I at one time supposed that the rectilinear smooth-stemmed fucoid already described occurred in both series, as the gray stones have also their smooth-stemmed, rectilinear, tape-like organism; but the points of resemblance were too few and simple to justify the conclusion that they were identical, and I have since ascertained that they were entirely different plants. The fucoid of the Caithness flagstones threw off, as I have shown, in the alternate order, numerous ribbon-like branches or fronds; whereas the ribbon-like fronds or branches of the Forfarshire plant rose by dozens from a common root, like the fronds of Zostera, and somewhat resembled a scourge of cords fastened to a handle. Contemporary with this organism of the gray flagstone formation, and thickly occupying the planes on which it rests, there occur fragments of twisted stems, some of them from three to four inches in diameter (though represented by but mere films of carbonaceous matter), and irregularly streaked, or rather *wrinkled*, longitudinally, like the bark of some of our forest trees, though on a smaller scale. With these we find in considerable abundance irregularly-shaped patches, also of carbonaceous matter, reticulated into the semblance of polygonal, or, in some instances, egg-shaped meshes, and which remind one of pieces of ill-woven lace. When first laid open, these meshes are filled each with a carbonaceous speck; and, from their supposed resemblance, in the aggregated form, to the eggs of the frog in their albuminous envelop, the quarriers term them "puddock [frog] spawn." The slabs in which they occur, thickly covered over with their vegetable impressions, did certainly remind me, when I first examined them, some fifteen years ago, of the bottom of some stagnant ditch beside some decaying hedge, as it appears in middle spring, when paved with fragments of dead branches and withered grass, and mottled with its life-impregnated patches of the gelid substance regarding which a provincial poet tells his readers, in classical Scotch, that