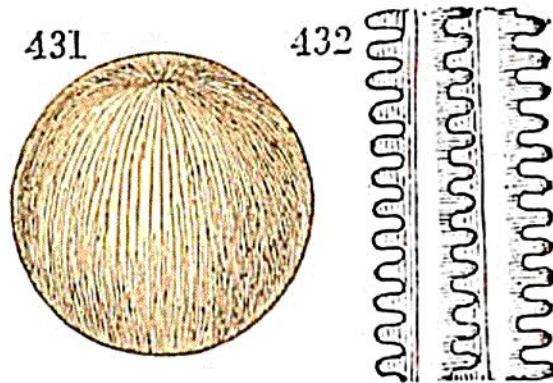


or *stricæ*.\* These lines, which mark the edges of the separate fibres, composing each laminae, converge like meridians from the equator to the two poles of the spheroid, as is shown in Fig. 431. The fibres themselves are not cylindrical,



cal, but flat; and they taper at each end as they approach the points of convergence. The breadth of the fibres in the most external layer, at the equator, is about the 5,500th part of an inch. The observation of another optical phenomenon, of a still more delicate kind, led Sir David Brewster to the farther discovery of the curious mode in which, (as is represented in Fig. 432,) the fibres are locked together at their edges by a series of teeth, resembling those of rackwork. He found the number of teeth in each fibre to be 12,500; and, as the whole lens contains about 5,000,000 fibres, the total number of these minute teeth amounts to 62,500,000,000.†

Some fishes, which frequent the depths of the ocean, being found at between three and four hundred fathoms below the surface, to which it is impossible that any sensible quantity of the light of day can penetrate, have, like nocturnal quadrupeds, very large eyes.‡ In a few species, which

\* See vol. i. p. 169.

† As far as his observations have extended, this denticulated structure exists in the lenses of all kinds of fishes, and likewise in those of birds. He has also met with it in two species of *Lizards*, and in the *Ornithorhyncus*; but he has not been able to find it in any of the *Mammalia*, not even in the *Cetacea*. (Phil. Trans. for 1833, p. 323.)

‡ See "Observations sur les Poissons recueillis dans un Voyage aux Iles Baléares et Pythiuses. Par M. Delaroche."