

Cuvier says, speaking of the bodies of the quadrupeds which the ice had seized, and in which they have been preserved, with their hair, flesh, and skin, up to our own times: "If they had not been frozen as soon as killed, putrefaction would have decomposed them; and, on the other hand, this eternal frost could not have previously prevailed in the place where they died; for they could not have lived in such a temperature. It was, therefore, at the same instant when these animals perished that the country they inhabited was rendered glacial. These events must have been sudden, instantaneous, and without any gradation."*

How can we explain the *glacial period*? We have explained M. Adhémar's hypothesis, to which it may be objected that the cold of the glacial period was so general throughout the Polar and temperate regions on both sides of the equator, that mere local changes in the external configuration of our planet and displacement of the centre of gravity scarcely afford adequate causes for so great a revolution in temperature. Sir Charles Lyell, speculating upon the suggestion of Ritter and the discovery of marine shells spread far and wide over the Sahara Desert by Messrs. Escher von der Linth, Desor, and Martins—which seem to prove that the African Desert has been under water at a very recent period—infers that the Desert of Sahara constituted formerly a wide marine area, stretching several hundred miles north and south, and east and west. "From this area," he adds, "the south wind must formerly

have absorbed moisture, and must have been still further cooled and saturated with aqueous vapour as it passed over the Mediterranean. When at length it reached the Alps, and, striking them, was driven into the higher and more rarefied regions of the atmosphere, it would part with its watery burthen in the form of snow; so

that the same aërial current which, under the name of the Föhn, or Sirocco, now plays a leading part with its hot and dry breath, sometimes, even in the depth of winter, in melting the snow and checking the growth of glaciers, must, at the period alluded to, have been the principal feeder of Alpine snow and ice."† Nevertheless, we repeat, no explanation presents itself which can be considered conclusive; and in science we should never be afraid to say, *I do not know*.

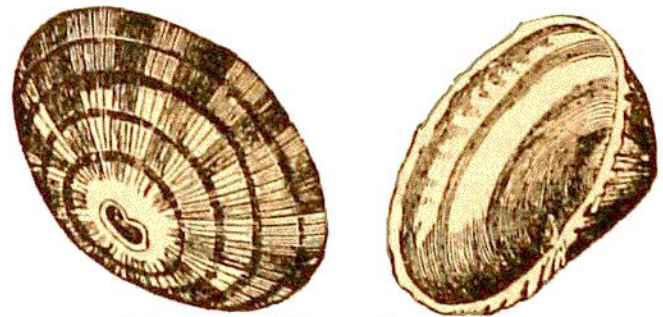


Fig. 199.—*Fissurella nembosa*.
(Living shell.)

* "Ossements fossiles. Discours sur les Révolutions du Globe."

† Lyell's "Elements of Geology," p. 175.