

## ENGINEERING

## Public Works Department Urged as Budget Saver

A SEPARATE and new branch of the government, a Federal Department of Public Works, was urged by speakers addressing the American Society of Civil Engineers in New York.

In normal prosperity years construction is the second largest industry in the nation. From 1926 to 1933 the yearly average expenditure for construction was \$9,000,000,000, and directly or indirectly employed five million men. As the bottom dropped out of private construction, the federal government through WPA and many other agencies stepped into the breach and gradually assumed a larger and larger place in the nation's construction industry.

The function of a Department of Public Works, said Alonzo J. Hammond, Chicago consulting engineer and a past president of the Society, would be to coordinate and effect economies in the ramified building activity of the government which is now scattered through many departments. Surveys made in the past estimate that \$50,000,000 might be saved for every billion dollars spent for public works by a unified and coordinating control. Virtually every type of building by the government, except the military works of the War Department, would be in the province of the proposed department.

Back in 1924, said Mr. Hammond, representatives of 60 separate engineering organizations met in Washington and recommended such a department. Herbert Hoover, then Secretary of Commerce, urged the formation of the department not only because it affected saving in planning and operation costs but also because its value "would be more in leadership for the great balance wheel of construction which lay in government construction work."

*Science News Letter, February 12, 1938*

## SEISMOLOGY

## Hawaii Earthquake Records Fly Nearly 5,000 Miles

SPED through the air via clipper plane to San Francisco, thence by transcontinental mail plane to Washington, photographic copies of the seismograph records of the Hawaiian earthquake were recently received by the scientists of the U. S. Coast and Geodetic Survey. The copies left Honolulu on Tuesday, Jan. 25, and were delivered to the Survey at the opening of the

business day, Friday, Jan. 28. Shortest map distance for the flight is 4,800 miles; actual travel distance is probably somewhat greater.

The records came from two seismological observatories in Hawaii: the Hawaiian Volcano Observatory and the station of the U. S. Coast and Geodetic Survey on the campus of the University of Hawaii.

Study of the wiggly lines enabled the Survey seismologists to spot in the epicenter of the earthquake with new accuracy. It was located about thirty miles northeast of the island of Maui.

*Science News Letter, February 12, 1938*

## SEISMOLOGY

## Violent Earthquake Occurs In Western New Guinea

VIOLENT earthquake shocks wrenched the western end of the island of New Guinea in the East Indies early on the morning of Wednesday, Feb. 2.

Seismologists of the U. S. Coast and Geodetic Survey, after examining data collected by Science Service, stated that they believed great loss of life, with destruction of native towns and fishing craft, must have occurred. The disturbance was felt as far away as the northern coast of Australia.

Direct dispatches by cable and radio often lag many days behind instrumental reports, when a severe earthquake occurs in an out-of-the-way place.

The epicenter was determined as in latitude 4 degrees south, longitude 132.5 degrees east, near the coast of the Banda Sea. Time of origin was 4:04.4 a. m., local time, or 2:04.4 a. m., on Tuesday, Feb. 1, on the Eastern Standard Time basis.

A large number of observatories, including three in the Pacific Ocean area, transmitted their reports to Science Service. They were as follows: Manila, P. I., Observatory; Zikawei, China, Observatory (near Shanghai, transmitted via Manila); the British observatory at Apia, Samoa; Dominion Observatory, Ottawa, Ont.; Dominion Meteorological Observatory, Victoria, B. C.; the University of California, Berkeley, Calif.; Pennsylvania State College; the University of Montana; the Franklin Institute, Philadelphia; stations of the Jesuit Seismological Association at St. Louis University, Georgetown University, Fordham University, and Canisius College; and the observatories of the U. S. Coast and Geodetic Survey at Tucson, Ariz., and Honolulu, T. H.

*Science News Letter, February 12, 1938*

# IN SCIENCE

## EUGENICS

## Earlier Marriage Is Rule Among Intelligent Men

ALL SORTS of things have been boosted as aids to romance—everything from soap to sock supporters. Add now: Phi Beta Kappa keys.

The most intelligent of a large group of college graduates investigated statistically by Dr. Raymond R. Willoughby of Brown University married earlier and had more children than their lower-browed classmates (*Science*, Jan. 28.) Of the "high" group, 9 per cent. were already married at 23 years of age, while only 4 per cent. of the "low" group had taken mates. At 29 years, 40 per cent. of the "high" group were still bachelors, but 52 per cent. of the "lows" were also on the waiting list.

Causes? Dr. Willoughby will not commit himself flat-footedly. He suggests:

"One may speculate that they marry earlier because their superior intelligence enables them to establish themselves economically earlier—although it seems remarkable that differences as small as those between high and low scoring college men, and in a trait with such limited correlations with practical abilities, should be as effective as this."

*Science News Letter, February 12, 1938*

## ENGINEERING

## Bombproof Power Plants For European Industries

BOMBPROOF power plants are being constructed to serve some of Europe's chemical and munitions plants. A typical one, comprising high-pressure boilers and a small but powerful steam turbine generator set, is set into a tunnel driven into the face of a cliff.

These plants are not intended for immediate use. They are maintained in standby condition until emergency demands their operation. It is even possible to arrange automatic valve systems so that if enemy bombing puts the outdoor plant out of commission the bombproofed reserve plant goes into action at once.

*Science News Letter, February 12, 1938*

# E FIELDS

## PUBLIC HEALTH

### It's a Measles Year; Smallpox Also High

**I**T'S A MEASLES year. A survey just issued by the U. S. Public Health Service shows that almost five times as much measles occurred throughout the country during the last four weeks of 1937 as during the same period of 1936. The number of cases is still increasing. For the week ending Jan. 15, latest on which figures are available, there were nearly 16,000 cases, an increase of 300 cases over the week ending Jan. 8, and half as many cases as the high figure for the total cases in December, 1937.

Smallpox is also on the increase and is especially prevalent in the midwest. For the week ending Jan. 15, there were 727 cases throughout the country, as compared with 315 cases during the corresponding week last year. The number of smallpox cases reported for the last four weeks of 1937 was 1,338. This is the highest number recorded for the month of December in the last 6 years.

Smallpox can be prevented by vaccination.

*Science News Letter, February 12, 1938*

## HISTORY OF MEDICINE

### Second Tercentenary Of Quinine Celebrated

**T**HE 300th anniversary of the first recognized use of cinchona for malaria is probably going to be celebrated throughout the world this month although the same 300th anniversary was also celebrated nearly eight years ago in St. Louis.

Since cinchona has given mankind quinine, sovereign remedy for that ancient and disastrous plague of chills and fever, malaria, no one is likely to begrudge it a second 300th anniversary celebration.

The present celebration will mark the 300th year since Countess Ana de Chinchon, wife of the viceroy of Peru, was cured of intermittent fever by means of the bark which ever since has borne her name, cinchona. Records in the Missouri Botanical Garden at St. Louis show that eight years earlier, in 1630, the Spanish corregidor, Don Juan Lopez de

Canizares, was cured of the intermittent fever by the use of this same cinchona bark. In fact, it was this corregidor who, learning of the illness of the Countess, sent a package of the powdered bark to her physician. The Missouri Botanical Garden consequently staged a cinchona celebration in 1930.

The Peruvian Indians had known of the bark's value as a remedy for the fever we call malaria long before 1638 or even 1630. They called the bark "quinaquina" which gave quinine its name when that medicine was isolated from the cinchona bark in 1820.

The discovery of the way malaria is spread by certain kinds of mosquitoes has made it possible to bring the disease under control to some extent, but malaria is still a scourge in many parts of the world. The League of Nations Malaria Commission therefore recently announced that it officially advises a daily dose of quinine as malaria preventive during the malaria season in those regions where the disease is prevalent.

*Science News Letter, February 12, 1938*

## INVENTION

### New Cheap Records Make "Talkies" of "Funnies"

**A**METHOD for making cheap phonograph records for distribution with newspapers, as the sound part of comic strips and other features appealing to children, has been patented. William G. H. Finch of New York City is the inventor. His patent, No. 2,106,245, covers a scheme for manufacturing the records on mats at high speed.

Sacrificing high fidelity reproduction and durability for cheapness of processing, Mr. Finch's method involves making the record exactly as an ordinary phonograph record except that a dull stylus would be used in order to get a broad track so that mat flong (a material used to prepare stereotype reproductions of type for simultaneous printing on several presses) could be used as the record material.

"The newspaper sound record supplement," Mr. Finch declares, "is particularly suitable for 'reading' the comic strips to youngsters or to convey the actual speech intended by each character of the comic strip in the proper sequence for enacting the scenes of the strip."

The records would be discarded after being played through once or twice, the inventor suggests. They can be played on any standard phonograph, it is claimed.

*Science News Letter, February 12, 1938*

## NAVAL ARCHITECTURE

### New American Liners May Be Built Without Stacks

**T**HE LONG awaited luxury liner minus the traditional smokestacks may make its appearance in American ports some day in the three merchant vessels adapted for conversion to aircraft carriers in war time, proposed by the U. S. Maritime Commission.

Marine engineers, should the three ships actually be designed and built, may resort to blowers to force smoke out vents in the stern or sides of the ship in place of the customary aircraft carrier island, Admiral Emory S. Land, member of the commission, stated. Center smokestacks of the conventional type are eliminated because of the need for a clear landing space.

Such an approach is only one of the many novel features vessels of this type would possess, Admiral Land stated.

A superstructure with a large top deck readily convertible into a landing deck would be a requisite, he stated. The ship's center of gravity would have to be low so as to give the ship stability when the topheavy landing deck is put on, he pointed out.

The Maritime Commission is interested in the possibility of building three such ships for the United States-South America east coast trade. No designs have as yet, however, been completed, it was stated. Long of hull, wide of beam and speedy, the vessels would cost about \$17,500,000 apiece.

*Science News Letter, February 12, 1938*

## PARASITOLOGY

### Sulphur Doses Rid Fowls Of External Parasites

**S**ULPHUR, standby spring tonic of the old-time medicine chest, is good for what ails chickens on the outside, it appears from results of experiments conducted by Dr. M. W. Emmel of the Florida Experiment Station.

Dr. Emmel has found that by adding five per cent. of sulphur flour to the chickens' laying mash he can rid the birds of external parasites such as lice and stick-tight fleas.

Sunshine proved to be a strong auxiliary for the sulphur in the experiments. Fowls kept on the sulphur regimen indoors were relieved of only 25 per cent. of their parasites. When sulphur-fed fowls were given liberty to run outdoors, however, they were totally cleared of their infestation.

*Science News Letter, February 12, 1938*