holes in it, and the copper bottom of the tube similarly had holes bored through it. The water thus had very free access to the interior of the tube when it was lowered into the sea, and the tube was necessarily constructed with that object in view, in order that in its ordinary use the water should freely reach the contained thermometer.

The copper case containing the sealed glass tube was sent down to a depth of 2,000 fathoms, and drawn up again. It was then found that the copper wall of the case was bulged and bent inwards opposite the place where the glass tube lay, just as if it had been crumpled inwards by being violently squeezed. The glass tube itself, within its flannel wrapper, was found when withdrawn, reduced to a fine powder, like snow almost.

What had happened was that the sealed glass tube, when sinking to gradually increasing depths, had held out long against the pressure, but this at last had become too great for the glass to sustain, and the tube had suddenly given way and been crushed in the violence of the action to a fine powder. So violent and rapid had been the collapse that the water had not had time to rush in by means of the holes at both ends of the copper cylinder, and thus fill the empty space left behind by the collapse of the glass tube, but had instead crushed in the copper wall, and brought about equilibrium in that manner.

The process is exactly the converse of an explosion, and is termed by Sir Wyville Thomson an "implosion." Gunpowder exploded in the centre of a similar copper tube would in a corresponding manner have bulged the sides of the tube outwards, notwithstanding the existence of the openings at its ends.

Marine animals, no doubt, easily accommodate themselves to these enormous pressures in the deep sea. Their tissues being entirely permeated by fluids, the pressure has little or no effect upon them. Moreover, amongst all the various animals dredged up from great depths, it is only some fish which show any marked effects of the alteration of pressure to which they are subjected in being brought to the surface. Fish with swimming bladders come up in the deep-sea dredge in a horribly distorted condition, with their eyes forced out of their heads, their body tense and expanded, and often all their scales forced off.

No sunlight penetrates the deep sea; probably all is dark below 200 fathoms, at least excepting in so far as light is given out by phosphorescent animals. At depths of 2,000 fathoms and upwards the temperature of the water is never many degrees above the freezing-point.