

is a little shell three-quarters of an inch in diameter, and closely coiled almost in a plane, like a watch spring. I have been amused to hear some of these forms like bivalve shells called "petrified butterflies." Through western New York, Ontario, Michigan, Ohio, and Indiana we find in the Drift innumerable masses popularly known as "petrified honeycomb," and "petrified wasp-nest." There are also quantities of little flat discs like "buttons," each with radiating striæ or other decorations, and having a hole in the middle, as if intended to be strung like beads. These have sometimes been styled "St. Cuthbert's beads."

These curious forms, so much like animal structures, were wondered over, hundreds of years ago. Very few persons would then entertain the suggestion that they are real relics of living things. They indeed bear the similitudes of marine creatures; but such they can not be, it was argued, because they lie hundreds of feet above the sea. Some of the early Italian writers attributed them to "the influence of the stars;" but Leonardo da Vinci demanded "where, in the hills, are the stars now forming shells of distinct ages and species? And how can the stars explain the origin of gravel, occurring at different heights, and composed of pebbles rounded as if by the motion of running water?" Others attributed these forms to the influence of a "plastic force" in nature. Agricola, a German miner, conceived the notion that a "certain fatty matter, set into fermentation by heat, gave birth to fossil organic shapes;" Fallopio thought that petrified shells were generated by fermentation in the spots where they are found; or that they had, in some cases, acquired their form from the "tumultuous movements of terrestrial exhalations." Olivi thought fossils were mere "sports of nature," and some indulged in the amusing fancy that they were "prototypes" or "models" after which the Creator subsequently fashioned the living creatures of the sea; and others held that they were "created" just as we find them. The last opinion I have heard dogmatically asserted in America; and probably it still survives.