

movement be upward or downward, it is quite insensible to the inhabitants, and only known by scientific inquiry. If, on the other hand, it was brought about in two millions of years according to the other standard before alluded to, the rate would be only six inches in a century. But the same movement taking place in an upward direction would be sufficient to uplift a portion of the earth's crust to the height of Mont Blanc, or to a vertical elevation of three miles above the level of the sea.

The delta of the Ganges presents in one respect a striking parallel to the Nova Scotia coal-field, since at Calcutta at the depth of eight or ten feet from the surface the buried stools of trees with their roots attached have been found in digging tanks, indicating an ancient soil now underground; and, in boring on the same site for an Artesian well to the depth of 481 feet, other signs of ancient forest-covered lands and peaty soils have been observed at several depths, even as far down as 300 feet and more below the level of the sea. As the strata pierced through contained freshwater remains of recent species of plants and animals, they imply a subsidence which has been going on contemporaneously with the accumulation of fluvial mud.

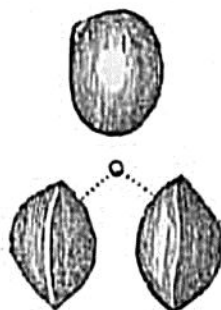
In the English coal-fields the same association of fresh, or rather brackish-water strata, with marine, in close connection with beds of coal of terrestrial origin, has been frequently recognized. Thus, for example, a deposit near Shrewsbury, probably formed in brackish water, has been described by Sir R. Murchison as the youngest member of the carboniferous series of that district, at the point where the coal-measures are in contact with the Permian or "Lower New Red." It consists of shales and sandstones about 150 feet thick, with coal and traces of plants; including a bed of limestone, varying from 2 to 9 feet in thickness, which is cellular, and resembles some lacustrine limestones of France and Germany. It has been traced for 30 miles in a straight line, and can be recognized at still more distant points. The characteristic fossils are a small bivalve, having the form of a *Cyclas* or *Cyrena*, also a small entomostracan which may be a *Cypris*, or, if marine, a *Cythere* (fig. 499), and the microscopic shell of an annelid of an extinct genus called *Microconchus* (fig. 498), allied to *Serpula* or *Spirorbis*.

Fig. 498.



a. *Microconchus* (*Spirorbis*)  
*carbonarius*. Nat. size,  
and magnified.  
b. var. of same.

Fig. 499.



*Cypris inflata* (or *Cythere*?).  
Nat. size, and magnified.  
Murchison.\*