

The prospect of remaining the coming night in the cold, was sufficient to spur them on to overcome the ascent. They were all completely exhausted when they reached the camp at sunset.

The banks of the crater were found, by Mr. Eld's observations, to be as follows:

West bank,	784 feet.
East "	470 "

On the 10th of January, we had snow again. The temperature rose to 32°: the snow melted fast, causing excessive dampness within and without, while other discomforts that may be imagined prevailed. Towards night, it cleared off, the wind hauling round to the westward. The temperature fell quickly to 16°, when for a few hours it blew a perfect hurricane. I thought the pendulum-house in great danger: it rocked to and fro, appearing at times to be lifted from the ground, and several of its staples were drawn out. Not a person in the camp could sleep until towards daylight, when the gale began to abate.

These gales reminded me strongly of those we experienced among the ice on the Antarctic cruise. I regretted I had no anemometer, to ascertain the direction, changes and force of the wind. It is remarkable that these severe gales all occurred during the night, beginning in the evening and continuing until the next morning. I attempted to ascertain the velocity of the clouds by the rate of progress of their shadow across the crater, marking the time of the passage; and the greatest velocity in many trials of those from the southwest, was about forty-seven miles an hour. It was, however, observed, in these experiments, that the swiftness of the clouds seemed to increase in passing over the apex of the cone or crater. Whether this was the effect of being able to compare their movements more nearly with fixed objects, I am not prepared to say; but I am inclined to believe that in some cases, as they touched the mountain-side, they were forced upwards and over the summit, with a much greater velocity for the first half of the crater than the last. The shortness of the time that elapsed in passing the diameter of the crater, little more than a mile, precludes the supposition that they had changed their form sufficiently to alter the figure of their shadow. The wind was blowing what would be termed a strong gale, when the experiments were made.

On the 11th, having the eprouvette mortar with me, I tried some experiments on the velocity of sound, comparing it with our measured