

## Predicts California Rains

Seasonal weather predictions on a strictly scientific basis are being undertaken by Dr. George F. McEwen of the Scripps Institution for Oceanography, La Jolla, Calif. Dr. McEwen has been making a close study of the correlation between the annual rainfall of Southern California and the water temperatures of the ocean for over ten years, and has discovered an apparently constant connection between the two phenomena. For the coming winter rainy season, Dr. McEwen has issued the following statement:

"The average of the observed seasonal rainfall at six selected stations from San Diego to Los Angeles for the ten-year period, 1916-26, was 12.0 inches. The average ocean surface temperature at the Scripps Institution pier, La Jolla, for the interval August 1 to October 15, 1926, was 67.4 degrees.

"According to the correlation, during the past ten seasons, between the ocean surface temperatures at the Scripps Institution pier and the observed rainfall of the 6 selected stations, the observed temperature of 67.4 degrees would indicate a seasonal rainfall for 1926-27 of 12.4 inches, which is slightly above the average."

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## HYGIENE

## Rat Survey to Oust Plague

A detailed survey of the rat population of the ports of South America and of the ships that leave them is about to get under way. When the countries in question have not the facilities for this enterprising piece of research, the Pan-American Sanitary Bureau will help them, according to Surgeon General H. S. Cumming, of the U. S. Public Health Service.

It has been noticed for many years by health authorities that certain ports which are constantly exposed to infection from bubonic plague do not become infested. Research carried on both here and in India indicates, Dr. Cumming declares, that this condition is due to the absence of the flea attacking both rats and human beings, that is the carrier of the causative germ.

The proposed studies on infected rats and the organisms they carry will give information, it is hoped, that will go a long way toward stamping out bubonic plague in the Western Hemisphere.

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ANNIE JUMP CANNON

## Classifier of Stars

"One star differeth from another star in glory," said Paul, and Miss Cannon's work has been to study these differences. For many years she worked on the great Henry Draper Catalogue of Stellar Spectra, which, now completed, fills nine quarto volumes, with data about 225,000 separate stars, and, this finished, she is now working on an extension of it.

Born in Dover, Delaware, on December 11, 1863, Miss Cannon graduated from Wellesley in 1884, and since 1897 has been connected with the Harvard College Observatory, working part of the time at the southern station of the Observatory at Arequipa, Peru. The Draper Catalogue is not her only great work, for she compiled a bibliography of variable stars containing 75,000 references. She has also done a large amount of actual observing with various telescopes, which led to the discovery of 200 variable stars, four "new" stars and one spectroscopic double star.

For her work, she was awarded in 1925 the honorary degree of Doctor of Science by Oxford University, in England, the first time that this venerable institution gave an honorary degree to a woman. Her alma mater, and other universities, here and abroad, have also honored her.

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Moving picture films made of cellulose acetate are not inflammable.

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## Cellulose Skins For Sausage

Science has produced the hygienically pure sausage! Queen Marie could now have an American breakfast of hot cakes served with sausages 100 per cent sanitary encased in artificial but eatable "skins" made of material that is first cousin to rayon.

The silky sausage casings are the outcome of several years research on the part of William F. Henderson and Harold E. Dietrich at the Mellon Institute for Industrial Research, Pittsburgh.

Animals from all over the Orient furnish the coverings for sausages as we have always known them. The source of supply has been more or less irregular while the expense of hand labor and difficulties of handling and cleaning, particularly the latter, have made a satisfactory artificial casing extremely desirable.

The fiber pulled off cotton seeds treated with chemicals as in the viscose process, is the source material of the new product. Machinery has been developed at the Mellon Institute which has demonstrated that thin semi-transparent tubes can be turned out in lengths and sizes to fit any sausage or wiener at a moderate price. They are used dry and will keep any length of time, an advantage not possessed by the animal variety, and can be stuffed with sausage "makings" much more rapidly than the old ones.

The inventors declare, presumably after personal tests, that "the sausages packed in cellulose containers are perfectly comestible and may be cooked in any manner and eaten with no difficulty."

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## BIOLOGY—GEOLOGY

## Petrified Deer Tracks

Deer tracks in what was once sand in the geyser region of Yellowstone National Park, but long since converted into rock by the deposition of dissolved silica, were among the striking curiosities discovered this season.

The tracks were very plain impressions about one-half inch deep in rock which was no doubt formed many hundreds of years ago by the flow of water depositing silica on the river bank from what is now an extinct geyser or hot spring. The process of hardening and cooling formed a conglomerate rock, like rough concrete.

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