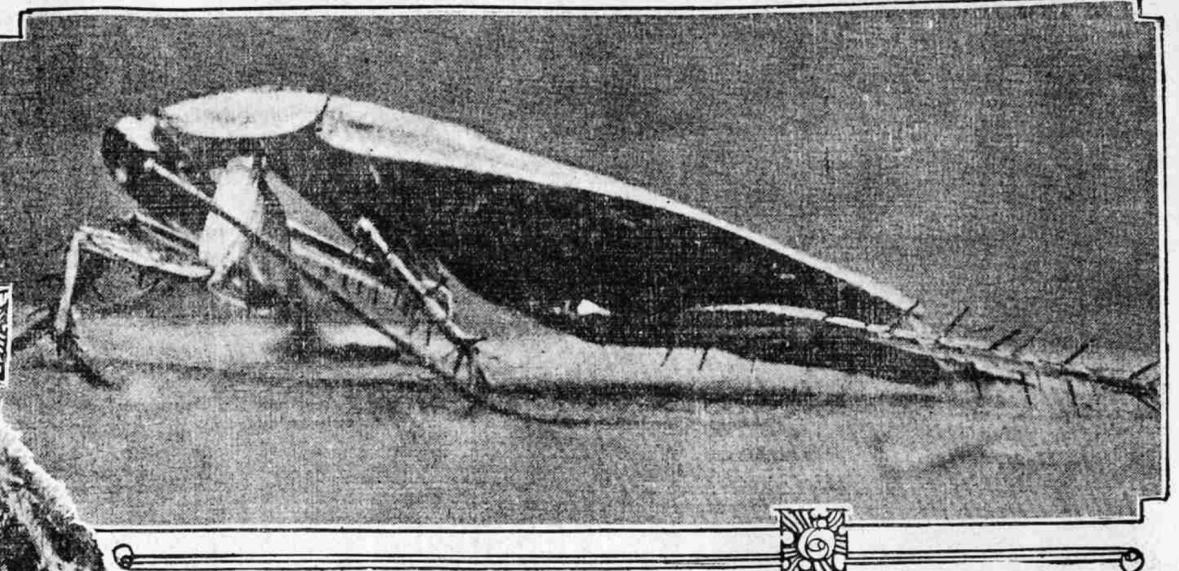
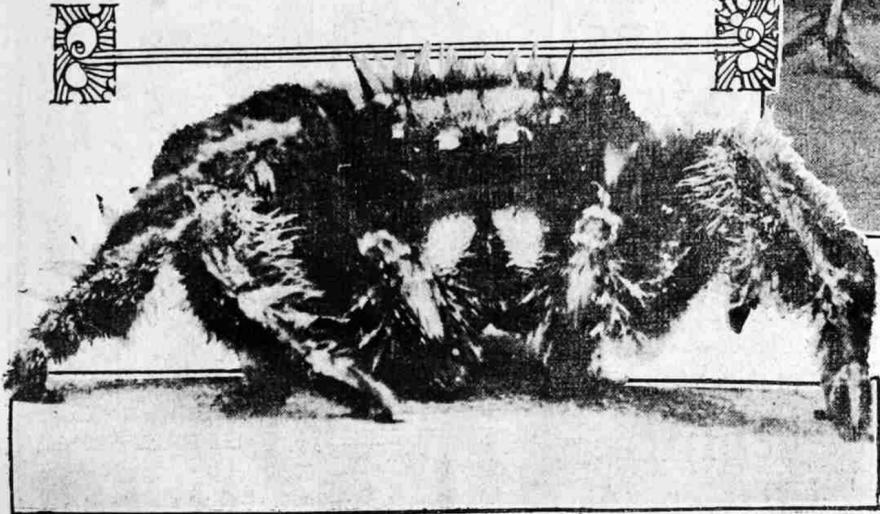


Monsters All Around Us



Terrible Aspect of Tiny Insects at Our Feet Discovered by Putting Them Under Powerful Microscopes—Wonderful Muscular Development.

We are surrounded by a world of little monsters, but we cannot see their hideousness because our eyes are not built for seeing them. We are too big, but if they were big in proportion as we are bigger than a fly they would be a constant menace to us.

Take the spider for example. He has eight eyes. Two are for seeing by day and six are for seeing by night. Every instant of his life he is planning to destroy or is actually destroying other insects around him.

There is no friendship between man and the fly, but the hostility between the spider and the fly is even greater and the fear of the fly for the spider is constant. The fly does not have any instinctive fear of the fly swatter. When the swatter descends upon him he gets out of the way or tries to get out of the way because the shadow of the swatter warns him there is danger approaching. The spider, however, is always present and something the fly can study with greater deliberation.

The remarkable muscular development of the spider makes it a terror to all other insects. The jumping spider is one of the most terrible of insect monsters. The jumping spider can spring many times its own length. If it were as big as a horse it could jump a quarter of a mile. If it were as big as a horse and should be turned loose on a city street it would be able to jump several city blocks in its quest of prey. It would keep the human race in a constant state of terror.

Man would never have reached the high state of civilization he now holds had this world been filled with such horrible monsters as fill the world of the spider. Small houses could be ruthlessly knocked down by the spider as big as a horse. Man's time would be occupied in running from place to place and hiding from the monster. Man would have to live in rocks and caves. Should a spider as big as a horse suddenly descend on the land now, man could annihilate him with his cannon and other fighting machines of civilization; but had the spider landed when man was in his infancy he would not have had time to have developed wonderful agility. Unlike some of the other spiders the jumping spider cannot see at night. Four of his eyes are in front and four in the rear so he can see coming and going.

No one can slip up behind the jumping spider and stick him in the back. All fights of the spider must be in the open. The jumping spider can sit on a branch and throw out an elastic line strong enough to bear its weight and Mr. Spider can traverse that line with ease.

The spider's claws are of polished chitin and are as sharp as sword points. Each has an aperture leading to a sack filled with deadly poison. Were the spider as big as a horse and as agile as it now is it would strike terror to anyone meeting it alone. Its array of eyes of different sizes, its mottled, hairy skin covered with hollow sensitive bristles would strike terror to any animal meeting it.

COULD MAKE MAN'S STRUGGLE TERRIBLE.
Primitive man doubtless had many hardships to contend with. He doubtless fled in time without number to the caverns where he hid himself in terror and fear. Remains of the monsters of the time of early man show they must have been terrible to contend with, but they were not as compared with the monsters which today pursue the insects.

Insects have to be alert every instant of their existence. Insects which are not on the watch every second fall to we. They are killed without warning. Their deaths are horrible ones too. Spiders seem to take keen delight in torturing their prey. They are the Indians of the insect world. They never kill their prey outright. They love to poison the insects they wish to kill and after poisoning them let them die a slow and horrible death.

The wolf spider is the most terrible of all. He is the one with day and night eyes. Around his eyes are rows of poison fangs so he is almost invulnerable from attack. Be-

hind the fangs and hidden in their shadow is the spider's mouth. The mouth is toothless and is for sucking only. The wolf spider lives mostly by sucking the liquid part of its prey, corresponding to the blood of higher animals.

Should the wolf spider live among us and be as big as a wolf it would leave our mangled bodies lie while it would suck only our blood. It would leave our bodies distorted from the effects of the poison. The wolf spider does not spin a web. It lives in a silk lined hole six or eight inches deep which it digs in the ground and around the entrance to which, out of sticks and grass and earth it builds a turret or watch-tower. From the tower it can watch its prey and inflict the most terrible wounds with a bound and thrust of its poison fangs. When it has eaten all it wishes it can crawl back into its den again and sleep in the silk lined dungeon.

The spider, however hostile it may be to other of its associates is considered as a friend of man. The spider kills flies and cockroaches which are inimical to the welfare of man.

Recent agitation against the fly has been so vigorous that all know of that insect's danger. The fly lives in filth and is a carrier of disease which flourishes in filth. In former days we considered flies annoying. Today we know they are destructive. The fly is now blamed for carrying typhoid germs. Typhoid doubtless is carried through other agencies but the fact that the fly can carry it is responsible for the great hostility of man against the fly.

The fly also is a carrier of infantile paralysis.

The cockroach has been blamed for carrying cancer. There are several kinds of cockroaches. The jumping spider needs but to sting the cockroach and it will roll on its back with its heels in the air.

The cockroach is distinguished by its long flat body and thread-like antennae and shiny leathery covering which takes the place of our skin. The cockroach is mostly a nocturnal creature. When a light is suddenly switched on in a room where there are many cockroaches they will be seen scurrying in all directions. They love the dark and fear the light. It is in the light that the day time spiders kill them best. The spiders which can see by day and by night do their destroying all the time and the cockroaches cannot defend themselves from them. But the day-light spiders are the most numerous.

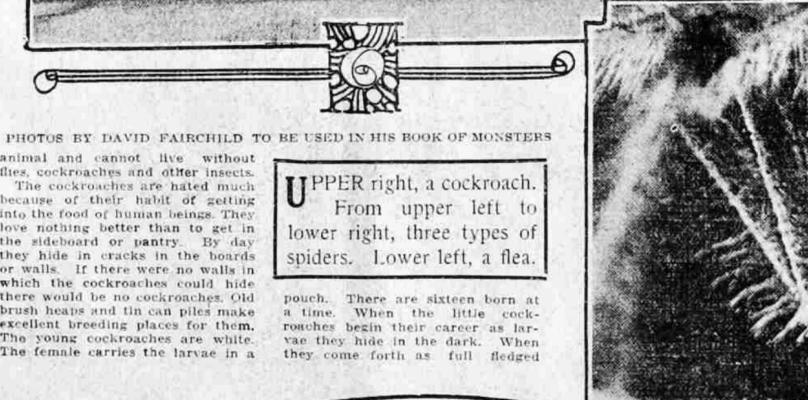
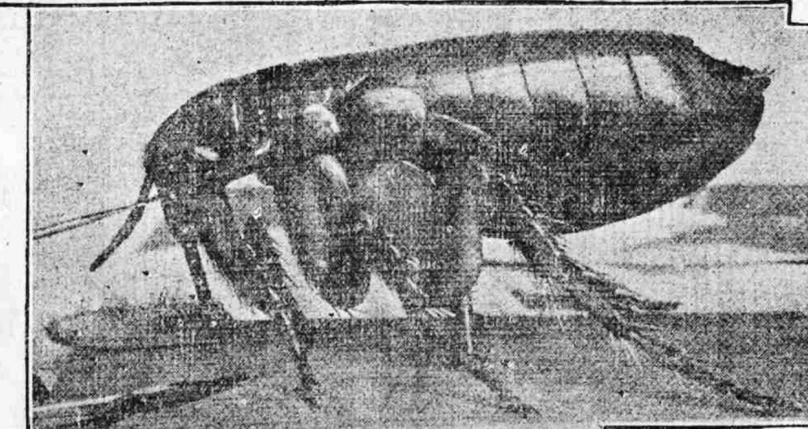
FEAR OF SPIDERS CAUSE OF DEATH.

Fear of spiders by human beings is the cause of the spider's death. They look so bad that they spread terror wherever they appear and cause men and women to slay them. If they were allowed to live they would doubtless do more good than harm, even though many of the spiders are venomous. There will be no spiders where there are no insects. The spider is a carnivorous

animal and cannot live without flies, cockroaches and other insects.

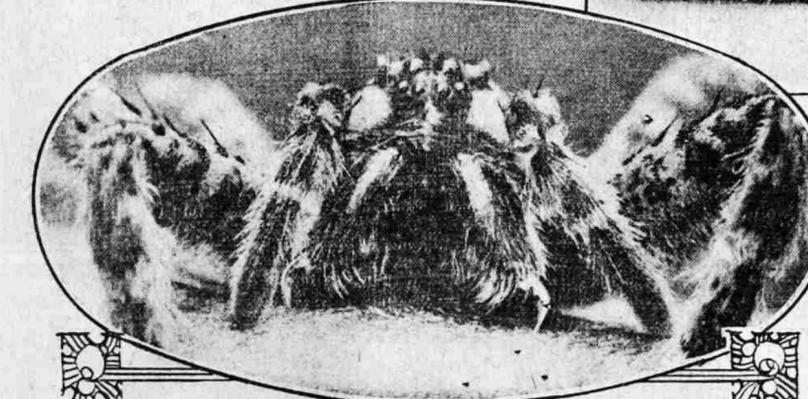
The cockroaches are hated much because of their habit of getting into the food of human beings. They love nothing better than to get in the sideboard or pantry. By day they hide in cracks in the boards or walls. If there were no walls in which the cockroaches could hide there would be no cockroaches. Old brush heaps and tin can piles make excellent breeding places for them. The young cockroaches are white. The female carries the larvae in a

bag. There are sixteen born at a time. When the little cockroaches begin their career as larvae they hide in the dark. When they come forth as full fledged



PHOTOS BY DAVID FAIRCHILD TO BE USED IN HIS BOOK OF MONSTERS

UPPER right, a cockroach. From upper left to lower right, three types of spiders. Lower left, a flea.



cockroaches they immediately begin to eat. They have voracious appetites. They cast the skin six times before they become mature, but they eat voraciously all the time.

The West Indies cockroach is the most disagreeable of all. Like all other species it emits a disagreeable odor. It is two inches long when fully grown and eats as voraciously

temptation to go after treacle anywhere. It will jump into the water and drown.

The bait can be placed after the lights are all out. As long as the treacle remains the cockroaches will touch nothing else according to men who have studied the habits of the cockroach.

Another harmful insect the spi-

der loves to destroy is the flea. It is believed the flea is responsible for the bubonic plague. At least it has been proven that fleas exist where bubonic plague exists. The flea also lives in hidden places and shuns the light.

One sting of the spider is sufficient to send the flea to the spider world.

Birds are too slow to catch fleas. The flea can jump so many thousand times his own length and jump so quickly they can get away from such a big awkward clumsy thing as a bird. The flea, however, cannot get away from the quick action of the spider. The flea and the spider are a match for each other. The spider, however, does not care so much about catching fleas as

cockroaches.

The cockroach is a bigger animal and makes a better feed. The cockroach is well equipped for discerning the approach of the spider. When the cockroach senses the spider it uses its long spindly legs to hop itself quickly in the nearest hole. The spider was the dominant creature of carboniferous times. It crawled over the giant ferns and club mosses which composed the undergrowth of that period.

The animal of today is a degenerate. It has adapted itself to present conditions and can live in spite of a changed world. For protection it carries its head tucked under its body and even carries its head that way when looking for food. Its whip like antennae are always in motion to detect at long range the presence of anything edible or anything hostile.

Mother—Ethel, are you saving anything for a rainy day?
Ethel—Yes, mother. I never wear my silk stockings around the house.

UNIVERSITY OF PENNSYLVANIA STUDENTS SUPPOSED TO HAVE SUICIDE CLUB

Three students in the University of Pennsylvania recently committed suicide within eight days. Each one chose a different method of ending his life. This seeming epidemic of self-destruction at the university has given rise to the belief that there is a suicide club among the students. This suggestion has been vigorously denied by the authorities of the school and by the leaders of the various student organizations. It is said that none of the three men was acquainted with the other, and that the existence of a suicide pact was impossible.

In each case, however, there was no apparent cause. Disappointment in love, failure in studies, despondency and ill health have been advanced as the reasons, but there is no proof of any of these. Mental suggestion has been given as the cause of the last suicide. The other two deaths within a week had caused intense excitement among the students, and it is believed by some that this influenced the third

man to end his life.

The first of these tragic events in the extraordinary chain was when Addison Hartley McCullough of Pittsburgh was drowned in the Delaware River. There were circumstances which indicated that his death might have been accidental, but it is generally believed that he committed suicide.

Five days after McCullough's death, Wardell T. Towneley shot himself while under a tree on a lonely road in the suburbs of Philadelphia. Under his body lay a revolver which he had bought only a few days before. One chamber was empty; in the others were bullets which had been sharpened to fine points. Evidently Towneley had meditated on death and had planned it with that excess of care which is peculiar to scholars who take their own lives.

Some students declared that Towneley killed himself on account of the loss of McCullough, his intimate friend. But Towneley's fra-

ternity brothers assert that he never knew McCullough. Still other students said that Towneley had been behind in his studies and was despondent because of the possibility of his failing in his examinations. This was contradicted by the report that he was a brilliant student and that his mind must have given way under the strain of keeping up this fine record. But it was learned at the university that he was a good student, though not a brilliant one; so both of these statements appeared to have no foundation.

The news of Towneley's death immediately brought theories of a suicide pact between him and McCullough. According to these reports McCullough had quarreled with his sweetheart, a young girl living near the university. He had determined to go to Europe, believing that new scenes, new associations and new experiences would enable him to forget. He had asked Towneley, his friend, to accompany him and Towneley had consented. The two

obtained permission from the university to make the trip and had arranged to sail from New York.

But, according to this story, McCullough told Towneley the trip must be abandoned; he had been unable to obtain the necessary money. McCullough attended a dance the next night. Leaving there he went to the Snyder Avenue Pier and plunged into the river. Whether his drowning was by accident or design is not known. This story of a love affair, however, was not circulated until the suicide of Towneley. It had not been given as a reason for McCullough's death.

A note was found on a desk in Towneley's room, addressed to his father. It was as follows:
"Good-bye, I am tired of living. I am going to kill myself. Please forgive me."
"WARD."

Members of Towneley's fraternity declared that the story of Towneley's having agreed to go to Europe with McCullough was false, but they had no theories or motives to offer and

little to say of Towneley's actions in the weeks preceding his suicide.

"He never knew McCullough," said one of the members. "They went to different schools of the university. They belonged to different fraternities. They had nothing to do with each other."

Three days after Towneley's death Raymond Francis Feldman was found dead in his room. He was sitting in an arm chair with a blanket wrapped around him, between his teeth was a tube which was connected with a gas jet. The cracks around the door had been carefully stuffed with cloths. Lying on his table was a letter from his mother and Bacon's essay on "Death."

Feldman was morose and taciturn, it is said. He never joined a club of any kind and avoided the society of other students. He was repeating his second year in the law school and was in danger of failing again.