

tians anticipated us in even our most homely household contrivances. They even fermented their bread and trussed their fowls after the same fashion ; and thus gave evidence, in these familiar matters, that they thought and contrived "after the manner of men." Now, in acquainting myself with the organisms of the geologic periods, I have been similarly but more deeply impressed by what I must be permitted to term the *human* cast and character of the contrivances which they exemplified. Not only could I understand the principles on which they were constructed, but further, not a few of them had, I found, been actually introduced into works of human invention ages ere they were discovered in the rock. What the great Creator-worker had originated in the Palæozoic and Secondary periods, had been in after times originated by the little creature-worker, wholly unaware that his contrivance had been anticipated, and was but a repetition of a previously executed design. In the later geologic ages the organization of the various extinct animals so nearly resembled that of the animals which still live, that we may regard it as not inadequately represented by the illustrations of Paley. A few such exceptional contrivances appear among the mammals of the Tertiary as that formed by the huge pick-axe-like tusks of the *Dinotherium*, or a few such extraordinary modifications of the ordinary mammalian framework as that exhibited in the enormously massive pelvic arches and hinder limbs of the *Mylodon* and *Megatherium*. But not until we pass into the deposits of the Secondary period, and get among its cephalopoda, do we find a mechanism altogether unlike any with which we are acquainted among living organisms. As admirably shown by Buckland, the partitions which separate into chambers all the whorls of the ammonite except the outermost one, were exquisitely adapted to strengthen, by the tortuous windings of their outer edges, a shell which had to combine great lightness with great powers of resist-