expansion, through increase of temperature, of the denser ice at the base of the mass.

I may be allowed here to make a remark with regard to the movements of glaciers, a subject to which my late father, the Rev. Canon Moseley, devoted much time and research. The theory propounded by him to account for the descent of glaciers, which, as he proved most conclusively, cannot take place by means of their weight alone, was that the motion was due to the expansion and contraction of the mass. A heavy body lying on a slope, inclined ever so little, and subject to expansion and contraction, must necessarily crawl down the slope, every change of dimensions tending to push the mass in the direction of least resistance.* This theory has been considered inadequate, and very little weight has been given to it, because, although ice expands more under the influence of heat than any other known solid, it is a bad conductor of heat, and the temperature of Swiss glaciers is said not to vary. Now, whatever may be the case with the tiny moribund glaciers of Switzerland, it seems to me that in the case of the vast continental ice of the Antarctic regions, and of the North in Greenland and elsewhere, a very important cause of motion must be expansion and contraction, due to changes of temperature. In the Arctic regions there is a considerable range of temperature below freezing point, and it is impossible but that the ice, however bad a conductor it may be, should not change its temperature very greatly, and constantly when in an atmosphere which ranges during the day, for example, between —10° F. and + 19° F., a range of 29°. It is admitted on all hands that a certain amount of motion of all glaciers is due to expansion and contraction, produced by variation of temperature ; but it is contended that the proportion so contributed to the general motion is insignificant in amount.

The colouring of the southern bergs is magnificent. The general mass has a loaf-sugar-like appearance, with a slight bluish tint, excepting where fresh snow resting on the tops and ledges is conspicuous as being absolutely white. On this ground-colour there are parallel streaks of cobalt blue, of various intensities, and more or less marked effect, according to the distance at which the berg is viewed. Some bergs with the blue streaks very definitely marked have, when seen from quite close, exactly the appearance of the common marbled blue soap.

* Rev. H. Moseley, F.R.S., "On the Descent of Glaciers." Proc. Roy. Soc., April 19th, 1855. "On the Mechanical Impossibility of the Descent of Glaciers by their weight only." Proc. Roy. Soc., 1869, p. 202. Also "Phil. Mag.," May, 1869. Further papers in "Phil. Mag.," 1869, 1870.