

OCEANOGRAPHY

**Sand of Sea is Floated
By Vegetable Jelly**

GRAINS of sand "travel soft" when they are borne about on the sea bottom by waves and currents. They ride cushioned in a kind of vegetable jelly, researches of Dr. P. E. Raymond and H. C. Stetson of Harvard University have disclosed. The two Harvard scientists report their findings in *Science*.

In an effort to find when and how sea sand migrates along the bottom, the two investigators laid specially designed "sand traps" on the floor of the sea in a number of places. When they hauled them up and examined the contents they found that instead of just sand the apparatus contained a lot of gelatinous stuff.

Embedded in this were sand grains in great quantity, forming as much as 85 per cent. of the dry weight of the total catch. It appears quite likely that this jelly plays a considerable role in the distribution of marine sediments, floating sand and particles farther than they would be carried by the water if they were left to their naked selves.

The source of this natural jelly, which has been observed by other scientists but never closely studied until now, is still more or less of a mystery. Apparently, however, it comes from the decaying remains of eel grass, a very abundant underwater weed, with possible additions from seaweed and other marine vegetation.

Science News Letter, January 31, 1931

PUBLIC HEALTH

**Many Virulent Diseases
Found in Liberia**

DARKEST Africa now has light, but it has no health. Such at least is the case in the western corner of the continent that makes up the republic of Liberia.

The light of civilization was brought to that country over 100 years ago. That it has not brightened the scene is now being made apparent. One of the darkest sides of the picture is found in the health conditions of the country.

A host of tropical diseases and many non-tropical ones are rife there. Among them are malaria, blackwater fever, leprosy, elephantiasis, yaws, syphilis, smallpox, chicken pox, sleeping sickness, pneumonia, yellow fever, tuberculosis, rheumatism, dysentery, beriberi,

and nutritional diseases. About the only ones missing are bubonic plague and relapsing fever.

Public health and sanitation are absolutely lacking. There is no public water supply. Even in the capital city, Monrovia, wells and cisterns are the only sources of water. There is also no sewage system, and the wells are dug in the extremely porous soil of the back yards where the outhouses are found.

Three or four physicians and "one building called a hospital" represent the extent of medical facilities for the entire country of 43,000 square miles with a population of about 2,012,000.

In spite of extremely fertile soil and equable climate, the governing class of Americo-Liberians and all the visiting foreigners must get their fruits and vegetables out of cans. Such is the picture of the country painted by the Harvard African Expedition and by Dr. Howard F. Smith of the U. S. Public Health Service.

While the country is bankrupt, lack of funds is not the only hindrance to sanitation and health work, Dr. Smith found. He was sent to Liberia shortly after the last American Minister to the country, Charles B. Francis, died there of yellow fever. Dr. Smith expected to assist the Liberian government organize its sanitary and public health activities, particularly with reference to the eradication of yellow fever, in accordance with an agreement between the American and Liberian governments. He has returned because complete lack of co-operation from the Liberian government made his mission a failure.

Liberia's diseases and her lack of public health work are not without importance to the rest of the world. The country has been called "one of the festering spots of West Africa." Liberia's immediate neighbors, Sierra Leone, Nigeria and the Gold Coast Colony, all have active departments of public health, and all are concerned over the situation in Liberia. These other countries have tried to stamp out yellow fever within their own borders. Yet they can never feel safe because the disease is always present in Liberia, and may at any time be brought over the border.

Liberia does not report her health conditions to either the League of Nations or the Office International, and never has done so, although she is a member of the League and a signatory to the International Sanitary Convention of 1926.

Science News Letter, January 31, 1931

IN SCIEN

ARCHAEOLOGY

**Roman Helmet Is Found
In German Village**

A ROMAN helmet in a splendid state of preservation, probably once the property of an imperial officer, has been unearthed in Nida-Heddernheim, near Frankfurt-am-Main. There was once an extensive Roman encampment there, the exploration of which is described by Dr. Karl Woelcke, of the municipal historical museum at Frankfurt.

The helmet, which is richly ornamented with silvered bronze, has a pronounced flare at the bottom of its neck-piece, giving the wearer's shoulders partial protection. It is also provided with hinged flaps to cover the cheeks and jaw.

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CHEMISTRY

**Dying Chemist Treated
With Radium He Isolated**

RADIUM that he had isolated from American ores aided in the fight to save the life of Dr. Richard B. Moore, chemist, who succumbed to brain tumor and double pneumonia at Memorial Hospital in New York last week.

About half of the million dollars' worth of radium extracted by Dr. Moore's process by the National Radium Institute at Denver which he directed just before the war was sent to Memorial Hospital for the treatment of cancer. When Dr. Moore became ill with brain tumor that could not be removed surgically, he came to New York where the powerful radiations of the element he produced could be used in attacking the disease.

While with the Bureau of Mines, Dr. Moore pioneered in the extraction of helium from natural gas which gave American airships a safe, non-inflammable lifting gas. He was chief chemist of the Bureau of Mines from 1919 to 1923. At the time of his death he was dean of science and head of the chemistry department at Purdue University.

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CE FIELDS

CHEMISTRY

Industrial Interest in New Cornstalk Material

SO MUCH public interest has been aroused in the substance, maizolith, developed by C. E. Hartford, Jr., at the U. S. Bureau of Standards, that the Bureau has had to take up the work again to meet the demand for samples.

The story of maizolith concerns a senior student at the Iowa State College and his laboratory thesis.

Young Mr. Hartford, who was working for a degree at Iowa State, discovered that if cornstalk pulp is put through certain mechanical operations and then combined with water, it will form a tough jelly. When this jelly dries it is tough and horny and much like hard rubber.

The Bureau of Standards asked Mr. Hartford to come on the government payroll and work on his cornstalk rubber. Mr. Hartford came to Washington, completed his work, wrote a paper on it, and resigned. The Bureau considered the matter closed and the work finished, but suddenly there developed such a continuous public demand for samples of maizolith, that a man had to be put back on the cornstalk rubber detail.

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ASTRONOMY

Eros' Brightness Seen Becoming Steadier

THE variability of the asteroid Eros is rapidly dying out, and it is shining with a steadier light as it approaches the earth. According to observations made at the Harvard Observatory by Leon Campbell, the amplitude of these variations in brightness has decreased fifty per cent. in fourteen days, and the variation is now only half a magnitude.

This behavior on the part of Eros is similar to that observed at Harvard by Wendell during the favorable opposition nearly thirty years ago. The complete dying out of the asteroid's variability during the next few weeks is a possibility.

Photographic observations at the Nantucket Observatory before Christmas showed a thirty per cent. increase in the range of variability.

The variability, or periodic change in brightness, is supposed to be due to differences in the reflecting qualities of different parts of its surface, as the asteroid spins about on its axis once in every five hours and sixteen minutes. The decrease in variability may be due to an improvement in the reflecting angle between the sun, Eros, and the earth, as we get closer to a straight-line position in space; for the period of variability remains the same though the amount of variability has greatly decreased.

This was the interpretation placed by H. E. Burton, astronomer of the U. S. Naval Observatory, upon the report from Harvard.

Science News Letter, January 31, 1931

SOCIOLOGY

Proportionately Less Crime News Published

CONTRARY to popular belief, modern newspapers present news of crime much less extensively than they did 25 and 40 years ago.

The amount of crime material available for publication, measured by court records, has nearly tripled since 1890, and yet newspapers have actually decreased the percentage of their news space devoted to crime.

Sensational sex crimes are not nearly as important to the city editor of the present decade as they were to his predecessor in 1905; and such stories were even more eagerly sought and published by editors of the gay 90's.

These are some of the facts learned by Dr. Frank Harris of Elmira College, Elmira, N. Y. Dr. Harris based his conclusions on detailed examination and study of crime news published by three newspapers of Minneapolis during 1890, 1905 and 1921. Court records for the same years were examined so that proper allowance could be made for the increase of crime.

Dr. Harris believes that his results will apply generally throughout the country, as all newspapers of the United States conform largely to a standard pattern. He also thinks that the decrease in attention given crime news continues past 1921, the last year of the study, though not as rapidly as between 1905 and 1921.

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ARCHAEOLOGY

Scientists Study Mound As Contractor Destroys It

VALUABLE data regarding the mound builders of prehistoric America have been obtained at the famous Powell Mound on the outskirts of East St. Louis. The mound was one of the largest of the Cahokia group, and was most symmetrical, and perfectly preserved.

Destruction of the mound by steam shovel was begun during December to provide soil for truck growing. Real estate developments made the price too high for straight purchase and inclusion of the mound in the Cahokia State Park, but the University of Illinois has maintained an archaeological field party on the site during excavations.

It is now shown that the Indian mound was built in successive stages. A unique burial platform inside it was carefully explored by trowel by the archaeologists. A remarkable wooden object covered with sheet copper is a relic of a game played in this region in early times. And thousands of shells show that these Indians had contact with Florida and the Gulf of Mexico.

Science News Letter, January 31, 1931

SOCIOLOGY

One-Fourth of Widows Less Than 21 Years Remarry

WHETHER a woman is likely to marry again after losing her husband depends a great deal on her age at the time she becomes a widow, Dr. Frank M. Phillips found when he made an investigation of the duration of widowhood as chief of the statistical division of the U. S. Employee's Compensation Commission.

Over one-fourth of the young widows under 21 years of age marry during the first two years after the death of the husband. And the number of remarriages decreases proportionately with the age of the widow. Only seven remarriages occurred among the 604 widows who were 45 or over.

Only a few remarriages occur during the first year of widowhood. The greatest number, 67 out of the 1,915 widows studied, remarried during the second year. A total of 304 remarriages took place, that is, about 15 per cent. of all the widows remarried during an average of six years of widowhood covered by the study.

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