

of these fruits are entire, and have undergone no change, their substance being in the state of common dried hazel-nuts. On the west side of the Lough, the rocks are schistose, and the nuts, as is common in peat, are empty. The specimens in my collection, collected by Mr. Bryce, of Belfast, exhibit the different conditions I have described.

30. SILICIFICATION, OR PETRIFICATION BY SILEX.—The various forms in which silex is found, are proved to have been dependent on its state of solution; in quartz crystals it was entirely dissolved, in agate and chalcedony it was in a gelatinous state, assuming a spheroidal, or orbicular disposition, according to the motion given to its molecules. Its condition was also modified by the influence of organic matter. In some polished slices of flints from Bognor, the transition from flint to agate, chalcedony, and crystallized quartz, is beautifully exhibited. The shell of an echinus, in my possession, is transmuted into crystallized carbonate of lime, and the lower portion of the cavity occupied by flint, the upper surface of the latter being covered by crystals of calcareous spar. The curious fact, mentioned in a previous lecture (p. 304), that the shells of the echinites in the chalk are almost invariably filled with flint, while the crustaceous covering is converted into calcareous spar, is, perhaps, attributable to the animal matter of the echinus having undergone silicification; for the most organized parts are those which appear to have been