

had entirely fused its surface. The appearances did not satisfy me that this had been the case, nor did the supposition account for the fact, that none had been collected within the last few months; besides, it might be supposed that some portion of the former accumulation ought to have been discoverable, which it was not.

To walk on the black ledge is not always safe, and persons who venture it are compelled for safety to carry a pole and feel before they tread over the deceitful path, as though they were moving on doubtful ice. The crackling noise made in walking over this crisp surface (like a coating of blue and yellow glass) resembles that made by treading on frozen snow in very cold weather. Every here and there are seen dark pits and vaulted caverns, with heated air rushing from them. Large and extended cracks are passed over, the air issuing from which, at a temperature of 180° , is almost stifling; masses are surmounted that it would seem as if the accumulated weight of a few persons would cause to topple over, and plunge the whole into the fiery pool beneath.

On approaching the large lake at the southern end of the crater, the heat becomes almost too stifling to bear. I shall not soon forget my employment therein, in measuring a base to ascertain the extent and capacity of the lake, of which some account will be given hereafter. At about two-thirds of the distance from the north end are extensive sulphur banks, from the fissures in which much steam is continually escaping: in these fissures are seen many beautiful crystals, adhering to their sides; while on the bank itself, some specimens of sulphate of copper, in beautiful blue crystals, were found.

From many places on the black ledge a bluish smoke was seen issuing, smelling strongly of sulphur, and marked by an efflorescence of a white tasteless powder among the cavities: this it was difficult to detach without scalding the fingers. There were many cracks, where our sticks were set on fire, and some places in the vaulted chambers beneath, where the rock might be seen red hot.

The black ledge is of various widths, from six hundred to two thousand feet. It extends all around the cavity, but it is seldom possible to pass around that portion of it near the burning lake, not only on account of the stifling fumes, but of the intense heat. In returning from the neighbourhood of the lake to the point where we began the ascent, we were one hour and ten minutes of what we considered hard walking; and in another hour we reached the top of the bank. This will probably give the best idea of its extent and the distance to be passed over in the ascent from the black ledge, which was found six hundred and sixty feet below the rim.