

dor, remaining at that court till hostilities ceased, when he returned to America, where he was twice chosen president of the assembly of Philadelphia, but resigned the honour in 1788, owing to his great age.—*Life prefixed to his Works.*

## BIRDS' NESTS.

The structure of the nests of birds affords, perhaps, one of the most agreeable lessons in Natural History.

Among the most curious nests of our *English* birds may be named that of the *Wren*, the *long-tailed Titmouse*, the *Thrush*, the *Goldfinch*, the *Chaffinch*, the *Maggie*, and the *House Sparrow*; to these may also be added the *Swallow's*, the *Martin's* the *Wood Pigeon's* and the *Wood-Pecker's*. Of the nests of *Rooks*, it may be sufficient to observe, that they are often found to the number of six, or even more, in a cluster. *Crows'* nests are always solitary; they are similar in structure to those of the rook.

Among the nests of foreign birds, that of the *Taylor Bird* deserves especial mention; the bird itself is a diminutive one, being little more than three inches long; it is an inhabitant of India. The nest is sometimes constructed of two leaves, one of them dead; the latter is fixed to the living one as it hangs upon the tree, by sewing both together in the manner of a pouch or purse; it is open at the top, and the cavity is filled with fine down; and, being suspended from the branch, the birds are secure from the depredations of snakes and monkeys, to which they might otherwise fall a prey.

In Dr. Latham's collection is a specimen of the taylor bird's nest, composed of a single large leaf, of a fibrous rough texture, about six inches long independent of the stalk, five inches and a half in breadth, and ending in a point. The sides of this leaf are drawn together so as to meet within three-quarters of an inch; within is the nest, about four inches deep and two broad, opening at the top; the bottom of the leaf is drawn upwards, to assist in the support of it. The interior nest is composed of white down, with here and there a feather and a small portion of white down intermixed.

Another nest of this bird has also been described as composed of several leaves, like those of some kind of hazel sewed together; the inner nest formed of dry bents, fibres, and hairs, suspended from a tree. It is, therefore, probable that this bird, as well as some others, varies the structure of its nest as occasion and the materials may require. These singular works are performed by the bird's using his bill instead of a needle, and vegetable fibres for thread.

The *Rufus Bee-eater*, or *Merops Rufus*, constructs also a very singular nest. This is a native of Buenos Ayres; the nest is built generally on the naked, great branch of a tree, sometimes on the windows of houses, a fence, or a projecting beam of a high house or other building; it is composed of earth, in the form of a baker's oven, and is often built in the short space of two days, both birds being engaged in

the construction; it is six inches in diameter, and one thick; a division is within, beginning at the entrance, and carried circularly, so that the eggs are deposited in the inner chamber, on a bed of grass. The swallow and other birds often attempt to obtain possession of this nest, but are generally repulsed by the owners.

Many of the *Orioles'* nests are also deserving notice. The *black and yellow Oriole*, inhabiting South America, has a pendent nest, shaped like an alembic; it is affixed to the extreme branches of trees; sometimes, it is said, so many as four hundred nests are found hanging on the same tree.

The *Philippine* and *Pensile Grosbeak* make also very curious nests.

In concluding this account of the nests of birds, I may notice here the nest of the *Hirundo esculenta*, or *Esculent Swallow*, an inhabitant of China and the Islands of the Indian Ocean. The nest consists of a gelatinous substance, in shape resembling an apple cut down the middle. The nests are found in great numbers together, and are by the luxurious Asiatics made into broths, and otherwise cooked, and are esteemed one of the greatest dainties of the table; they are also occasionally used for glue.—*Jennings's Ornithologia.*

**EYES OF BIRDS.**—Birds flying in the air, and meeting with many obstacles, as branches and leaves of trees, require to have their eyes sometimes as flat as possible for protection; but sometimes as round as possible, that they may see the small objects, flies and other insects, which they are chasing through the air, and which they pursue with the most unerring certainty. This could only be accomplished by giving them a power of suddenly changing the form of their eyes. Accordingly, there is a set of hard scales placed on the outer coat of their eye, round the place where the light enters; and over these scales are drawn the muscles or fibres by which motion is communicated; so that by acting with these muscles, the bird can press the scales, and squeeze the natural magnifier of the eye into a round shape when it wishes to follow an insect through the air, and can relax the scales, in order to flatten the eye again when it would see a distant object, or move safely through leaves and twigs. This power of altering the shape of the eye is possessed by birds of prey in a very remarkable degree. They can see the smallest objects close to them, and can yet discern larger bodies at vast distances, as a carcass stretched upon the plain, or a dying fish afloat on the water.

A singular provision is made for keeping the surface of the bird's eye clean, for wiping the glass of the instrument, as it were, and also for protecting it, while rapidly flying through the air and through thickets, without hindering the sight. Birds are, for these purposes, furnished with a third eyelid, a fine membrane or skin, which is constantly moved very rapidly over the eyeball by two muscles placed in the back of the eye. One of the muscles ends in a loop, the other in a string which goes through the loop, and is fixed in the corner of the membrane, to pull it backward and forward.