

shoals, and in every gradation from the young to the adult state. Silicious casts of echini, formed by the decomposition and removal of the shell from the flint with which they were filled, are common in gravel and on ploughed lands. The cordiform variety (fig. 7) is very abundant, and gives rise to the heart-shaped flints of our gravel-pits. The elliptical species (fig. 3) is common in the green sand. The hemispherical echini are beautifully embossed with papillæ: a small species (fig. 1) is not uncommon in the chalk and flints of Kent; the larger varieties possess tubercles, surrounded by elegant margins (fig. 6), and are otherwise richly ornamented. Some spines are slender, and covered with asperities (fig. 2); others almost smooth (fig. 9), and club-shaped (fig. 4); it is seldom that the spines are found imbedded in contact with the shell (fig. 8).

17. SHELLS OF THE CHALK.—The bivalve shells, or conchifera of the chalk, are very numerous; of one genus alone (*terebratula*) above fifty species are enumerated. Oysters, scallops, arcas, tellens, and other familiar marine shells abound, but the species differ from the recent. With these known genera are many which, so far as our present knowledge of the inhabitants of the deep extends, are extinct. Two or three species of *cirrus*, or *trochus*, are not unusual in the white chalk; but the simple univalves are few; and the only specimen of a large simple spiral univalve with which I am acquainted