# FEBRUARY 16, 1901.

earth are heaped up around the curbing and pump to check the wind, and frequently when snow is used instead the mass is speedily riddled by numerous blowholes.

There are periods when these wells blow out for consecutive days and an equal period when they are reversed. This is tested with the flames of candles and by dropping paper, chaff, feathers, etc., into the casing to see it blown out with some force or else drawn in. When the wells are blowing audibly the water rises to a higher level than before, and when the conditions are reversed and air is drawn in, the water is lowered. In the case of many wells a reverse of the current is noticed as it is morning or evening and according as the temperature is high or low.

Experience has taught the people that the blowing of their wells is premonitory of an approaching storm, hence the name "weather" wells. The citizens have elaborated many explanations, some of them as interesting as ingenious, but the generally accepted theory is that the phenomenon is due largely to atmospheric pressure. An elaborate investigation to determine the exact character of these wells will, it is expected, soon be undertaken, under the auspices of the United States government.

# THE TRUNCATED MAN.

This remarkable person, who was exhibited in Paris at the time of the Exposition, is one of the rare examples of a human being who has been from birth deprived of his arms and legs; he was born in France in the department of Morihan (Brittany), his father and mother being in easy circumstances and living upon a small farm. Both the parents are of good constitution and physically normal. Their son, now about twenty-five years of age, has no apparent trace



### THE MANTIS RELIGIOSA-NATURAL SIZE.

of arms or legs, and hence is generally known by the name of l'Homme Tronc, or Trunk Man. Outside of this remarkable peculiarity, the rest of his body does not present any marked variations from the normal; the head is somewhat large in proportion to the body; the capillary system is but little developed, and the head shows a premature baldness. His parents have always taken great care of him, and he lives in a normal way (apart from the use of his members), as none of the essential organs of life are wanting; he eats, drinks, and digests like another person, but if left to himself he would undoubtedly die, as it is impossible for him to move his body in order to procure food. It may be thought that his condition would react upon the mind, and that he would be of a sad disposition and place but little value upon existence: on the contrary, he seems to be satisfied with life. The writer questioned him upon this point and he

responded that he was quite contented with existence; he does not suffer from want of occupation, as might be supposed, as he has different kinds of work to keep him busy. One of his chief occupations is that of making small tables and chairs, and other objects, by nailing together pieces of wood which have been previously cut out for him. One of the engravings shows him engaged



# Scientific American.

in this work. He takes a nail in his mouth, plants it in the wood and drives it in very adroitly; he also threads a needle with his mouth, and can take up a glass or metal cup which is given him to drink and empty it without spilling a drop. He seems to be sufficiently intelligent, without being particularly so. At the time of the Exposition he was put on exhibition in a small hall near the grounds. For two of our engravings we are indebted to Lectures pour Tous.

## ----THE MANTIS RELIGIOSA IN ROCHESTER, N. Y. BY N. HUDSON MOORE.

Some two years ago a farmer living in one of the nearby villages, brought into the city of Rochester some curious growths which he had found on his



### MANTIS-NATURAL SIZE.

growing corn. They were identified as egg-cases of a Mantid, and were supposed to be those of the common southern variety, Stagmomantis carolina, although it was several hundred miles farther north than any specimens of this insect had been found before. The following year many more of these cases were found. Indeed, in one part of the city, near a school-house, there were so many of them that the children gathered them as playthings, and a small paper-bag full of these cases was given to a nature student for purposes of observation.

These particular cases were gathered during the winter and kept in a warm room. By Easter Sunday the young Mantids were pushing their way out, and, unfortunately for lack of proper food-flies being scarce-several hundred of these valuable insects perished. In the meantime it had been discovered that these insects did not conform to the descriptions of S. carolina, and some of the cases were sent to Cornell Experiment Station, where the young were raised. To determine accurately what species of Mantid these newcomers were, some adults were sent to Mr. Scudder, an expert, for identification.

Like everybody else he supposed at first that it was the carolina variety out of its range. But, he says, after trying to run it down to Stagmomantis, he turned at last to the Old World tables, and found at once that it was a Mantis, and by comparing specimens, the common European variety, Mantis religiosa.

Unlike most of our European importations in the insect world, notably the cabbage butterfly and Hessian fly, this most recent addition to our fauna is a valuable acquisition. It is insectivorous and destroys



large numbers of grasshoppers, caterpillars, mosquitoes, and flies. It is a most interesting insect to observe, even the egg-case itself being quite a notable affair. This is whitey-brown in color, and has a regularity that is very beautiful. Up the center of one side runs a braided effect, which seems entirely wonderful when you consider how the case is made.

The female selects some twig or stem suitable for her purpose, and emits the "foam-like" material which dries and forms the case. She holds it in position and moulds it into shape with her hind legs and the tips of her outer wings. When you hold it in your hand and observe its structure this seems hardly possible, and the eggs are not put in hit or miss, but in a definite manner.

As may be seen from the illustration the case is formed of many scale-like bands overlapping each other. They do not lie absolutely flat, but stand up a little. Underneath these scales the eggs are placed each in its cell, well protected and quite concealed from view. In our first sketch the young Mantids are seen emerging each from his own cell. They bear no resemblance at first to the mature insect, each coming out wrapped in a casing, and looking like a mummy in its grave clothes. It must take a vigorous effort for each little creature to expel itself, and it then remains quiet for several hours till this first skin is shed. After this is accomplished it appears with its full complement of legs, and looking like a tiny edition of the adult Mantis. Over one hundred and fifty were counted as they came from the case, those eggs deposited last hatching first.

It would seem as if each female had done her duty in making and filling one of these cases, but the same one has been known to make two, and one specimen made three, the last one being small and quite irregular, and then she died.

Like other members of the order Orthoptera (which includes the walking-sticks and grasshoppers), these insects are often difficult to distinguish from the

in wait for their prey. The

Mantis away from its leafy surroundings is showy and large.

Its body is long and slender, the

first segment of the thorax being

of unusual length. Its front

legs are powerful members,

armed with stout hairs which

Some of the adults are brown,

some a leaf green, apparently

without regard to sex. They

often remain in the same posi-

tion for hours, with the front

legs raised in the attitude of

prayer-hence the name-wait-

ing for the first unwary insect

the insect does not come within seizing distance they crawl, or

assist in holding its prey.



## EGG CASE-NATURAL which comes within reach. If SIZE.

rather sidle slowly toward it, and then make a quick pounce, holding the insect firmly in the strong front claws, while it is eagerly devoured. Grasshoppers seem a particularly agreeable diet, and one Mantid will easily dispatch three or four at a meal, beginning at the head and working backward, discarding only portions of the hind legs, wing-tips and some of the internal organs.

We had two of these Mantis in a cage for observation. They lived there peaceably for several days, fed



on a diet of flies and beetles. Just before leaving them for the night several fresh flies were added and matters seemed all serene.

The Toilet,

Taking an Airing.

THE TRUNCATED MAN.

Making Toy Furniture.

Whether a quarrel came up in the night, or whether the fly diet proved unsatisfactory one may not say, but the next morning the green Mantid was monarch of all she surveyed, and in one corner of the cage were a pair of brown forelegs. She probably