

PUBLIC HEALTH

Five Diseases Are Targets In Fight for Nation's Health

Cancer, Syphilis, Infantile Paralysis, Malaria and Yellow Fever Retreating Before Organized Attacks

FIVE major campaigns against disease are engaging the nation's disease fighters with renewed vigor, following the annual American Public Health Association meeting in New York.

With new financial support from the federal government and from private sources, and with fresh impetus, these men and women who protect our health are fighting as never before against such major foes as syphilis, malaria, cancer and infantile paralysis. At the same time, the lines have been strengthened against yellow fever and other diseases that may be imported from abroad.

Under the leadership of Surgeon General Thomas Parran, of the U. S. Public Health Service, also president of the American Health Association, the entire nation has taken up arms in the fight against syphilis. As a result, physicians and health officers are able to apply their knowledge of how to treat this disease and to stop its spread. In Chicago, where a poll was taken, an overwhelming number of citizens expressed their willingness to take the test which shows whether or not a person has the disease. In many communities, as soon as the health authorities started the anti-syphilis campaign, patients began coming to physicians for treatment, instead of hiding their illness and trying to cure it in secret with inefficient remedies. Health authorities apparently are well on the way to the conquest of this disease.

National Cancer Institute

Cancer, most dreaded of all diseases, can now be fought more relentlessly and on a larger scale than ever before. A National Cancer Institute to fight the disease was founded by an act of Congress and over \$1,000,000 was provided to build and equip the Institute and provide for its first-year expenses, with more funds to be provided annually. Gathering and disseminating of present knowledge about the disease, purchase of radium to be loaned to institutions for cancer treatment and research into causes and methods of fighting this dread killer are the functions planned

for the institute. Money alone will not conquer cancer, but it can help cut down cancer deaths by making treatment more widely available, by giving scientists a chance to discover better methods of treating and controlling it, and by teaching laymen and physicians all over the country how to do their share in fighting the disease.

Protective Spray

A better spray for protection against infantile paralysis got its first trials during the past summer. While it is too soon to know how much help this may give in controlling the disease, much hope is held for it. Even if this does not prove to be a sure means of preventing infantile paralysis, other methods of protecting children from the crippling ailment may be developed in the course of the research under the new National Foundation for Infantile Paralysis. (See page 234)

Malaria reached a peak of 4,000,000 cases during the past summer, one national health authority estimated. It is probable that this old disease foe will never again reach such a high point because during this same summer a unified malaria control program for all the southern states in the malaria area has been started. Grammar school children of the South will be the intelligence

branch of the army in the renewed fight against this disease. A drop of blood from each of these children will lead health authorities to the strongholds of the malaria-carrying mosquitoes, wherever they may be hiding. Once their breeding places are located exactly, effective steps can be taken to route them and thus to free the entire South of the disease.

Side by side with these campaigns against disease within our borders have been instituted two new measures to keep foreign diseases out of the country. One of these is the new radio pratique by which incoming vessels are allowed to proceed to port if they have notified U. S. Quarantine authorities by wireless that no cases of disease are aboard ship. The other is the agreement entered into by the Pan American Sanitary Bureau and the Pan American Airways System for keeping yellow fever out of this country. The discovery of new yellow fever centers in South America at almost the same time that air travel brought that continent so much closer than ever before to the United States brought the menace of yellow fever uncomfortably and even dangerously close. The new measures include fumigation and vaccination.

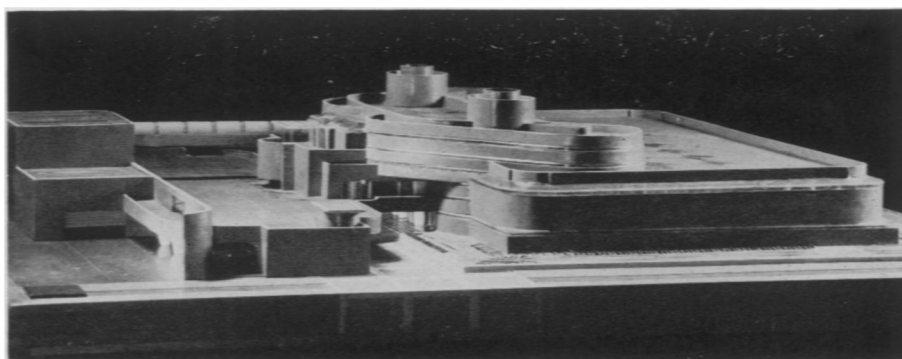
Science News Letter, October 9, 1937

ENGINEERING

Windowless Building Built By "Organic" Architecture

SCIENCE, beauty, and maximum efficiency combine to make the long talked of futuristic industrial architecture a reality in the internationally famous architect Frank Lloyd Wright's latest creation.

In a new building (*Turn to Page 239*)



SCIENCE AND BEAUTY

Glass predominates in this latest Frank Lloyd Wright creation, a wax factory at Racine, Wis. Full daylight and air-conditioning feature the building, which is without windows. Novel "upside-down" columns effect important savings in floor space.

● RADIO ●

October 12, 5:30 p. m., E.S.T.

INDIANS WHO MET COLUMBUS—Herbert W. Krieger of the Smithsonian Institution.

October 19, 5:30 p. m., E.S.T.

COUNTING BIRD NOSES—William Vogt, Editor of "Bird Lore".

In the Science Service series of radio discussions led by Watson Davis, Director, over the Columbia Broadcasting System.

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for a wax making concern at Racine, Wisconsin, Mr. Wright started from the bottom and fashioned an absolutely new unit.

The basis of Mr. Wright's new building is his upside-down "flower" column, as he terms it. The column is nine inches in diameter at its base, and widens gradually through its "stem." At the top of the "stem," there is a hollow cup, termed botanically the "calyx," which supports a large concrete dish, 18½ feet in diameter, called the "petal." The column is 21 feet 7½ inches high, which, with its base of nine inches, and according to present theories, should only be 6 feet 9 inches.

Far from being weak, however, the column supported a test load of 60 tons, and then it toppled only from an unbalanced load. Mr. Wright credits the great strength of the column to a steel mesh core, which he adapted to reinforce it, where in other structures steel rods are used. He explained that rods represent "bones of a human foot," where mesh represented "muscles and sinews," which are much stronger than bones.

In explaining the functional value of the column, Mr. Wright pointed out that: "By tapering the columns to nine inches at the floor we increase the building's floor space, we use a fraction of the concrete and steel that would ordinarily be used, we cut the cost and at the same time cut the dead weight." An estimated one third of the space will be conserved with the use of the column.

On the main floor of the building, there are 54 columns spaced 20 feet apart on center. The greatest weight that any of them will carry will be 12 tons, and the average weight will be two tons. This floor is one big room. On the theory that the quickest way to lose space is to have partitions, Mr. Wright has installed all the office workers at individual desks in the center of the

room, and the department officials around the sides in glassed-in cubby holes. All activity may be seen by one person.

The diamond shaped roof areas between the "petals" of the columns are filled in with glass. These skylights will admit light and reduce the expense of artificial lighting throughout the main part of the building which is but one story high. Decorative strips running full length along the sides of the building and around the edge of the roof are also of glass, and serve to admit light.

Mr. Wright's building technique is based entirely on what he terms "organic" architecture. It is the "marriage" of building materials. The concrete flows into the crevices of the bricks of the walls and fuses them into a solid wall. His plea is for more creative workmanship and less "machine age" standardized architecture.

The building is designed on the principle of air conditioning, and for this reason, there are no windows to be opened. It will be heated by steam pipes installed in the floor.

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● First Glances at New Books

Medicine

ADAPTATION IN PATHOLOGICAL PROCESSES—William H. Welch—*Johns Hopkins*, 58 p., \$1.50. One of the series of *Bibliotheca Medica Americana* of the Institute of the History of Medicine of the Johns Hopkins University. Older physicians will be glad to reread this presidential oration by one of America's great medical leaders and present-day medical students will find this 40-year-old essay as stimulating and enlightening as any medical lecture they listen to today.

Science News Letter, October 9, 1937

Archaeology

INDIAN SITES BELOW THE FALLS OF THE RAPPAHANNOCK, VIRGINIA—David I. Bushnell, Jr.—*Smithsonian*, 65 p., illus., 75 c. See page 237.

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Ornithology

THE NATURAL HISTORY OF MAGPIES—Jean M. Linsdale—*Cooper Ornithological Club*, 234 p., illus., \$3.50 paper, \$4.25 cloth (plus 3% sales tax if delivered in Calif.). An exhaustive, thoroughly documented, well illustrated monograph on the distribution, habits, etc. of one of the most interesting of bird genera.

Science News Letter, October 9, 1937

Dendrology

TEXTBOOK OF DENDROLOGY—William M. Harlow and Ellwood S. Harrar—*McGraw-Hill*, 527 p., illus., \$4.50. Useful alike to forester and general field botanist is this new textbook. In concise, businesslike yet scholarly fashion it describes the principal forest trees of northern America and tells what they are good for. The photographic figures illustrating critical identification characters are of exceptional merit.

Science News Letter, October 9, 1937

Science

THE ADVANCEMENT OF SCIENCE: 1937—*British Association for the Advancement of Science, London*, 264 p., 3 shillings and sixpence. The annual volume containing the important leading addresses before the B. A. A. S. meeting at Nottingham.

Science News Letter, October 9, 1937

Geography

THE FRAME OF THE ANCIENT GREEK MAPS—William Arthur Heidel—*American Geographical Soc.*, 141 p., \$2.50. See page 232.

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Zoology

THE BIRDS AND MAMMALS OF THE WESTERN SLOPE OF THE AZUERO PENINSULA (REPUBLIC OF PANAMA)—John Warren Aldrich and Benjamin Patterson Bole, Jr.—*Cleveland Museum of Natural History*, 196 p., \$1.75. A monograph covering very thoroughly a limited area inhabited by a characteristic neotropical fauna.

Science News Letter, October 9, 1937

A dog can hear higher-pitched sounds than you can.

THERE IS FUN
IN GEOMETRY

● By Louis Kasper

Three motives combine to bring value to this book. MECHANICS are shown how to solve the problems which they encounter in their trade; STUDENTS are provided with interesting and practical examples to live on; and a new "dead" course: People who find a new mathematical PUZZLES will here find a fully equipped storehouse. Solutions are fully worked out and easily understood with able drawings. (Money-back guarantee).

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