

## NATURE RAMBLINGS

BY FRANK THONE

*Natural History*



### False Alarms

With the coming of later autumn and winter in sight, we may expect local fruitstore thrillers, when some one opens up a new bunch of bananas and finds a hairy monster of a tarantula staring him in his startled face. If the big spider is not forthwith sent to Limbo with a broom or box-end, it may be captured and set on a counter in a glass jar, for the shuddering admiration of the multitude. And many will be the tales of its instantaneous deadliness. Apparently the majority of even well-informed persons still believe that a tarantula can leap twenty or thirty feet, and that its bite will kill you within a few seconds.

Nothing could be farther from the fact. The fruit tarantula can not jump at all; even its running is sluggish, at least at the end of a long voyage and rail journey. And even if it could make such leaps it would be virtually leaping in the dark, for tarantulas are so short-sighted that they pay no attention to objects only a few inches away from their numerous eyes. It is highly probable that they can not really see anything at all, but merely distinguish moving from stationary objects. So why jump at something you can't see?

As for his deadliness, that is equally exaggerated. Most tarantulas won't even offer to fang you unless you pick them up and squeeze them, or blow tobacco smoke on them, or otherwise offer them insult. Venom is expensive, and isn't to be wasted except in self-defense. And even if Mrs. T. does decide to take a whack at you, the chances are that all you'll get out of it is a sore hand and maybe a headache. Dr. E. H. Ewing of the U. S. National Museum keeps a few pet tarantulas in cages in his laboratory all the time. He lets them parade up and down his arm for the delectation of visitors. And he's never been bitten yet.

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## Undersea Camera Gets Tide Data

*Oceanography*

A unique motion-picture camera, recording automatically the velocity and direction of currents beneath the surface of the water, was used to advantage this past summer by the U. S. Coast and Geodetic Survey during what is stated to be the most comprehensive survey of tide and current conditions in Chesapeake Bay ever attempted.

While the device is so new that it has not yet been perfected fully, it has shown results that indicate it will be used as a regular part of standard current testing equipment. The camera is designed to take the place of a complete human observing unit composed of one boat, one officer and six men. It contains within it a compass and revolution dial of which pictures are made each half hour, and works continuously without attention for an entire week.

The purpose of the Survey's work this summer was to bring aids to navigation, such as mariner's charts and current tables, absolutely up to date. From the data gathered this

year and last, current tables will be published from which at any future time the direction and velocity of currents at any place in the Bay may be ascertained. The information likewise will be valuable in enabling engineers of surrounding cities to make proper disposal of their sewage. They must know at precisely what point the ebb of the tide will be able to convey the sewage farther out to sea than the flood current is able to bring it back.

Fishing interests will be aided by the data since certain fish are known to bite better at certain tidal stages than at others.

Headed by Lieut. George L. Anderson, the Survey engineers, four all told, conducted their investigations from four 65-foot launches. A unique feature was that 24 college boys, selected from leading universities in the East and Mid-West, acted as special observers, their purpose being to gain technical experience to add to their engineering knowledge.

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### Storms Cause Static

*Radio*

Thunderstorms are guilty of the production of the static that occasionally interrupts radio reception, especially in summer. They also cause the formation of cathode rays—the rapidly moving electrons or atoms of electricity that cause X-rays when they are stopped by a heavy metal. This is the opinion of R. A. Watson Watt, British government radio engineer. But even though this static is the bane of good radio reception, it has its use, said the speaker. The weather observer can use this to locate distant thunderstorms, and he told the scientists how he had developed a special form of radio direction finder for the purpose. An experimental receiver of this kind has been ordered by the U. S. Navy, he stated. Several years ago, when the U. S. Navy was experimenting with a receiver for getting weather maps on ships at sea, some similar experiments were made. The weather map receiver, the invention of C. Francis Jenkins of Washington, was attached to a direction finder, and the course of the tropical hurricane which later struck Miami was recorded.

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The world wheat crop for 1928 is estimated to be lower than in 1927.

### Pueblos Lacked Vitamins

*Physiology*

The cliff dwellers who lived in the canyons of the southwest in prehistoric times never heard of vitamins and ultra-violet light, but a lack of these undreamed-of necessities was a main cause of their downfall, according to Dr. Walter Hough, of the Smithsonian Institution.

The decay of a race is one of the great problems of the world, Dr. Hough showed. The reasons for the passing of ancient cities and tribes may point a valuable and timely warning to modern civilizations.

A study of the food supply of the Pueblos was made in order to see whether it would account for their mysterious dwindling, beginning about 1000 A. D., long before the white man disturbed their country. Corn was their great food, and their diet was about 85 per cent. grain, the rest being meat and vegetables. The ration was adequate for sturdy adults but in winter the diet must have lacked in fat and vitamins and the children suffered, the scientist stated. Lack of fuel must have caused insanitary huddling in dark rooms of the pueblo in winter and this also weakened the babies.

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