THE UMBRELLA BIRD.

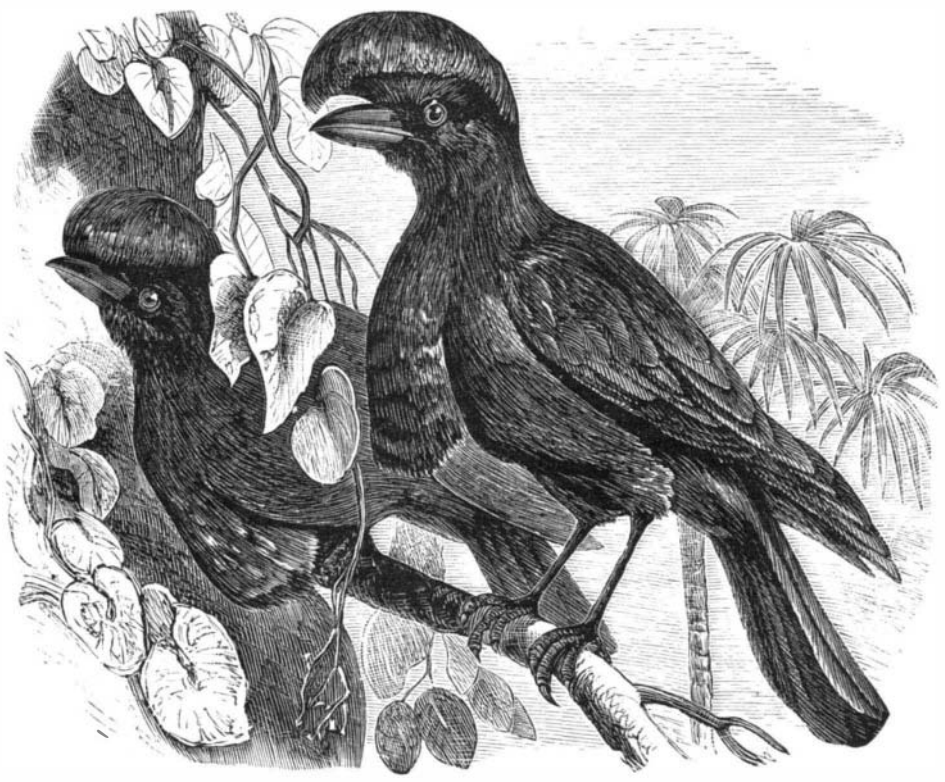
The group of the fruit crows may lay claim to the credit of reckoning among their number one of the most singular of the feathered tribe. The Umbrella Bird is a truly remarkable creature, and from the extraordinary mode in which its plumage is arranged, never fails of attracting the attention of the most casual spectator.

The bird is a native of the islands of the South American rivers—being seldom if ever seen on the main land—from whence it is not unfrequently brought by collectors, as there is always a ready sale for its skin, either to serve as an ornament in glass cases, or as a specimen for a museum. In dimensions the Umbrella Bird equals the common crow of England, and but for the curious plume which adorns its head, and the tuft which hangs from its breast, might be mistaken at a distance for that bird. The general color of this species is rich shining black, glazed with varying tints of blue and purple like the feathers of the magpie's tail.

Very little is known of the habits of the bird; but a very good description of its appearance when living has been given by Mr. Wallace in the following words: "Its crest is, perhaps, the most fully developed and beautiful of any bird known. It is composed of long slender feathers, rising from a contractile skin on the top of the head. The shafts are white, and the plume glossy blue, hair-like, and curved outward at the tip. When the crest is laid back, the shafts form a compact white mass, sloping up from the top of the head, and surmounted by the dense hairy plumes. Even in this position it is not an inelegant crest, but it is, when it is fully spread, that its peculiar character is developed. The shafts then radiate on all sides from the top of the head, reaching in front beyond and below the tip of the beak, which is completely hidden from view. The top then forms a perfect, slightly elongated dome, of a beautiful shining blue color, having a point of divergence rather behind the center, like that in the human head. The length of this dome from front to back is about five inches, the breadth four to four and a half inches."

Scarcely less curious than the "umbrella," as this overhanging plume is very appropriately named, is a bunch of elongated feathers that hang from the breast in a tuft, perfectly distinct from the rest of the plumage. The peculiarity in this tuft is, that the feathers of which it is composed do not grow from the neck, but from a cylindrical fleshy growth, about as thick as an ordinary goosequill, and an inch and a half long. The whole of this curious appendage is covered with feathers, so that the breast tuft is wholly distinct from the feathers of the neck and breast. The entire skin of the neck is extremely loose, more so than in any other bird, according to Mr. Wallace. The feathers of this tuft are edged with a beautiful and resplendent blue, and lap over each other like so many scales. The food of the Umbrella Bird consists chiefly of berries and various fruits, and it always rejects the hard stone of stone fruit. As its cry is extremely loud and deep, the natives call the bird by a name which signifies a pipe.

We take our illustration from Wood's "Natural History."



THE UMBRELLA BIRD.

Culinary Uses for Leaves.

An English writer, calling attention to a much neglected source of culinary flavors, says:

"With the exception of sweet and bitter herbs, grown chiefly for the purpose, and parsley, which is neither bitter nor sweet, but the most popular of all flavoring plants, comparatively few other leaves are used. Perhaps I ought also to except the sweet bay, which is popular in rice and other puddings, and certainly imparts one of the most pleasant and exquisite flavors; but, on the other hand, what a waste there is of the flavoring properties of peach, almond, and laurel leaves, so richly charged with the essence of bitter almonds, so much used in most kitchens! Of course such leaves must be used with caution, but so must the spirit as well. An infusion of these could readily be made, either green or dry, and a tea or table spoonful of the flavoring liquid used. One of the most useful and harmless of all leaves for flavoring is that of the common syringa. When cucumbers are scarce, these are a perfect substitute in salads or anything in which that flavor is desired. The taste is not only like that of cucumbers, but identical—a curious instance of the correlation of flavors in widely different families. Again, the young leaves of cucumbers have a striking likeness in the way of flavor to that of the fruit. The same may be affirmed of carrot tops, while in most gardens there is a prodigious waste of celery flavor in the sacrifice of the external leaves and their partially blanched footstalks. Scores of celery are cut up into soup, when the outsides would flavor it equally well or better. The young leaves of gooseberries added to bottled fruit give a fresher flavor and a greener color to pies and tarts. The leaves of the flowering currant give a sort of intermediate flavor between black currants and red. Orange, citron, and lemon leaves impart a flavoring equal to that of the fruit and rind combined, and somewhat different from both. A few leaves added to pies, or boiled in the milk used to bake with rice, or formed into crusts or paste, impart an admirable and almost inimitable bouquet. In short, leaves are not half so much used for seasoning purposes as they might be."

The Argan Tree.

Consul Drummond Hay, in his report upon Mogadore, the principal port of Morocco, mentions the existence of forests of the argan tree, which afford nourishment both for the natives and their flocks in the times of drought and scarcity. This remarkable tree grows only in certain provinces of the country, and is utilized in the following ways: In the first place, the peasants extract the oil from the nut, which is useful both for burning and cooking purposes. When the nuts ripen and fall off the trees they are collected by the natives, who are aided in the harvest by their goats. Those animals swallow the fruit for the rind, but, being unable to digest the nut they throw it up again, and it is then added by their owners to the store for making the oil. For their private consumption the peasants rarely make a large quantity of the oil at a time, but crack open a few handfuls of nuts with a stone, and after toasting the kernels in an earthenware dish, grind them to flour. The oil is extracted by adding water in small quantities to the flour, which is stirred in a bowl. As the oil is being formed by this process, the flour hardens into a cake, which is finally squeezed, leaving the oil perfectly clear and fit for use. This kind of oil cake then serves as an excellent food for cattle, as does also the dry rind of the nut, which is generally given to them with the cake, forming together their principal and most nutritious food during the year. It is invaluable to the natives in time of drought, for the argan tree is very hardy, and a dry year has little if any effect upon it. Even the empty husk of the nut, when broken, is not thrown away by the peasants, but used as fuel. The best charcoal is made from the argan tree, and the dry timber is excellent firewood. The goats feed also upon the leaves of the tree, and when browsing in the argan forest may be seen climbing among the trees, plucking and nibbling the nuts and leaves.

A New Form of Iron Manufacture.

The manufacture of a new metal, composed partly of steel and partly of iron, has been described in the *Revue Industrielle* of Paris. The novelty of this new combination consists in the introduction of a thin sheet of iron between the surfaces to be welded. A cast iron mould is divided into two departments by means of a transverse plate, or of a tube placed in the interior, and the two metals are poured into the respective compartments. Before fusion, both metals are submitted to complete refining, which removes all matters that hinder welding; they are then turned into the mould, the sheet iron partition in which serves to prevent their mingling, and to facilitate welding by being itself brought into a state of fusion. The success of the operation depends considerably on the preparation of the metals, on their readiness to weld, and on the thickness of the partition. The last is determined by experiment, and the dimensions differ according to those of the ingots to be produced. The metal thus prepared is said to be adapted to the fabrication of rails, anchors, etc., where the hardness of the metal diminishes the wear, and increases the resistance of the mass. In the construction of safes, plates of this combination are said to be proof against all attempts to break through them.

A Spruce-Destroying Beetle.

From the report of the "New York State Botanist," Mr. Chas. H. Peck, just issued, we obtain the following account of the extensive ravages of the spruce-destroying beetle (*Hylurgus rufipennis*), which appears to be doing great damage to the spruce trees in the Adirondack region. Mr. Peck says that he observed that the green slopes of Mount Emmons, commonly called Blue Mountain, and of several mountains to the north of it, had their beauty, and their value too, greatly impaired by the abundant intermixture of the brown tops of dead spruces. The destruction was also visible along the road between Newcomb and Long Lake, and on the mountain slopes far to the north of this road. Again, on the trail from Adirondack to Calamity Pond there was sad evidence that the little destroyer had invaded also the forests of Essex county. From what he saw at Lake Pleasant, in the southern part, and in the vicinity of Long Lake, in the northern part, and from information concerning the Cedar river region, in the central part of Hamilton county, he has reason to believe that much of the spruce timber of this county has already been invaded by the beetle. How much further this destructive work has extended, or will extend, it is impossible to say. But one thing is certain, it is still in progress. Upon cutting down one of the infested trees for examination, Mr. Peck found longitudinal furrows, varying from one to six inches in length under the bark, each occupied by one or two beetles. The eggs of the insect are deposited along both sides of the upper part of the furrow. They lie close to each other, almost or quite in contact. When the larvæ emerge from the eggs they begin to feed upon the soft cambium, and to work their way under the bark at right angles to the main furrow. At first they are so minute and work so close together that they make no distinct furrows, but seem rather to devour entirely a very thin layer of the cambium. As they increase in size they gradually begin to form distinct furrows, and to take directions more divergent from each other and from their original course. In this way colonies from contiguous furrows at length run together, and in time the whole trunk is surrounded by multitudinous pathways, and the death of the tree is accomplished.

Mr. Peck thinks it pretty evident that the trees are attacked all along during the months of June and July, and possibly as late as August. He suspects, also, that the parent beetle, after having established a colony in one place, may emerge from her furrow to repeat the operation in another place, either in the same trunk or in a different one, but this point he was not able to ascertain definitely.

A Geological Discovery in Deep Water.

During the past season's work of the U. S. Fish Commission off the Massachusetts coast many observations were taken of the temperature and density and chemical composition of the water at various depths up to 200 fathoms, with the special object of determining the physical conditions which influence the movements and migrations of the cod, of the mackerel, the menhaden, and the herring. In the course of these investigations masses of rock were dredged from all the best fishing localities, and in them were found some thirty species of fossils indicating a tertiary formation hitherto unknown. A considerable number of the fossil species were new to science.

Preservation of Milk.

On the 9th of August, 1878, P. Cunliffe Owen, Esq., Secretary to the Royal Commission, and several scientific gentlemen, were present in the Food Department, British Section of the Paris Exhibition, when Mr. Hooker, F.C.S., attended and succeeded in churning butter in a few minutes from a specimen of milk prepared by him, which had been exposed to the action of the air for a period exceeding seven years, having been prepared in May, 1871. Butter has been churned on several occasions from this sample of ancient milk before the food committee of this society, and the can of milk has been kept in the society's house, except while it was removed to be shown at the various international exhibitions, since 1871.

JUST before leaving Europe to attempt the Northeast Passage, Professor Nordenskjöld sent to the Paris Academy of Sciences an account of a new mineral recently found in Sweden, and which he has named Thaumasite ("the wonderful"). It has been met with in specimens from the Gustav and Carlsberg mines, or the Bjelke mine at Areskustan, and is a substance of strange composition, containing at once silicic acid, carbonic acid, and sulphuric acid. The microscopical analysis shows it to be a genuine new species, and not a mixture. The curious composition of the mineral is thought to be very important for a knowledge of the transformation which the materials of rocks undergo.