

## GENERAL SCIENCE

**Finns To Translate, Index Important Science Papers**

**S**CIENTIFIC news from beleaguered Finland: The Finnish government has decided that all scientific papers and reports of research published in Finland will be assembled, indexed and examined by an official committee of experts, which will see to it that the principal papers are translated into English, French and German, thus making less difficult the distribution of detailed information concerning research done in Finnish institutions.

Russian bombs are taking their toll among scientists: Dr. J. U. Ant-Vuorinen, lecturer in analytic chemistry at the Technical College of Helsinki, was killed in one of the early air raids.

*Science News Letter, February 17, 1940*

## PUBLIC HEALTH

**New Low Death Rates For Eleven Diseases**

**N**EW LOW death rates for 1939 were registered for 11 diseases. For only three were there new high mortalities.

Taking the bad news first: The cancer death rate rose for the third successive year, reaching 101 per 100,000, the first time it has exceeded 100—an increase in the crude cancer death rate of 30% in a decade.

Coronary artery diseases rose sharply to 40.2 per 100,000, almost nine times that recorded at the beginning of the decade just closed.

The diabetes death rate jumped from 24.8 in 1938 to 27.5 per 100,000 in 1939.

Now for the good news: Never before has there been even a close approach to the figures for 1939 for the principal communicable diseases of childhood—measles, scarlet fever, whooping cough and diphtheria. The death rate for this group was only 4.2 per 100,000, a drop of 34% in a single year and 79% in 10 years.

Tuberculosis caused less than 45 deaths per 100,000, little more than half what it was 10 years ago. Pneumonia mortality dropped 15% in a single year, to 42.9 per 100,000, 52% in 10 years. The mortality rate for infantile diarrhea declined to 3.7 per 100,000, a new minimum and less than one-fourth of the figure registered a decade ago. Diseases of pregnancy and childbirth hit a new low of 5.4 per 100,000, down 60% in 10 years.

There were fewer fatal accidents than ever before, 46.3 per 100,000, 4.3% be-

low 1938 and 29% below 10 years ago. Death rate from alcoholism plunged 20% in a single year, the figure of 1.2 per 100,000 being about a third of that registered a decade previously. The suicide rate was 8.6 per 100,000 in 1939, the lowest since 1929. Homicide rate was 4.4 identical with minimum achieved in 1938. These figures are from Metropolitan Life Insurance Company statisticians based on their policyholders.

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## ARCHAEOLOGY

**Unearth Remains of Palace And Gardens of Cleopatra**

**A**RCHITECTURAL wreckage—what is left of Julius Caesar's gardens and the palace where he established fastidious Queen Cleopatra during her three-year stay in Rome—has been coming to light during excavations in Rome.

Little has been known in modern times of the famed gardens of Caesar, from which doubtless Cleopatra gathered some of the roses which she used in profusion, for their sweetness. Her banqueting floors, it was said, were sometimes strewn knee-deep in petals.

The gardens, which Caesar willed to the Romans for a park at his death, are now believed to be definitely located by the finding of walls, frescoes, and works of art.

*Science News Letter, February 17, 1940*

## METEOROLOGY

**Byrd's Snow-Cruiser Crew Complains of Snow Lack**

**A**DMIRAL BYRD'S snow-cruiser crew are dissatisfied with the weather in Antarctica. There isn't enough snow. The ten-foot, three-ton rubber-tired wheels of the enormous vehicle can't find proper traction, and the snow cruiser will have to be kept close to base camp until autumn sets in, about the end of this month.

Since Antarctica is at the "far end" of the Southern Hemisphere, it is only a little past midsummer there now, and the snow cover is at its minimum. Winter, when snow cruising may also be a little difficult, sets in about mid-April and lasts until late July. Members of the expedition will while away the tedium of the long winter evening (several weeks it lasts) by taking seismic soundings and observations on the weather, cosmic rays, and geological formations.

*Science News Letter, February 17, 1940*

**IN SCIEN**

## ENGINEERING

**Standardization Will Aid The Painter in Oils**

**S**CIENCE, art and industry are about to do something about the oil paints the artist uses. The painter in the future will be able to use colors scientifically certified so that his creation on canvas will not be lost to posterity due to impermanent materials.

Collaboration upon a standard for artist's oil paints is under the auspices of the National Bureau of Standards and based upon three years of study by the Massachusetts Art Project. The standard is expected to guide artists in purchase of paints of satisfactory color, working quality, and durability, to eliminate confusion in nomenclature, and to promote fair competition among manufacturers by providing ways of telling satisfactory paints from those of unknown or inferior quality.

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## PHYSIOLOGY

**Course of Vitamin in Body Traced With Radioactivity**

**D**ETERMINED to discover what happens to vitamin B<sub>1</sub> or thiamin in the human system, California Institute of Technology scientists are tracing the course of the vital vitamin through the body. It is rendered "visible" by radioactivity.

Synthetic thiamin is made with sulfur made radioactive by the huge University of California cyclotron at Berkeley.

Its artificial radioactivity is clocked by one of the most elaborate arrangements of Geiger counters ever devised.

These counters, similar to those employed in cosmic ray research, check the radiation from the vitamin as it becomes a part of the human body.

John B. Hatcher, bio-chemist, who has conducted the experiment, is his own "guinea pig." He takes doses of radioactive vitamin himself, then uses the Geiger counter apparatus to determine the amount destroyed, utilized and wasted.

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# CE FIELDS

## BOTANY

## Noted Botanical Editor Moves to United States

**N**EWEST arrival among scientific world figures to transfer his activities to the United States is Dr. Frans Verdoorn, editor and general manager of *Chronica Botanica* and other plant science publications, and secretary of the International Union of Biological Sciences.

Formerly located at Leyden, The Netherlands, Dr. Verdoorn has just arrived in this country, and will shortly be established at the Arnold Arboretum of Harvard University, located at Jamaica Plain, near Boston. He has brought with him his scientific collections and his library, and expects to become permanently established in the United States.

Dr. Verdoorn was engaged in the preparation of an international address book of plant taxonomists when the war broke out, and despite the disturbing effects of the hostilities practically surrounding his country he was able to complete preparation of the manuscript. The book will be published in the near future.

*Science News Letter, February 17, 1940*

## ZOOLOGY

## New Expedition Leaving For Liberia For Animals

**A**NEW Smithsonian-Firestone expedition to the tropical jungles of Liberia, to get new animals and birds for the National Zoological Park, is leaving the United States, just as an assorted cargo of Antarctic fauna is getting under way from the South Polar regions.

Leader of the expedition is Dr. William M. Mann, director of the Zoo, who is accompanied by Mrs. Mann, his collaborator on previous expeditions into the tropics. They sailed from New York on Feb. 14.

Sponsor is Harvey S. Firestone, Jr., whose father, the late Harvey S. Firestone, first manifested an interest in the National Zoological Park many years ago, when he presented Dr. Mann with

a rare pygmy hippopotamus, still prize exhibit in the pachyderm house.

Liberia offers particularly good hunting in "small model" mammals. Besides the pygmy hippopotamuses of which Dr. Mann hopes to obtain more specimens, there are pygmy elephants and the little chevrotain or water deer—the latter a tiny hoofed creature that stands only a foot high at the shoulder.

Besides these, the expedition will seek zebra antelopes, red bush cows, West African forest leopards, and two species of serval, which are large, long-legged, big-eared cats. Birds hoped for include black and white crows, hornbills, sunbirds, and interesting tropical species of storks and cranes.

*Science News Letter, February 17, 1940*

## CHEMISTRY

## Germans Have No Hope For Deadlier War Gas

**G**ERMAN chemists are of the opinion that there is little prospect of finding new war gases more deadly than those already known, reassuring information relayed by the American Chemical Society's *Industrial and Engineering Chemistry*, which checks with ideas prevalent in U.S.A. chemical circles.

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## BOTANY

## New Name Proposed For California's Big Tree

**C**ALIFORNIA'S famous Big Tree species, long known botanically as *Sequoia gigantea*, is proposed for renaming by Prof. J. T. Buchholz of the University of Illinois, who has made a close study of this largest of trees and of its relative the coast redwood, *Sequoia sempervirens*.

The two trees are so different, Prof. Buchholz points out, that they should not be included in the same genus of plants. Accordingly he proposes a new name for the Big Tree: *Sequoiadendron giganteum*. The "dendron" addition to the old name is the Greek word for "tree."

The name *Sequoia* was first proposed for the coast redwood, in honor of the remarkable half-breed Cherokee leader, Sequoyah, who did much for the benefit of his fellow Indians in the early nineteenth century. An effort was made in 1853 to rename the Big Tree *Wellingtonia*, in honor of the great English general, but for technical reasons that name failed to stick.

*Science News Letter, February 17, 1940*

## CHEMISTRY

## Metallic Sodium Loaded As Liquid, Shipped Solid

**N**OT many years ago the metal sodium, which in combination with chlorine is most familiar to us as common salt, was almost a laboratory curiosity in its metallic state because when exposed to the air it bursts into flame. Those who attended chemistry classes not many years ago and saw this metal handled like so much high explosive will be startled by information that now metallic sodium—by the ton—is transported in tank cars and sold at about the same price as copper.

Du Pont has a fleet of cars, each holding 40 tons of sodium which is loaded and unloaded as a liquid but shipped as a solid. Sodium by the ton is converted daily into high purity sodium cyanide for use in electroplating and heat treatment of metals. Other uses of metallic sodium: To make sodium peroxide for use as a textile bleach and as raw material for medicinal compounds containing active hydrogen such as zinc peroxide and sodium perborate, in indigo dyes, in preparation of lead tetraethyl used to produce anti-knock gasoline and for use in preparing such new wonder drugs as sulfapyridine for pneumonia.

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## MEDICINE

## Now Castor Oil Bottles Will Wear a Warning Label

**U**PON the labels of the medicines that you can buy at the Nation's drug-stores there will soon be not only the names of the drugs but useful warnings when those drugs are likely to be used harmfully, for self-medication, family remedies. Since the first of the year this new kind of labeling has been required by federal law administered by the Food and Drug Administration, but the federals making drugs safer are not likely to get tough about the labeling provisions until after the middle of the year.

Take the old familiar remedy, castor oil, which will be found wearing the following warning:

"Not to be used when abdominal pain (stomach-ache, cramps, colic) nausea, vomiting (stomach sickness) or other symptoms of appendicitis are present. Frequent or continued use of this preparation may result in dependence on laxatives. Do not use during pregnancy except on competent advice."

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