

VIII.

EXTRACT OF A LETTER FROM GEO. BURADER TO THE REV. W. MILLS, RELATING TO A REMARKABLE PHENOMENON OF THE TIDES, AT THE HARBOUR OF PAGO-PAGO, ISLAND OF TUTUILA.

WEDNESDAY, November 7th, 1837, 2^h 20^m P. M. the tide rose suddenly to two feet above high-water mark, spring tide.

At 2^h 30^m, sunk to low-water mark, neap tide.

At 2^h 35^m, rose as high as at first.

At 2^h 40^m, sunk to low-water mark, spring tide; immediately rushed in again with great violence, and with such rapidity, that in two minutes it was as much as three feet higher than it had been before. Receded with equal force, and at 2^h 52^m had sunk a great deal below low-water mark.

At 2^h 55^m rose again as high as before; receded about eighteen inches, and suddenly rushed in again to the same height as at the third time.

At 3^h 3^m it was high, and at 3^h 6 $\frac{1}{2}$ ^m it was much lower than it had been before.

At 3^h 12^m it rose again to the same height as at 3^h 3^m; receded suddenly one foot, and at 3^h 17 $\frac{1}{2}$ ^m rose again nearly as high as at the third time.

At 3^h 20^m, sunk to low-water mark, spring tide.

At 3^h 35^m, rose to high-water mark, spring tide; sunk to half tide, and returned rapidly.

At 3^h 36^m, was as high as at first and second times; fell two feet.

At 3^h 42^m, nearly the same height as at third rising; it then sunk much lower than at any other time.

At 3^h 50^m, several feet below low-water mark; spring tide rushed in again.

At 3^h 54^m, rose full two feet higher than at the third time; fell nearly as fast as it rose, and with equal force.

At 4^h, was down at high-water mark, neap tide.

At 4^h 15^m, rose about half as high as at last time.

At 4^h 20^m, was down to low-water mark.

At 4^h 32^m, rose to same height as at 4^h 15^m.

At 4^h 40^m, a heavy shower of rain fell; the sea at this time at low-water mark.

At 4^h 55^m, rose to the same height as at first time.

At 5^h 3^m, again at low-water mark.

At 5^h 8^m, rose again about one foot above high-water mark, spring