

of a grey colour: every one I saw had not only suffered depression, but the shell was also in every instance broken; a circumstance which is the more remarkable, as it is rarely discoverable in any of the superior strata.

Small masses of pyrites are very common, and there are some of singular forms. Thin strings of it, sometimes ramified, the branches terminating in a point, are very numerous; but sometimes on the contrary they are terminated by a spherical bulb, or by one that is elongated and resembling the head of the alcyonium, but very small; they are generally hollow. A remarkable crystallization of pyrites is also very common. A string of octohedrons piled with considerable regularity on each other, and above an inch in length, is crossed by another similar to it,—the termination of each being the quadrangular pyramid of an octohedron:—these again are crossed at right angles by another, which is terminated in like manner, so that the three have one common centre: giving to the whole the appearance of the commencing crystallization, or the skeleton, of one large octohedron. Thin beds of sponges occasionally appear, their remains being either ochreous, or of a lighter colour than the chalk itself; but these are visible only when the stratum has risen considerably, and near to the beginning of the undercliff. Near the stream called *Lidden Spout*, I found the cast of a large nautilus in grey chalk, but much harder than that of the stratum.

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After an interval of about 40 miles occupied by the formations below the chalk, and which, after quitting the green sand cliffs near Hythe, presents a flat and uninteresting coast, (excepting where the section of the central ridge of iron sand affords the picturesque cliffs on both sides of Hastings,) the chalky cliffs re-appear with much magnificence in the promontory of Beachy Head, which forms the termination of the range of the South Downs against the coast. These cliffs are said in Henshawe's Survey to be 575 feet high; they exhibit both the lower and upper chalk declining under a gentle angle to the S.W.: they extend westward without interruption about four miles, when they are broken through by the valley which gives issue to the Cuckmere river. On the west side of this valley the cliffs again rise, and are continued till a second similar interruption is occasioned by the mouth of the river Ouse, towards which a small outlying hummock of the plastic clay superstrata crowns the chalky cliff at Chilmington castle; beyond

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