

among animated beings, and particularly among the feathered tribes; namely, the hatching and rearing of their offspring. Still, however, like the ostrich in very warm climates, though the cuckow neither hatches nor feeds her young, she places her eggs in situations where they are both hatched and her offspring brought to maturity. Here the stupidity of the one animal makes it a dupe to the rapine and chicane of the other; for the cuckow always destroys the eggs of the small bird before she deposits her own.

Most of the passerine or small tribes build their nests in hedges, shrubs, or bushes; though some of them, as the lark and the goat-sucker build upon the ground. The nests of small birds are more delicate in their structure and contrivance than those of the larger kinds. As the size of their bodies, and likewise that of their eggs, are smaller, the materials of which their nests are composed are generally warmer. Small bodies retain heat a shorter time than those which are large. Hence the eggs of small birds require a more constant supply of heat than those of greater dimensions. Their nests, accordingly, are built proportionally warmer and deeper, and they are lined with softer substances. The larger birds, of course, can leave their eggs for some time with impunity; but the smaller kinds sit most assiduously; for, when the female is obliged to go abroad in quest of food, the nest is always occupied by the male. When a nest is finished, nothing can exceed the dexterity of both male and female in concealing it from the observation of man, and of other destructive animals. If it is built in bushes, the pliant branches are disposed in such a manner as to hide it entirely from view. To conceal her retreat, the chaffinch covers the outside of her nest with moss, which is commonly of the same colour with the bark of the tree on which she builds. The common swallow builds its nest on the tops of chimnies; and the martin attaches hers to the corners of windows, or under the eaves of houses. Both employ the same materials. The nest is built with mud well tempered by the bill, and moistened with water to make it more firmly cohere; and the mud or clay is kept still firmer by a mixture of straw or grass. Within it is neatly lined with feathers. Willoughby, on the authority of Bontius, informs us, 'That, on the sea-coast of the kingdom of China, a sort of small party-coloured birds, of the

shape of swallows, at a certain season of the year, viz. their breeding time, come out of the midland country to the rocks; and from the foam or froth of the sea-water dashing and breaking against the bottom of the rocks, gather a certain clammy, glutinous matter, perchance the sperm of whales, or other fishes, of which they build their nests; wherein they lay their eggs, and hatch their young. These nests the Chinese pluck from the rocks, and bring them in great numbers into the East Indies to sell; which are esteemed by gluttons great delicacies, who, dissolving them in chicken or mutton broth, are very fond of them, preferring them far before oysters, mushrooms, or other dainty and lickerish morsels which most gratify the palate.—These nests are of a hemispherical figure, of the bigness of a goose-egg, and of a substance resembling isin-glass.'

Most of the cloven-footed water-fowls, or waders, lay their eggs upon the ground. But the spoon-bills and the common heron build large nests in trees, and employ twigs and other coarse materials; and the storks build on churches, or on the tops of houses. Many of the web-footed fowls lay their eggs likewise on the ground, as the terns, and some of the gulls and mergansers. But ducks pull the down from their own breasts to afford a warmer and more comfortable bed for their young. The auks, the guillemots, and the puffins or coultenebs, lay their eggs on the naked shelves of high rocks. The penguins, for the same purpose, dig large and deep holes under ground.

It is not unworthy of remark, that birds uniformly proportion the dimensions of their nests to the number and size of the young to be produced. Every species lay nearly a determined number of eggs. But, if one be each day abstracted from the nest, the bird continues to lay daily more till her number is completed. Dr. Lister, by this practice, made a swallow lay no less than nineteen eggs.

Innumerable other particulars might be adduced of the force of instinct in the brute creation, with respect to their habitations. But enough have been enumerated, to convince how much the providential care of the Divine Being is extended over universal existence.—I shall conclude this paper with the observations of an ingenious writer* on the beaver, in particular, which are well worthy the attention of the proud politicians of the human race, who are now so warmly contending concerning the origin