



#### FISH FOR FUN AND FOOD

*The eastern pickerel, one of the several fish pictured in the new series of wildlife stamps, needs no introduction to fishermen. There's plenty of fun in fighting him to the catch, plenty of good eating in him after he's landed. (See page 221.)*

CHEMISTRY—BOTANY

## Baby Gives His Pants For Country's War Effort

### They Are Being Wrapped Around the Army's Telephone Lines; 100,000 Miles of the New Wire Already Ordered

**S**O YOU'D give your shirt to help the U. S. A. to win the war? Of course you would.

Well, Baby's beaten you to it. He's already given his pants. They're wrapped around the Army's telephone lines.

How rubber latex that used to be used in making necessary articles of infants' wear now goes into insulation for light-weight communication lines was related before the Eighth Annual Chemurgic Conference in Chicago by Dr. M. C. Teague, research chemist of the United States Rubber Company. Dr. Teague told his audience of the scientific juggling which he and his colleagues have been carrying on since the emergency began, to make the country's limited supply of rubber stretch farther.

The latex-insulated telephone wire, samples of which he showed, is produced

by a multiple dip process using a special latex compound. It weighs only 30 pounds per mile, as compared with 168 pounds per mile of the older-type wire. The government has already ordered more than 100,000 miles of the new wire, enough to go four times around the earth.

The list of latex articles used in war is a long one. It includes bullet-proof fuel tanks for airplanes, life rafts, pilot balloons, gas masks, aviators' helmets, blackout paint, sponge cushioning for use in tanks, submarines, gunsight eye-pieces, and a thousand other things.

All of this has meant, of course, that civilians have had to get along without some of the things that have meant much to the amenities of modern life, especially the two-way-stretch fabrics that have come to be standard parts of bathing-suits, foundation garments, shoe

tops, suspenders, and "elastic" generally.

Again the rubber industry has come to the rescue. Dr. Teague told about a new "synthetic" latex made from reclaimed rubber, and exhibited samples of articles made therefrom. Of particular interest, to both military men and civilians, were elastic straps for gas masks, in which neither latex nor raw rubber had any part.

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## Milkweed for Kapok

**K**APOK, tropical floss used in life-preservers, pillows and heat-insulating coverings, can have its war losses at least partly made good by the substitution of milkweed down, Dr. Boris Berkman of Chicago told the conference.

Kapok and milkweed floss are very closely similar, despite their diversity of origin, the speaker declared. Kapok is borne in seedpods of tropical trees, milkweed in similar pods on tall temperate-zone herbs. But to the naked eye, and even under the microscope, they are astonishingly alike. The fibers of each are of approximately the same size, and both are hollow, with great flotation power provided by the inner air space.

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## Arsenals of Democracy

**F**OUR million-dollar laboratories of the U. S. Department of Agriculture, originally planned as means for increasing the peace-time prosperity of American farmers and industrial users of farm products, have under the stress of war become four great arsenals of democracy, Dr. Henry G. Knight, chief of the Bureau of Agricultural Chemistry and Engineering, declared.

When the first of the four laboratories of Peoria was being dedicated only two years ago, Vice President Henry A. Wallace, then Secretary of Agriculture, remarked, "It is a comforting thought to know that this great research laboratory, and the other three that are under construction, could be turned into research institutions for national defense should the occasion demand."

No one who heard that prophecy wanted it to be fulfilled, but, said Dr. Knight, "We didn't get our wish . . . Instead of being on a peaceful footing we are now fighting for what may be our very existence . . . I'm glad to be able to say to you on this occasion that these laboratories are living up to Vice

President Wallace's prediction. They, along with other research organizations and institutions, are contributing their bit to the defense of the country."

*Science News Letter, April 4, 1942*

## Soybean Crops Needed

**C**HINA'S great contribution to America's victory farming, the soybean, will receive greater attention than ever during the coming crop season, G. G. McIlroy, director of the American Soybean Association, announced.

Nine million acres, 54% more than last year, are expected to be planted to this versatile crop, which can contribute feed for the production of meat and milk, oil for explosives, paint, soap and human food, or can be plowed under to give the soil the nitrogen which diversion of nitrates into munitions is taking out of commercial fertilizers.

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## Insecticide Shortage

**M**UNITIONS for man's ceaseless defensive warfare against insects and plant diseases have been forced onto a scarcity basis because of the war, James R. Hile of the Acme White Lead and Color Works, Detroit, revealed. Part of the shortage is due to the more imperative demands of war industries for materials used in the making of fungicides and insecticides, part to the cutting off of overseas sources by Axis conquests.

Arsenic, classic standby of insect fighters, is hit both ways, Mr. Hile explained. About half of the arsenic used in this country comes in normal times from abroad, mainly from Sweden, Belgium and Japan. These sources are lost for the present. At the same time, other industries are demanding larger shares of the arsenic still available. Great quantities are needed in the manufacture of khaki cloth, blankets, etc. Arsenic is demanded in increased quantities for glass-making. It is also needed for the production of chemical weed killers, to replace chlorates now absorbed by the powder-mills.

Rotenone, one of the most important of the organic insecticides, used to come largely from the East Indies, which are now out of the market. South American rotenone, which used to supply about 40% of the nation's normal requirements, can be stepped up to perhaps 60%, but not more. This leaves a bad lack, with no replacements in sight.

A similar situation holds with respect

to the other great plant source of insecticide, pyrethrum. The principal source of this used to be Japan, but the British African colony of Kenya has almost entirely displaced our present Axis enemy so far as pyrethrum is concerned. The entire requirement for 1942 can be supplied from Kenya, if enough shipping space can be made available.

So far as arsenic and rotenone are

concerned, the situation is being saved largely through careful distribution of available supplies. Non-essentials, like grub-proofing of lawns and golf greens and protection of ornamentals, are being put on short rations, and the supplies on hand are being directed to the combating of pests and diseases attacking principal food and fiber crops.

*Science News Letter, April 4, 1942*

GENERAL SCIENCE

# Unified Science Must Serve Unified World After War

## Annual Report of Rockefeller Foundation Points Out Nationalistic Partitions in Science Must Disappear

**N**ATIONALISTIC partitions within the world of science must disappear in the world which scientists are to aid in reconstructing after the war, declares President Raymond B. Fosdick of the Rockefeller Foundation, in his annual report.

This is, of course, not a brand-new idea, Dr. Fosdick points out. Scientists have been feeling their way in that direction for at least 300 years—ever since physical science has been recognizable as a distinct field of human thought. But the post-war years must see an acceleration of the process.

"In brief, the age of distinct human societies, indifferent to the fate of one another, has passed forever; and the great task that will confront us after the war is to develop for the community of nations new areas and techniques of cooperative action which will fit the facts of our twentieth century interdependence. We need rallying points of unity, centers around which men of differing cultures and faiths can combine, defined fields of need or goals of effort in which by pooling its brains and resources the human race can add to its own well-being. Only as we begin to build, brick by brick, in these areas of common interest where cooperation is possible and the results are of benefit to all, can we erect the ultimate structure of a united society."

In the meantime, the Foundation faces the problems and perils of the immediate present. Outstanding in its contributions to the nation's total war effort are the measures taken for the protection of American and Allied troops

against tropical diseases, especially the yellow fever that still lurks in Africa and the malaras that beset the defenders of civilization all the way from Trinidad to the Burma road.

Another activity of the Foundation has been the recording on microfilm of vast quantities of scientific data and historic records in bombarded Britain. These compact duplicates of civilization's basic documents can be easily transported out of harm's reach, or buried deep beyond any bomb's penetration. If the bulky originals are destroyed, the microfilm records will still enable scholars of the future to build again on the foundations of today and all past ages.

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ASTRONOMY

## Swift Stellar Object Still Unsolved Mystery

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**T**HE fast-moving object in the constellation of Leo, the lion, discovered by Dr. Y. Vaisaëlae of Turku, Finland, on March 12, has been confirmed and photographed by astronomers at the Lowell Observatory at Flagstaff, Arizona. However, it is not yet known whether the new object is a comet or an asteroid (*See SNL*, March 28).

A week after its discovery, the Lowell observations, made by H. L. Giclas, show that the object is moving about one minute of arc every 15 minutes, which is rather fast for an asteroid, especially since its apparent path is at