

the luxuriance of animal and vegetable life said to exist there." His design was to make a large collection of objects in natural history; but unhappily they were destroyed by a fire at sea which he encountered on his return. The reader will be surprised to learn that upon the whole Mr. Wallace was disappointed with tropical scenery. It would be very grand if you could see it, but you cannot see it on account of its own luxuriance. It covers the land with a green plain, viewed from a height, when the spectator looks down upon the forest; and below, nothing can be seen by reason of the number of trees, and the thick-growing climbing plants that mat them together. Nor did Mr. Wallace find so many animals as he expected. The truth is, they cannot be copied in the thicket, and they move away at the sound of footsteps long before the traveller can cut his way with his hatchet to the spot where they had been feeding. Then there is the incalculable annoyance of the insect world, destroying all pleasure that might otherwise be derived from the novelty of place and scene. Mr. Wallace saw most when he was upon the river; for then he could get a peep into vistas of the forest, and animal life was more abundant and approachable. Here is one of the most remarkable objects he beheld:—

#### THE MILK-TREE.

What most interested us, however, were several large logs of the masseranduba, or milk-tree. On our way through the forest we had seen some trunks much notched by persons who had been extracting the milk. It is one of the noblest trees of the forest, rising with a straight stem to an enormous height. The timber is very hard, fine-grained, and durable, and is valuable for works which are much exposed to the weather. The fruit is eatable, and very good, the size of a small apple, and full of a rich and very juicy pulp. But strangest of all is the vegetable milk, which exudes in abundance when the bark is cut. It has about the consistence of thick cream, and, but for a very slight peculiar taste, could scarcely be distinguished from the genuine product of the cow. Mr. Leavens ordered a man to tap some logs that had lain nearly a month in the yard. He cut several notches in the bark with an axe, and in a minute the rich sap was running out in great quantities. It was collected in a basin, diluted with water, strained, and brought up at tea-time and at breakfast next morning. The peculiar flavour of the milk seemed rather to improve the quality of the tea, and gave it as good a colour as rich cream. In coffee it is equally good. Mr. Leavens informed us that he had made a custard of it, and that, though it had a curious dark colour, it was very well tasted. The milk is also used for glue, and is said to be as durable as that made use of by carpenters. As a specimen of its capabilities in this line, Mr. Leavens showed us a violin he had made, the belly-board of which, formed of two pieces, he had glued together with it applied fresh from the tree, without any preparation. It had been done two years. The instrument had been in constant use; and the joint was now perfectly good and sound throughout its whole length. As the milk hardens by exposure to air, it becomes a very tough, slightly elastic substance, much resembling gutta-percha; but, not having the property of being softened by hot water, is not likely to become so extensively useful as that article.

Another curiosity was

## VOYAGES AND TRAVELS.

*A Narrative of Travels on the Amazon and Rio Negro.* By ALFRED R. WALLACE. London: Reeve and Co.

*Anadol; the Last Home of the Faithful.* By the Author of "The Frontier Lands of the Christian and the Turk." London: Bentley.

*A Month in England.* By HENRY T. TUCKERMAN, Author of "The Italian Sketch Book." London: Bentley.

*Mayfair to Marathon.* London: Bentley.

(Continued from p. 45.)

THE best part of Mr. Wallace's work on the *Amazon and Rio Negro* is that which narrates his voyage up the Rio Negro, the northern branch of the Amazon River. Mr. Wallace informs us that he undertook the journey "from an earnest desire to see a tropical country, and to behold

### THE UMBRELLA BIRD.

The next morning my hunter arrived, and immediately went out in his canoe among the islands, where the umbrella-birds are found. In the evening after dark he returned, bringing one fine specimen. This singular bird is about the size of a raven, and is of a similar colour, but its feathers have a more scaly appearance, from being margined with a different shade of glossy blue. It is also allied to the crows in its structure, being very similar to them in its feet and bill. On its head it bears a crest, different from that of any other bird. It is formed of feathers more than two inches long, very thickly set, and with hairy plumes curving over at the end. These can be laid back so as to be hardly visible, or can be erected and spread out on every side, forming a hemispherical or rather a hemiellipsoidal dome completely covering the head, and even reaching beyond the point of the beak; the individual feathers then stand out something like the down-bearing seeds of the dandelion. Besides this, there is another ornamental appendage on the breast, formed by a fleshy tubercle, as thick as a quill and an inch and a half long, which hangs down from the neck, and is thickly covered with glossy feathers, forming a large pendent plume or tassel. This also the bird can either press to its breast, so as to be scarcely visible, or can swell out, so as almost to conceal the fore part of its body. In the female the crest and the neck-plume are less developed, and she is altogether a smaller and much less handsome bird. It inhabits the flooded islands of the Rio Negro and the Solimoes, never appearing on the mainland. It feeds on fruits, and utters a loud hoarse cry, like some deep musical instrument;

whence its Indian name, *Ueramimbé*, "trumpet-bird." The whole of the neck, where the plume of feathers springs from, is covered internally with a thick coat of hard, muscular fat, very difficult to be cleaned away—which, in preparing the skins, must be done, as it would putrefy, and cause the feathers to drop off.

The country about the Upper Amazon is flat, and during the floods it presented the following singular aspect:—

#### FLOODS OF THE AMAZON.

The river was now so high that a great portion of the lowlands between the Rio Negro and the Amazon was flooded, being what is called "Gapó." This is one of the most singular features of the Amazon. It extends from a little above Santarem up to the confines of Peru—a distance of about seventeen hundred miles, and varies in width on each side of the river from one to ten or twenty miles. From Santarem to Coari, a little town on the Solimoes, a person may go by canoe in the wet season without once entering into the main river. He will pass through small streams, lakes, and swamps, and everywhere around him will stretch out an illimitable waste of waters, but all covered with a lofty virgin forest. For days he will travel through this forest, scraping against tree-trunks, and stooping to pass beneath the leaves of prickly palms, now level with the water, though raised on stems forty feet high. In this trackless maze the Indian finds his way with unerring certainty, and, by slight indications of broken twigs or scraped bark, goes on day by day as if travelling on a beaten road. In the Gapó peculiar animals are found, attracted by the fruits of trees which grow only there. In fact, the Indians assert that every tree that grows in the Gapó is distinct from all those found in other districts; and when we consider the extraordinary conditions under which these plants exist, being submerged for six months of the year till they are sufficiently lofty to rise above the highest water-level, it does not seem improbable that such may be the case. Many species of trogons are peculiar to the Gapó, others to the dry virgin forest. The umbrella chattering is entirely confined to it, as is also the little bristle-tailed manakin. Some monkeys are found there only in the wet season; and whole tribes of Indians, such as the Purupús and Múras, entirely inhabit it, building small easily-removable huts on the sandy shores in the dry season, and on rafts in the wet; spending a great part of their lives in canoes, sleeping suspended in rude hammocks from trees over the deep water; cultivating no vegetables, but subsisting entirely on the fish, turtle, and cow-fish, which they obtain from the river. On crossing the Rio Negro from the city of Barra, we entered into a tract of this description. Our canoe was forced under branches and among dense bushes, till we got into a part where the trees were loftier, and a deep gloom prevailed. Here the lowest branches of the trees were level with the surface of the water, and were many of them putting forth flowers. As we proceeded, we sometimes came to a grove of small palms, the leaves being now only a few feet above us; and among them was the marajá, bearing bunches of agreeable fruit, which as we passed the Indians cut off with their long knives. Sometimes the rustling of leaves overhead told us that monkeys were near, and we would soon perhaps discover them peeping down from among the thick foliage, and then bounding rapidly away as soon as we had caught a glimpse of them. Presently we came out into the sunshine, in a grassy lake filled with lilies and beautiful water-plants, little yellow bladder worts (*Utricularias*), and the bright blue flowers and curious leaves with swollen stalks of the *Pontederias*. Again in the gloom of the forest, among the lofty cylindrical trunks rising like columns out of the deep water: now a splashing of falling fruit around us would announce that birds were feeding overhead, and we could discover a flock of paroquets, or some bright-blue chattering, or the lovely pompadour, with its delicate white wings and claret-coloured plumage; now with a whirr a trogon would seize a fruit on the wing, or some clumsy toucan make the branches shake as he alighted.

inch on the belly. Beneath the skin is a layer of fat of a greater or less thickness, generally about an inch, which is boiled down to make an oil used for light and for cooking. The intestines are very voluminous, the heart about the size of a sheep's, and the lungs about two feet long, and six or seven inches wide, very cellular and spongy, and can be blown out like a bladder. The skull is large and solid, with no front teeth; the vertebrae extend to the very tip of the tail, but show no rudiments of posterior limbs; the fore limbs, on the contrary, are very highly developed, the bones exactly corresponding to those of the human arm, having even the five fingers, with every joint distinct, yet enclosed in a stiff inflexible skin, where not a joint can have any motion. The cow-fish feeds on grass at the borders of the rivers and lakes, and swims quickly with the tail and paddles; and though the external organs of sight and hearing are so imperfect, these senses are said by the hunters to be remarkably acute, and to render necessary all their caution and skill to capture the animals. They bring forth one, or rarely two, young ones, which they clasp in their arms or paddles while giving suck. They are harpooned, or caught in a strong net, at the narrow entrance of a lake or stream, and are killed by driving a wooden plug with a mallet up their nostrils. Each yields from five to twenty-five gallons of oil. The flesh is very good, being something between beef and pork, and this one furnished us with several meals, and was an agreeable change from our fish diet.

We conclude with an interesting account of that characteristic of the South American forests,

#### THE CLIMBERS.

The climbers were particularly remarkable, as much for the beauty of their foliage as for their flowers. Often two or three climb over one tree or shrub, mingling in the most perplexing though elegant confusion, so that it is a matter of much difficulty to decide to which plant the different blossoms belong, and should they be high up it is impossible. A delicate white and a fine yellow convolvulus were now plentiful; the purple and yellow trumpet flowers were still among the most showy; and some noble thick-leaved climbers mounted to the tops of trees, and sent aloft bright spikes of scarlet flowers. Among the plants not in flower, the twin-leaved *bauhinias* of various forms were most frequently noticed. The species are very numerous; some are strabo, others delicate climbers, and one is the most extraordinary among the extraordinary climbers of the forest, its broad flattened woody stems being twisted in and out in a most singular manner, mounting to the summits of the very loftiest forest trees, and hanging from their branches in gigantic festoons, many hundred feet in length. A handsome pink and white *clusia* was now abundant, with large shining leaves, and flowers having a powerful and very fragrant odour. It grows not only as a good-sized tree out of the ground, but is also parasitical on almost every other forest-tree. Its large, round, whitish fruits are called "cebola braba" (wild onion), by the natives, and are much eaten by birds, which thus probably convey the seeds into the forks of lofty trees, where it seems most readily to take root in any little decaying vegetable matter, dung of birds, &c. that may be there; and when it arrives at such a size as to require more nourishment than it can there obtain, it sends down long shoots to the ground, which take root, and grow into a new stem. At Nazaré there is a tree by the road-side, out of the fork of which grows a large *mucujá* palm, and on the palm are three or four young *clusia* trees, which no doubt have or will have orchideæ and ferns again growing upon them. A few forest-trees were also in blossom; and it was truly a magnificent sight to behold a great tree covered with one mass of flowers, and to hear the deep distant hum of millions of insects gathered together to enjoy the honeyed feast. But all is out of reach of the curious and admiring naturalist. It is only over the outside of the great dome of verdure, exposed to the vertical rays of the sun, that flowers are produced; and on many of these trees there is not a single blossom to be found at a less height than a hundred feet. The whole glory of these forests could only be seen by sailing gently in a balloon over the undulating flowery

## Another scrap of Natural History.

### THE COWFISH.

One day the fisherman brought us in a fine "peixe boi," or cow-fish, a species of *Manatus*, which inhabits the Amazon, and is particularly abundant in the lakes in this part of the river. It was a female, about six feet long, and near five in circumference in the thickest part. The body is perfectly smooth, and without any projections or inequalities, gradually changing into a horizontal semicircular flat tail, with no appearance whatever of hind limbs. There is no distinct neck; the head is not very large, and is terminated by a large mouth and fleshy lips, somewhat resembling those of a cow. There are stiff bristles on the lips and a few distantly scattered hairs over the body. Behind the head are two powerful oval fins, and just beneath them are the breasts, from which, on pressure being applied, flows a stream of beautiful white milk. The ears are minute holes, and the eyes very small. The dung resembles that of a horse. The colour is a dusky lead, with some large pinkish-white marbled blotches on the belly. The skin is about an inch thick on the back, and a quarter of an

surface above; such a treat is perhaps reserved for the traveller of a future age.

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