length of sixty or seventy feet. Its home is in the northern seas, but sometimes it has been seen as far south as Maine. Its natural history does not appear to have been well worked out, though it is hunted, to some extent, for its liver oil. It is inoffensive in its habits, probably herbivorous, and exhibits none of the characteristics of the shark family.

AGRICULTURAL INVENTIONS.

Mr. Jacob Anderes, of Pacific, Mo., has patented a hand seed planter, to the base plate of which are attached spring-closed spouts and a seed box provided with discharge holes. The planter drops corn in three places in the hill.

Mr. Isaiah H. Reiner, of Line Lexington, Pa., has invented a harrow which can be readily transformed into a sled to facilitate its transportation from place to place, and which can also be used to carry grain and agricultural implements to and from the place where they are used.

Mr. David B. Eberly, of Boswell, Ind., has patented an improved harrow. It is so constructed as to cut in pieces lumps and sods and pulverize the soil. It will adapt itself to uneven ground, and can be adjusted wider or narrower as required.

Mr. T. C. Baxter, of Glenwood, Kan., has invented a potato fork, which is more efficient than a plow or an ordinary hoe or fork in removing potatoes from the hill. To the rear of a fork of ordinary construction is attached a foot piece, that is bent outward and upward and secured upon the handle. A front handle is in like manner secured to fork and handle. When used by two persons the fork is placed back of the hill and thrust beneath the potatoes by their combined action; then it is pulled and pushed forward and upward at the same time, lifting and dragging out all the potatoes from the hill. As the potatoes remain upon the fork, a shake or two given to it will separate them from the earth, which will fall between the tines.

A spring harrow tooth so constructed that it may be secured adjustably to the bars of the harrow frame, will be firmly and securely held, can be readily adjusted, and will economize steel in its manufacture, has been patented by Mr. Arthur P. Sprague, of Kalamazoo, Mich.

Pearls in New Zealand.

The Auckland *Evening Star* reports the discovery of pearls in Oakley creek, New Zealand. While passing along the bank of the creek, Mr. Benjamin Gittos, an old resident of the district, observed a peculiar and, to him, new shell fish in the sand. A little search disclosed a large number of them of various sizes. The inner coating of the shell was found to be mother-of-pearl of fine quality, and in several of the larger shells he found loose pearls. The pearls are described as unusual in form and color, not perfectly round, but far more brilliant than ordinary pearls.

THE MOUSE-EATING SPIDER AT THE ZOO.

This formidable insect is one of the latest arrivals at the Zoological Gardens, Regent's Park. It comes from Bahia, a maritime province of Brazil, and is common in the South American forests. Its body, which is covered with hair, is three inches in length, and its legs are in proportion; so that, when extended, it is about as big as a cheese plate. It feeds on mice and small birds, which it catches by springing suddenly upon them from ambush in the hollow of a tree or beneath a large leaf. At the Zoo it is fed chiefly on a large kind of cockroach (twice as big as those often met with in our kitchens), which comes to England in the cages in which certain animals are imported, and have hitherto been a great nuisance to the managers of the gardens.—*Graphic.*

JAPANESE ART.

The engraving on this page will be recognized by every one as an example of Japanese art. This vase stands about four feet in height. It is of bronze, a favorite material with the Japanese metal workers, who are certainly unsurpassed by any people in the world for originality of design and skill in execution. This is an excellent specimen of their peculiar method. In the grotesques at the base and in the relief ornamentation on the sides we see that peculiar exaggeration and distortion of natural objects which many people prefer to the conventionalism obtaining with European artists. Here, too, in the elaboration of minute designs on the collars and the rim and in the superbly executed handles, we see the evidence of a patient, painstaking labor such as only oriental workmen practice.

JAPANESE BRONZE VASE.

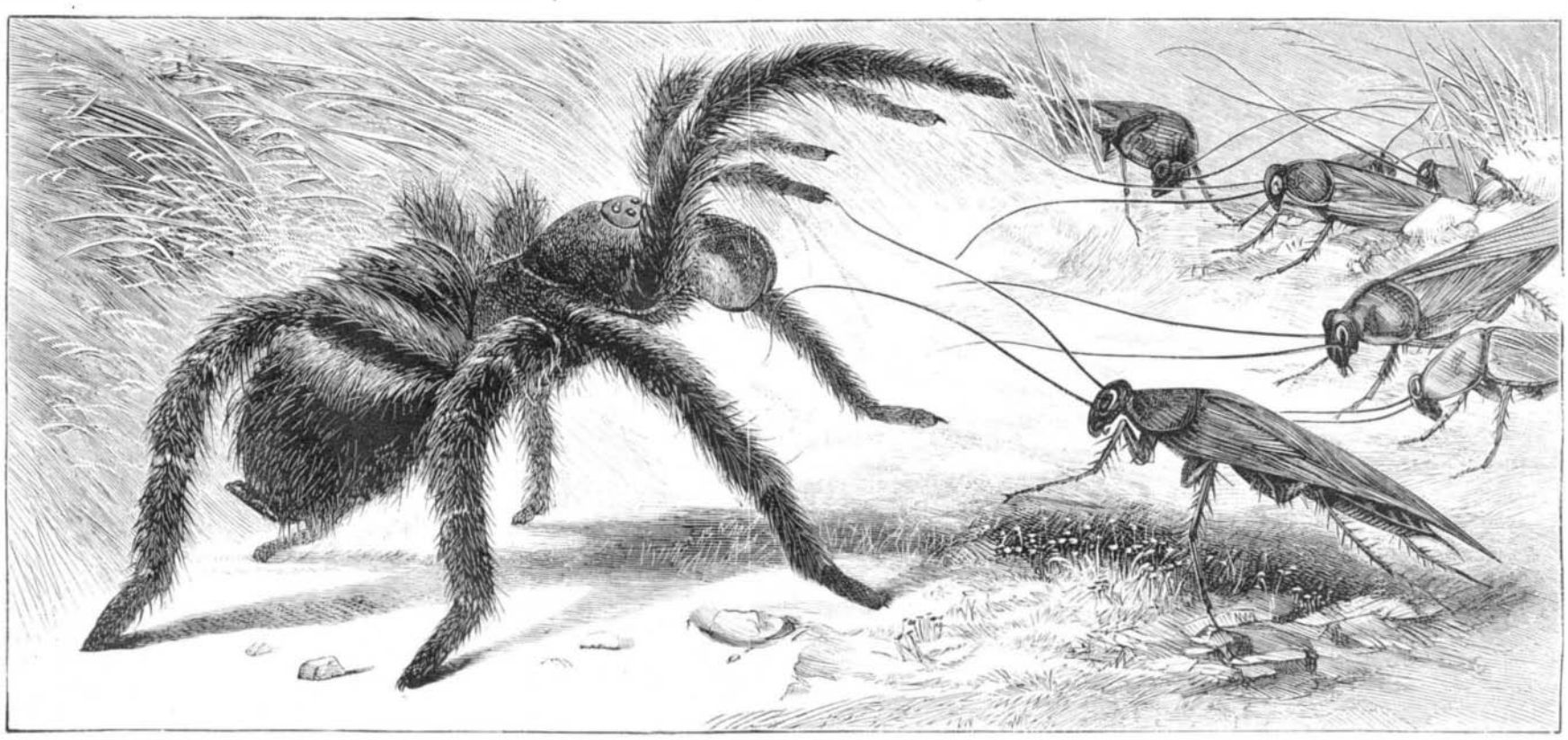
Large Cuttle Fish.

All exact information about gigantic Cephalopoda is of interest not only as showing what immense marine creatures do exist, but as preparing us for the possibility of meeting with still greater. Prof. Verrill has collected a great deal of accurate and recent information as to the North American species, of which he publishes a list in the April number of the *American Journal of Science*, from which we cull the following: On November 2, 1878, a fisherman was out in a boat with two other men near Leith Bay Copper Mine, Notre Dame Bay, when they observed some bulky object not far from shore, which they approached, thinking it might be part of a wreck. To their horror they found themselves close to a large fish having big glassy eyes. It was making desperate efforts to escape, and was churning the water into foam by the motion of its immense arms and tails. Finding it partially disabled, they plucked up courage and threw the boat's grapnel, which sank into its soft body. By means of the stout rope attached to the grapnel and tied to a tree the fish was prevented going out with the tide; its struggles were terrific, as, in a dying agony, it flung its great arms about. At length it became exhausted, and as the water receded it expired. Its body, from the beak of the mouth to the extremity of the tail, measured twenty feet, and one of the tentacles, or arms, measured thirty-five feet. This is the largest specimen yet measured of *Architeuthis princeps.* Prof. Verrill mentions eighteen species as now known on the northeastern coast of America.

NATURAL HISTORY NOTES.

A Monstrous Seaweed.—Of all marine algæ, the *Nereocystis* is most wonderful. Its stem occasionally attains a length of three hundred feet, though it is extremely slender even at the top, where it is surmounted by an enormous floating bladder six or seven feet long, which affords a favorite resting place to the sea otter. The account, indeed, is apparently so fabulous as given by Mertens in an interesting paper on the botany of the Russian possessions in America, that it could not be believed did it not depend upon unquestionable authority. The filiform stem (which is about as thick as pack thread) when two or three feet long, swells suddenly above into a globose bladder. From the top of this springs a tuft of germinate leaves, mostly rising on five petioles. These leaves are lanceolate and membranaceous, from one to two feet long, and two inches broad in the center. As the plant grows older, the stem increases enormously in length, but only slightly in thickness. The globose bladder swells into a turnip-shaped or retort-like cylinder, six feet long and four feet six inches or more in diameter, in the widest part, the lower extremity gradually passing into the stem. The leaves, which at first were marked with a few faint nerves, split in the direction of the latter, cover a large space by their entangled mass, and attain a length of twenty-seven feet or more. Where the plant grows in any quantity, the surface of the sea becomes impossible to boats, in consequence of the dense floating masses of vegetation. The stem is employed for fishing lines when dry, and the large cylinder is used as a siphon for draining water out of boats, in the same way that another seaweed—the *Ecklonia buccinalis*—is used frequently at the Cape.

Bees and Flowers.—A writer in the *Midland Naturalist* says: "Bees, when gathering honey, seem to me (and I make the remark after many observations) to confine themselves during any given excursion to flowers of the same family. Thus, when I have watched a bee or butterfly gathering honey from a rose I have found that when it next alights it is invariably on another rose, and on no other flower." To this the editor adds the following notes from Kerner: "Flying insects in their search for nectar frequently confine themselves during their rapid visitation of successive flowers to the blossoms of one and the same species. For example, in a meadow at Trins, in the Gschnitz Valley, I saw *Bombus montanus* visiting only the inconspicuous flowers of *Anthyllis alpestris*, whilst the numerous and far more striking nectar-bearing flowers of *Pedicularis Jacquini* and *P. incarnata* were passed over. Contrariwise in another place, in a meadow in the Padail Valley, I saw this same species of bee buzzing from one *Pedicularis* flower to another, whilst passing over the intermixed *Anthyllis alpes-*



THE GIGANTIC MOUSE-EATING SPIDER AT THE ZOOLOGICAL GARDENS LONDON.—(Natural Size.)