



### Garden Spiders

**H**ANDSOME though repulsive, the fat garden spider hangs head downward in the center of the marvelous fabric that it would seem no living thing would have the skill to construct. It is little wonder that the ancients looked upon the spider as a transformed weaver, so skillful that she had had the hardihood to challenge the goddess Athena. Even yet the name, "arachnid," given by scientists to the whole spider clan, is a monument to the proud and luckless weaver Arachne.

If one has the patience to watch the work of one of these orb-weaving spiders, some quiet, warm night, he will see a sight that will make him wonder whether after all, there isn't something in the old legend of a bewitched intelligence back of it. First Arachne stretches a rough polygon of cables between the twigs, by dropping for the vertical members, and by swinging or leaping for the horizontal strands. Then she criss-crosses this with the radiating spokes of her wheel; these also are strong threads, without any sticky stuff on them. Next she runs in one wide-spaced spiral, again without any glue. Finally she works in the close-set, sticky, fine meshes of the web, that constitute the real working parts of her snare. As a finishing touch, she writes her signature in broad, zig-zag strokes of white at the center, and then takes her station, with a foot on each of the radiating signal-lines, to wait for customers.

If one sees a second spider, considerably smaller than the web-maker, hanging around, that is Arachne's husband. He is one of the unfortunate of the earth. His mistress tolerates his presence during the courtship, but after the wedding she eats him.

*Science News Letter, July 11, 1931*

### MEDICINE

# Studies Show That Alcoholism May be Part Cause of Pellagra

**E**VIDENCE that pellagra, the distressing skin ailment which has become known as the hardtimes disease of southern states, may be caused by alcoholism as well as by improper diet was recently presented to the Medical and Chirurgical Faculty of Maryland by Dr. Thomas R. Boggs, chief physician to the Baltimore City Hospitals.

With Dr. Paul Padgett of Baltimore, Dr. Boggs has studied cases of pellagra at the hospital during two ten-year periods, from 1911 to 1920 inclusive and from 1921 to 1931. They found that alcohol is playing an increasing part in the development of pellagra.

In the first period, there were 24 cases of the disease. Five of these cases, or 20.8 per cent., were due to excessive use of alcohol. In the second period, however, there were 78 cases of which 35, nearly half, were of alcoholic origin. The increase in the total number in the second ten-year period corresponds to the increased capacity of the hospitals, Dr. Boggs explained, and to the increased total admissions, so that the greater percentage increase of alcoholic cases is truly representative of the alcoholism and not merely of a greater total admission.

### Vitamin G Needed

This research of Drs. Boggs and Padgett suggests possible additional factors in the cause of this disease which has made its appearance rather recently in the United States, although it was known for centuries in Europe. At first it was thought to be caused by a germ and to be contagious. This theory was disproved by studies made by Dr. Joseph Goldberger and associates of the U. S. Public Health Service. These scientists declared that their investigations showed it was due to lack of an important factor in the diet which they called vitamin G. This factor is found plentifully in lean meat, milk, eggs, and yeast, and in smaller amounts in some vegetables.

This vitamin factor is certainly basic in the cause of the disease, Dr. Boggs said.

"But alcohol per se or other substances in the present day bootleg supply may play a part," he continued.

It may be that the liquor acts to inhibit the vitamins, and so causes the disease, or the disease may occur purely because of the irregular and insufficient food supply of the man on a spree, Dr. Boggs suggested. This last, however, would not apply so well to the regular heavy drinker, he thought.

Pellagra is primarily a skin disease with a characteristic eruption and discoloration. It looks somewhat like a severe sunburn, and attacks the hands more severely than any other part of the body. It has also nervous complications and rather serious mental disease develops in advanced cases of pellagra.

*Science News Letter, July 11, 1931*

### ANTHROPOLOGY

## "Giant" Indian Skeletons Turn Out to Be Ordinary

**A** GAIN a find of allegedly "giant" skeletons in an ancient Indian burial ground turns out to be a lot of perfectly ordinary burials of rather ordinary redmen. Two scientists from the University of Illinois investigated the recently reported find at Edgemont, near East St. Louis, Ill., and have reported to Science Service that there is nothing out of the ordinary about the skeletons at all.

When first discovered by workmen, the skeletons had fallen apart somewhat, due to the complete decay of the tendons and cartilage connections that had once held the bones together. Not allowing for this false increase in height, the workmen measured the bones as they lay, and reported a race of giants eight or nine feet tall. This failure to allow for the lengthwise shifting of the bones after the decay of all the connecting tissues is the common cause of erroneous reports of "giant skeletons" that get into circulation, explains Dr. A. R. Kelly, University of Illinois anthropologist.

Another unfortunate error made by the workmen was the complete removal of the bones from the positions where they were found, which made it impossible for the anthropologists to confirm the report that the skeletons were found face downward in two convergent lines.

*Science News Letter, July 11, 1931*