

## MEDICINE

**Polio Fighters Are Being Mobilized for Outbreak**

➤ POLIO fighters all over the country are being mobilized now in preparation for the usual summer outbreak of this crippling childhood disease.

In a series of 300 "grass roots" conferences, public health and hospital officials and other professional personnel from each community will be brought up to date on latest methods for fighting the disease. From two to a dozen conferences will be held in each state. The conferences are sponsored by the National Foundation for Infantile Paralysis.

It is too early to say yet whether there will be a big epidemic of the disease this summer. And there is no specific cure for it, nor any way of preventing polio epidemics, Basil O'Connor, president of the National Foundation for Infantile Paralysis, pointed out. But, he said, "we have learned that early diagnosis and prompt modern hospitalization can do much to halt the ravages of this crippling disease."

The preparedness meetings are being planned so that hospital beds, special equipment and trained personnel will be available for emergencies and so that health and medical authorities will know where to get nurses and physical therapists and about the National Foundation's epidemic aid teams and emergency equipment pools.

For the first time, Mr. O'Connor said, pools of equipment such as respirators (iron lungs) and hot pack machines will be strategically located at San Antonio, Tex.; Atlanta, Ga.; Boston; Columbus, Ohio; and Denver.

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## FORESTRY

**Baldness Attacks Young Evergreens in Lake States**

➤ BALDNESS is afflicting small evergreens in northern states. Fortunately, however, it is unlike human baldness in that it is only temporary, and is due to a spell of unfavorable weather last year, rather than to anything inborn. The condition has been investigated by Dr. Henry Hansen of the University of Minnesota forestry department.

Last October there was severe drought in the region, followed by a sudden snow and sleet storm early in November. This, states Dr. Hansen, prevented the trees

from hardening their tissues as they ordinarily do in autumn. The sudden drop in temperature caught their needles unprepared.

In most cases, he explains, damage is confined largely to the needles grown in 1947, which have browned and dropped off. Now that new needles are growing, the trees' appearance has improved somewhat, although the gaps on the twigs behind the new growth will keep them looking a bit ragged for another year or two.

"Nothing can be done to remedy the condition, other than let nature take its course," Dr. Hansen states. "Spraying will not help and pruning is not recommended."

Damage is confined largely to non-native trees such as Scotch pine, Norway spruce and Oriental arbor-vitae. Trees belonging to the West, including Douglas fir, Colorado blue spruce, concolor fir and ponderosa pine, have also suffered. Trees native to the northern Great Lakes region, such as jack pine, Norway pine, white pine and white spruce, had least damage.

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## GENERAL SCIENCE

**Patent Applications Filed By U. S. Government Abroad**

➤ OUTSTANDING American wartime developments in radar and electronics are included in a new list of patent applications now filed in foreign countries to protect American interests. They are filed under the foreign patent protection program operated by the Office of Technical Services, U. S. Department of Commerce.

The new list, the fourth to be issued, contains 70 cases filed in Great Britain by the Federal government on its own behalf, and are now being opened for "follow-up" by private firms. Sixty-one of these have never been brought to public attention before. They range from landing aids for planes to developments in ultra-high-frequency circuits and antennas.

Licenses under any foreign patents received for these federal-owned inventions would be available to American nationals on a royalty-free, non-exclusive basis. Complete information, including an opportunity to examine the specifications of all foreign patent applications, are available in the Commerce Department building, Washington.

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**IN SCIENCE**

## CHEMISTRY

**Radioactive Bromine Used In New Local Anesthetic**

➤ RADIOACTIVE bromine is used in preparing a new local anesthetic, dibromo procaine, Dr. Frank Howarth of the Victoria University of Manchester announces in the British journal, *Nature* (May 29). The radioactive bromine was of British origin, made on the cyclotrons of Liverpool and Cambridge Universities.

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## ARCHAEOLOGY

**Age Discoveries Made by U. S. Expedition**

➤ THE recovery of two stone age skeletons and tools from the west side of Lake Rudolf in Turkana Province is reported by the University of California African Expedition party in Kenya.

The skeletons were excavated under the direction of Prof. P. E. P. Deraniyagala, director of the National Museums of Ceylon and a member of the expedition. He said no skeletons previously have been found in this area, and added that the findings may be helpful in determining the nature of the early cultures here.

The first skeleton was found in a stone mound, 300 feet above the present level of the lake, which had a sandy core under the surface of the stones. The skeleton was found in the sandy core. While no tools were found with the skeleton, because the surface of the ground at the time of burial was a foot higher than it is at present there is little doubt of its antiquity.

Prof. Deraniyagala said stone implements are scattered abundantly around the area of the burials, and these may belong to a culture equivalent to the Neolithic of North Africa and Europe.

Stone flakes, which may have been contained in a skin bag long since rotted away, were found close to the second skeleton. This skeleton, found in a different locality, may be older than the first, judging from the stone tools, which may correspond to the mesolithic of Europe.

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# E FIELDS

## GENETICS

### "Bleeder's Disease" Can Occur in Puppies

➤ HEREDITARY bleeding, or hemophilia, can occur in dogs as well as in human beings. When it does occur it is sex-linked, that is, it is found only in males, as is also the case with human hemophilia. And, as in human beings, the luckless male offspring inherit the disease not from the father but from the mother.

The unhappy lives and early deaths of 17 hemophilic puppies have been studied by three Cornell University scientists, Drs. F. B. Hutt, C. G. Rickard and R. A. Field. They all belonged to the same owner and had the same ancestry. None lived to be more than seven months old.

Fatal or crippling bleeding could be started by the slightest accidents: tumbling about in play, or being gently picked up by the owner. Such bruise-bleeding was usually internal, producing masses of blocked-up blood which in turn often caused disabling paralysis. One puppy, in cutting a tooth, started such a hemorrhage from its gums that it had to be killed.

A search of the records has disclosed only two previous cases of canine hemophilia; in those the puppies also died young. The only other species known to produce bleeder offspring, aside from man, has been the pig.

A detailed account by the Cornell scientists appears in the *Journal of Heredity* (Jan.).

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## GENERAL SCIENCE

### Aid Program Could Also Restore World Science

➤ ONLY one percent of the total investment suggested for this country's contribution to world economic recovery would restore science in foreign countries to prewar levels, a report of a committee of the National Research Council has estimated.

With approximately \$80,000,000 needed to replace war-lost scientific apparatus alone, the total needed to restore science abroad to its former level

was calculated at between 150 and 200 million dollars. The report was made by Dr. W. A. Wildhack, physicist at the National Bureau of Standards and chairman of the Research Council's Committee on Scientific Equipment.

"It is to be hoped that the officials charged with the formulation and administration of our program of foreign aid will see that an appropriate portion of funds and materials are made available specifically for this purpose," the report declared.

Pointing out that science is "uniquely international," the report said that "no other phase of reconstruction will more effectively lay the groundwork for a wider cooperation and understanding among peoples and nations."

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## INVENTION

### Patent Issued on Fender Straightener

➤ A MACHINE for straightening dented fenders without detaching them from the car has been patented by John M. Johnson and Bernard P. Leaf of Lindsborg, Kans. It is based on a strong I-beam that can be securely anchored to the frame of the car with a chain. At one end of the beam is a lever with a curved dent-removing tool at its free end. Force is applied to this lever by means of a hydraulic cylinder and piston, until the fender has been restored to its original shape.

U. S. patent 2,442,604 has been issued on this device.

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## INVENTION

### Radioactive Materials Incorporated in Glass

➤ FOR convenience of handling radium and other radioactive materials in research and industrial applications, Solomon Rosenblum of Princeton, N. J., incorporates it in glass. The radioactive material is laid on the surface of a glass plate, sandwiched between two metallic plates. An electric current simultaneously heats the glass (which increases its conductivity) and incorporates the material into its substance. After cooling, the glass is ready for use as a source of radiations and as an air ionizer.

Patent 2,442,617, granted on this invention, has been assigned to the Canadian Radium and Uranium Corporation.

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## ELECTRONICS-ENGINEERING

### Magnetization Measured From Small Metal Sample

➤ THE magnetic performance of a metal after becoming a part of finished electrical equipment can be determined accurately beforehand from a small sample of the material by means of a new device revealed by the General Electric Company.

Sensitive enough to record minute quality variations between samples of the same metal, the device tests thin-gage, magnetic metals for energy losses when subjected to magnetization, and also measures the ease with which the metal may be magnetized. It enables engineers to predict very closely the properties of magnetic materials in motors, generators, transformers and other equipment.

This electrical instrument, with dial-operated measuring devices, will be known technically as the "A-C Permeability and Core Loss Equipment." It can be operated by a relatively untrained person. A number, built in Schenectady, N. Y., are now in use in the steel and electrical industries.

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## BIOCHEMISTRY

### Blood Proteins To Be Kept In New, Special Museum

➤ RESEARCHERS on the proteins of the blood and other body tissues will presently be able to conduct studies in the comparative chemistry of these compounds from many different kinds of animals, at a new, special serological museum now being assembled at Rutgers University. It is an outgrowth of studies in systematic serology which have been conducted in the department of zoology during the past 23 years by Prof. Alan Boyden and his students.

The museum already has blood protein samples, from hundreds of species of animals, contributed by many other institutions. It is expected that more will be received in the near future.

The Rutgers museum is unique among places where zoology is studied. Typically, museums keep only the "innermost insides and the outermost outsides" of animals—that is, their skeletons and their skins, which are relatively easy to prepare and preserve. Here, at least the chemical compounds that keep their life-processes going will be preserved for comparative research.

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