has sunk fifty-eight feet; while at the other extremity there has been a rise of ninety-six feet. It has been supposed that the whole of Greenland was gradually sinking. But the observations of Dr. Kane show that only about 300 miles of the southern part is sinking, while the northern parts are rising. The axis of oscillation is at the latitude of 77°. The evidences of elevation are in the successive terraces or beaches, often containing marine shells, which line the sides of the fiords. Upon Mary Minturn river there are forty one of these shelves, the highest of which is 480 feet above the ocean. They were compared to the Parallel Roads of Glen Roy in their general aspect. This elevation is of a comparatively recent date, because deserted stone huts were seen, which had been abandoned by the natives in consequence of their elevation.

Darwin and Dana have shown that over a wide area of the Pacific Ocean a part of the islands are rising and a part sinking by this same oscillatory movement.

Submarine Forests—On the shores of Great Britain, France and the United States, usually a few feet beneath low-water mark, there occur trees, stumps and peat, seeming to be ancient swamps which have subsided beneath the waters, sometimes to the depth of ten feet. In many cases the stumps appear to stand in the spots where they originally grew; yet it requires great care to ascertain this fact.

The Origin of these Forests.—It is probable that this phenomenon results from several causes. 1. When the barrier between a peat swamp and the sea is broken through, so that the water may be drained off, a subsidence of several feet may take place in the soft spongy matter of the swamp, sufficient to bring it under water. 2. In a case on Hogg Island, in Casco Bay, it is inferred that some submarine forests may have been produced by the gradual removal of the contents of a peat swamp, by the retiring tide, after the barrier between it and the ocean has been removed so as to form a slight slope into the water. At the spot referred to, the process may be seen partly completed. 3. But probably most submarine forests were produced by earthquakes, or other causes of subsidence, which we find to have operated on the earth's surface.

Temple of Jupiter Serapis. There has been an interesting subsidence and elevation of land at Pozzuoli, near Naples, as exhibited by the ruins of an ancient Roman temple. The temple was originally built at the level of the sea, for the convenience of sea-bathers. Subsequently the ground subsided, and a lake was formed in the interior of the temple, in which incrustations were deposited from a hot spring as high as 4.6 feet. Then the sea brought in ashes and sand to the height of seven feet. Next the area was subjected to a violent incursion of the sea, other materials were brought in, and the subsidence continued to the height of nineteen feet above the pavement. After this third subsidence the sea remained quiet, and lithophagous molluscs attached themselves to those parts of the columns within seven or eight feet of the surface. At length the land gradually rose, until the pavement of the temple is now on the level of the sea. The shells were left in the cavities excavated by their inhabitants, and thus indicate to us the former subsidence.

Fig. 127 shows the present aspect of the columns. Those parts of them which are covered by the markings of the Modiolæ are indicated by transverse lines in the figure.