

eight were reported on the sick-list. These affections were imputed to the damp and wet weather which we had experienced after leaving the Straits of Sunda.

As we were making our passage across the Indian Ocean in those months during which hurricanes most prevail, some little anxiety was felt on this account; and as we neared the longitude of the Mauritius, the appearances of the weather were carefully scanned. On the 16th, signs of a change in the weather were evident; there was also a fall in the barometer, and we encountered a heavy and rising swell from the southward and westward, which continued for about seventy miles. So well defined were the waves, and so large, it satisfied me they were caused by a violent gale blowing at no great distance from us. On the 17th, we passed for fifty miles through swells from the southward and eastward, and of the same character as those seen on the day before. I made many endeavours to measure the velocity of these waves, and their altitudes, and found the former to be from twelve to twenty miles per hour, and the latter about eighteen feet: I was not satisfied, however, that these measurements were quite accurate, nor was there sufficient opportunity to render them so.

On the 20th, we had fine weather until noon, at which time the wind shifted to the northward. This change was accompanied by a fall of the barometer, and every other indication that we were about to experience one of the phenomena peculiar to this ocean. Every preparation was made to encounter the bad weather whose approach the wind and sea indicated. The barometer gradually fell from 30 inches to 29·89, ·85, ·83, ·81, ·80, ·79, in six hours; it then remained stationary for three hours, afterwards rose one-tenth of an inch, again fell to 29·79, and remained at that height for more than twenty-four hours. During this time the sea changed its direction, and set heavily from the westward, causing the ship to pitch deeply. We had a light wind from the same quarter for several hours, which afterwards veered to the southward and eastward, enabling us again to lay our course. The height of the waves last spoken of, as determined by a mean of several measurements, was about twenty-three feet, and their mean velocity about twenty-five miles per hour; but some of them, which I lost the opportunity of measuring, were certainly higher.

On the 23d, Benjamin Vanderford, master's mate, died. During the cruise, I had often experienced his usefulness, and now regretted his loss. He had formerly been in command of various ships sailing from Salem, and had made many voyages to the Feejee Islands. During our stay there he was particularly useful in superintending