

HAIRY PREHENSILE-TAILED PORCUPINE.

The brightest, and prettiest, and by far the pleasantest of all of the places of resort within cab-fare radius, in London, is the northeast corner of Regent's Park. There are the Zoological Society's Gardens, where may be found a collection which, in some departments, is unsurpassed. This collection is continually being enlarged and improved.

Our illustration represents some interesting little animals that have lately made their appearance. The hairy porcupine with the prehensile tail, the tree porcupine of Brazil, whose Latin name is *Sphingurus villosus*, was obtained by purchase in March, 1877; but she gave birth to a youngster on July 9 of this year, and our engraving represents both mother and child. They have a lodging at present in the house belonging to the small mammalia, on the east side of the gardens; but the parent is apt to run up to the very top of the bough placed aslant in a corner, so as almost to hide herself beneath the roof. She is between a large rat and a small rabbit in size, and of a grayish-brown color; the tail is very useful, awake or asleep, for holding on to trees.

We take our illustration from the *London News*.

Fish Culture in New York.

The New York Commission of Fisheries report that more than three millions of shad fry were turned loose in the Hudson River, one million eight hundred thousand young salmon trout were distributed, and of the brook trout—the species in respect of which the burden of effort has been expended and the maximum of success in hatching reached—an immense number were hatched and placed in the various waters of the State. The orders for this succulent and gamesome fish far exceed the supply, and if even a small number reach maturity there is no reason why our larger trout streams should not recover the reputation which they had before they were depleted by the increase of our scientific anglers. The Commission are now occupied with new branches of fish culture of such a character as the supply of insect food for the finny gourmands and the crossing of breeds, all of which goes to prove that ere long the culture of fish will reach the point already attained in the propagation of animals, fruits, and plants. The Commission consists of ex-Governor Horatio Seymour, Mr. Edward M. Smith, and Mr. Robert B. Roosevelt.

GOLDEN BIRD OF PARADISE.

It is hardly possible to conceive a more singular arrangement of plumage than is presented in the Golden Bird of Paradise, although in many species there is something so remarkable and unexpected that we believe the extreme of uniqueness to have been reached until we come across another species which equally raises our wonder and admiration.

In this species six long slender shafts start from the head, three on each side, bare for the greater part of their length, and furnished with a little patch of web at their extremities. These curious shafts are movable, as the bird possesses the power of raising them so as to stand out horizontally on each side of the head, or of permitting them to hang loosely down the sides of the neck. The flanks are decorated with massive plumes of jetty black, that are also capable of being raised or lowered at the pleasure of the bird, and that fall over the wings and tail so as nearly to conceal them.

The general color of this curious species is deep velvety-black, changing into gray on the top of the head, and into the richest changeable golden green on the back of the neck. The throat is most gorgeous in the sunshine, being covered with scale-like feathers of glittering green edged with gold. The feathers of the tail are also velvet-like, and some of the shafts are long and filamentous. The total length of this bird is rather under a foot.

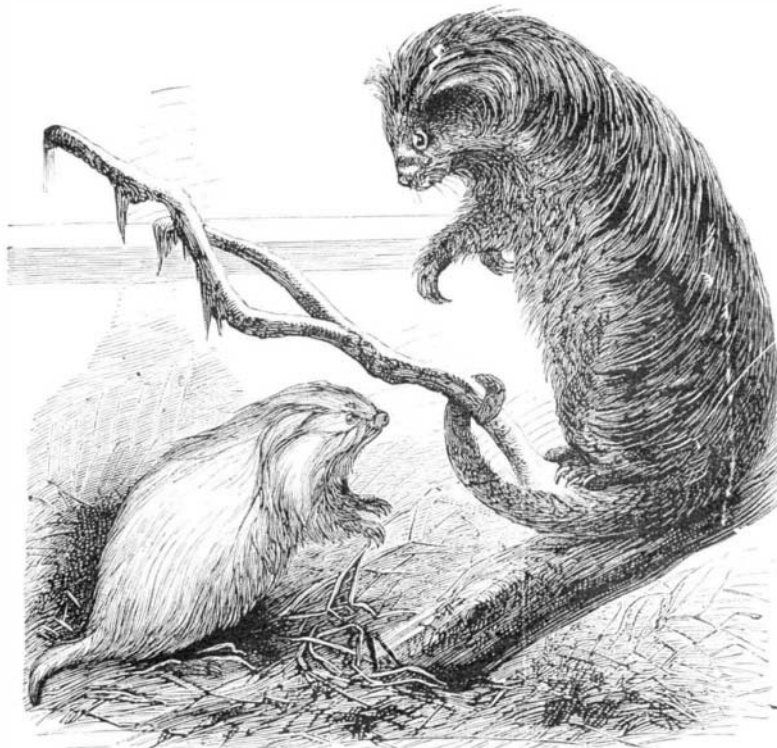
We take our illustration from Wood's "Natural History."

A Destructive American White Ant.

A correspondent of the *Gardener's Monthly* having recently sent specimens and description of a white ant, which he found not only destroying his geranium plants but even eating through his pine plant stakes, the subject was referred to Rev. H. McCook, an eminent authority. This gentleman reports that the insect is our common *Termes flavipes*, which abounds everywhere in the vicinity of Philadelphia. He says: "I have traced them by myriads. Some time last winter I made a statement concerning these insects before the Academy, and exhibited the specimens of their work from my collection of insect architecture. They were taken from the fence of a gentleman in

Delaware county. The surface of the wood was literally riddled by the termites. They love decayed wood, under which they rest, and on which they feed. They also live under stones.

"They have not been of great damage here as yet, but the possibility of such an increase of the insects as to make them pests is at least worth thinking about. Dr. Leidy has recently made some interesting discoveries of the

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parasite life within their abdomens—a wonderful revelation. *Termes flavipes* is not a true ant, but belongs to the *Neuroptera*."

Phosphorus a Cure for Sciatica.

It is not ordinarily wise to try remedies for effecting cures which one finds in the newspapers. But where the ingredients are such that no harm can arise from their trial, and the source from which the prescription emanates is likely to be reliable, the afflicted will gladly try almost any remedy recommended.

Dr. Volquardsen reports in Schmidt's *Dictionary* and the *Pesth Medico-Chirurg. Presse*, both good authorities, from

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which the *London Medical Record* copies, a case of sciatica which lasted for two years and defied all treatment. He then arrived at the idea of trying the internal use of phosphorus, which he prescribed in doses of fifteen milligrammes (about one fourth of a grain) three times a day. Three days sufficed to obtain a marked improvement, and three weeks brought a complete cure.

Castor Oil Plant.

Originally a native of Asia, the castor oil plant is now naturalized in Africa, America, and the south of Europe. This plant has been known from the remotest ages; its seeds have been found in some Egyptian sarcophagi, supposed to have been at least 4,000 years old. It is singular that the oil expressed from its seeds should have been used by the ancients, including the Jews, as one of their pleasantest oils for burning, and for several domestic uses, though its medicinal virtues were unknown. The modern Jews of London use this oil by the name of oil of kiki for their Sabbath lamps, it being one of the five kinds of oil their traditions allow them to burn on such occasions.

In some parts of Europe this shrub is not more than three or four feet high, yet in its native country it is a perennial, fifteen or twenty feet high, with a thick stem. In cold climates it becomes an annual, though there are many other instances of perennial plants becoming annuals by change of climate. The rapid growth of the plant is illustrated by an instance reported in Tennessee. A castor bean was planted in May, in a garden in Memphis, and in November it had grown to the height of twenty-three feet, with a spread of foliage fifteen feet in diameter. The trunk, ten inches above ground, was eighteen inches in circumference. The castor oil plant is extensively cultivated all over India. The plant is cultivated at Lucknow as a mixed crop. It is sown in June by almost all the villagers, principally for their own use for purposes of illumination. There are 67,000 acres under castor oil in the Madras Presidency. The manufacture of castor oil is actively carried on in the United States, especially at St. Louis, the beans being largely produced in Southern Illinois. In 1875, official returns give 24,145 acres under this culture in Kansas, producing 361,386 bushels of seed. In Iowa it has been found a profitable crop, the yield being fifteen to twenty-five bushels of seed per acre.

The ground is prepared, says the Boston *Cultivator*, as for other crops, and the seeds are planted much in the manner of those of Indian corn, with the exception that there is but one seed put into each hill, and that at every fourth row a space is left to admit of the passage of a team for the purpose of gathering the crop. The ripening commences in August. About twenty bushels from an acre of ground is considered a fair yield. The oil is obtained from the seed by expression, by boiling with water, or by the agency of alcohol. Nearly all that is consumed in England is obtained by expression.

In this country the seeds, cleansed from the dust and fragments of the capsules, are submitted to a gentle heat, not greater than can be borne by the hand, which is intended to render the oil more fluid, and therefore more easily expressed. The whitish oily liquid thus obtained is boiled with a large quantity of water, and the impurities skimmed off as they rise to the surface. The water dissolves the mucilage and starch, and the albumen is coagulated by the heat, forming a layer between the oil and water. The clear oil is then removed and boiled with a very small quantity of water, the effect of which is to clarify the oil and get rid of the volatile acid matter. Great care is necessary not to carry the heat too far, as the oil would thus acquire a brownish color and acid taste.

In the West Indies the oil is obtained by decoction, but none of it appears in this country. In Calcutta the fruit is shelled by women, the seeds crushed between rollers, then placed in hempen cloths and pressed in the ordinary screw or hydraulic press. The oil thus obtained is afterward heated with water in a tin boiler until the water boils, by which means the mucilage and albumen are separated. The oil is then strained through flannel and put into canisters. Two principal kinds of castor seeds are known, the large and the small, the latter yielding the most oil. The best East Indian castor oil is sold in London as "cold drawn." In some parts of Europe castor oil has been extracted from the seeds by alcohol, but the process is more expensive and yields an inferior article. Castor oil is purified by decantation and filtration, and bleached by exposure to sunlight.

Cat-Tail Down.

M. Bien calls attention, in the *Répertoire de Pharmacie*, to the decided healing properties

of an application of the down of the common cat-tail flag (*Typha latifolia*) to wounds, particularly to burns and scalds. It is only necessary to puncture the vesicles, to cover them with a dense layer of the down, and to leave this until it drops off. The plant is a common one and well known to everybody; the remedy may therefore be readily tested.