M. of the 17th December, the "Highflyer" proceeded to sea; the day following touched at Grenada, where she remained only nine hours, and then prosecuted her voyage to this port, where she arrived on the 23d December.

From the time of the "Highflyer's" arrival within the limits of the West India station, to that of her departure from St Thomas, no case of fever of any kind had been entered on the sick list; but on the 4th December, two days after her departure from St Thomas, and fifteen after leaving the Havanna, a stoker was attacked with fever; on the 5th, six of the crew took fever, one of whom died with black vomit. From this time up to that of the "Highflyer's" arrival at Port Royal, on the 23d December, the disease continued its ravages until the number attacked of men and officers amounted to forty-three. When she arrived at Port Royal, the sick then on board were sent to hospital. Eight fresh cases occurred in the harbour up to the 27th December, and were also sent to hospital, when the disease entirely ceased on board.

Altogether fifty-one men and officers were attacked—viz., thirty-eight men and boys, of whom three died—eight per cent. Thirteen officers, of whom four died—thirty per cent. The captain, an assistant-surgeon, a clerk, and the gunner, died.

It will thus be seen that the mortality was much greater among the officers relatively to their numbers, than it was among the crew of the ship. It is also to be observed, that the total mortality and the number of attacks are much more limited than they have usually been, in ships of the "Highflyer's" complement, which have become subject to yellow fever on this station, after the disease assumed the epidemic form.

The above statement comprehends all the material facts which I have been able to collect respecting the disease on board the "Highflyer."

It cannot be reasonably doubted that the "Highflyer's" people received the germs of the malignant yellow fever, either at the Havanna or St Thomas, and in all probability at the latter. It is also equally clear, that the disease became localised in the ship, which afterwards became pestiferous to persons joining her. The death of the assistant-surgeon, with the characteristic symptoms of yellow fever, sufficiently proves this.

The great and most important practical question arises, Is it safe to permit the sick persons from such a vessel as the "Highflyer" to be landed among a healthy community? This question was put to me, and, fortified in the opinion at which I had arrived by the results of many similar experiments in this place, I recommended that there should be no interruption to the "Highflyer's" people communicating with the shore, but intimated that it would be dangerous for strangers to be exposed to the atmosphere of the ship, so long as the disease continued in her. There has been no interrup-



tion to the communication of the "Highflyer's" officers and men with the shore. Her sick have been in proximity with a considerable number of surgical cases from other ships, in the hospital, and with a large proportion of the crew of the "Persian," affected with a malarious fever. The surgeon, and the two assistant-surgeons, of the hospital are in hourly attendance. The former has been frequently exposed to the influence of epidemic yellow fever, but never had the disease, whereas the two latter never saw a case of the disease previously. The result of this experiment of exposing so many persons, who may be fairly presumed to be susceptible to the contagion of yellow fever to direct communication with the disease, has been, so far as it goes, highly adverse to the imposition of quarantine in such cases; for no single instance of any kind of fever followed the landing of the "Highflyer's" sick, or the free intercourse of the officers, stewards, and people with the town, either in the hospital or in the town.

It has excited considerable surprise here to learn that the R.M.S.P. Company's ship "Plata" was subjected to quarantine on her arrival in England, because she had yellow fever on board, after quarantine measures have been denounced as inefficient by the Central Board of Health. Reflecting on the rapid and constant intercourse which now takes place between England and the countries where yellow fever is endemic, bearing in mind, too, the atrocity of confining people in a pest-ship, in places where no proper houses are prepared for their reception, and the manifold annoyances which must accompany necessary or unnecessary quarantine, I have made the above representation, which proves, that in the instance of the "Highflyer" no harm resulted from landing persons who were in the worst stage of the malady. Such examples will encourage the advocates of the more humane system of dealing with such epidemics, as furnishing evidence of the uselessness of quarantine.

Without dogmatically asserting that yellow fever is never, under any circumstances, contagious, I have witnessed and watched the progress of so many epidemics in this place, as to feel perfectly satisfied that any contagious powers the disease may possess in crowded ships, is speedily rendered inoperative by moderately good ventilation; and that the best mode of checking the progress of such diseases, is to remove the sick to roomy quarters on shore as speedily as possible.

NAVAL HOSPITAL, JAMAICA,  
10th January 1853.

27th January 1853.—It has been ascertained here, since the above was written, that while the "Highflyer" remained at Trinidad, she was visited for a few hours by the marine officer of the "Calypso," and by the surgeon of that ship, and that both these officers were in a few days attacked with malignant fever, the former having died in

his cabin on board with black vomit; and the latter, after remaining in the "Calypso," ill with the disease about two days, was landed, and died on shore.

These facts confirm the position asserted above, that the "Highflyer" became pestiferous, and proves the extreme danger to be apprehended if strangers are exposed to the morbid influence which prevails on board such vessels. But even under the most favourable conditions for the extension of the disease by contagion, it is remarkable, that though the two officers mentioned caught the disease on board the "Highflyer," and both were confined in the "Calypso," in communication with their messmates and shipmates for several days, and until one of them died with black vomit, no other individual on board the "Calypso" took the disease. I am also informed by Dr Chamberlain, the old experienced health officer, that patients affected with yellow fever were landed in lodging-houses in Kingston from the company's ships, and that the disease did not extend to a single individual there.

These facts, in addition to those embodied in the present report, clearly prove to my mind, that, however dangerous it may be to visit places or ships affected with epidemic yellow fever, there is no danger whatever in abolishing quarantine, if the sick be removed to well-ventilated quarters on shore. To enable the disease to prevail, extensively in any community, it appears that the unknown and mysterious SOMETHING, which we call epidemic influence, must be present. I am indebted to Mr M. Swinney, surgeon, R.N., for the facts respecting the progress of the disease in the "Highflyer," who was in medical charge of the ship then as assistant-surgeon, and who was afterwards deservedly promoted for his zealous conduct at that time.

J. W.

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ARTICLE V.—*On the Danger of Gutta Percha Bougies.* By JAMES SYME, Esq., Professor of Clinical Surgery.

In the month of August last, Dr Macfarlane, of Glasgow, recommended to my care a gentleman who had been so unfortunate as to break a bougie in his bladder. It appeared that the patient had suffered from a stricture, and been accustomed to palliate the symptoms by introducing instruments. In going to his shooting quarters in the Highlands, he employed for this purpose one of some gutta percha bougies, which had remained there since the preceding season, and did not remark anything particular until he attempted to withdraw it, when only a small portion came away. With some difficulty a further portion was extracted from the urethra; but as Dr Macfarlane found, by introducing a sound, that there was a piece in the bladder, he sent the patient to me.

The presence of the stricture forbidding any hope of extracting