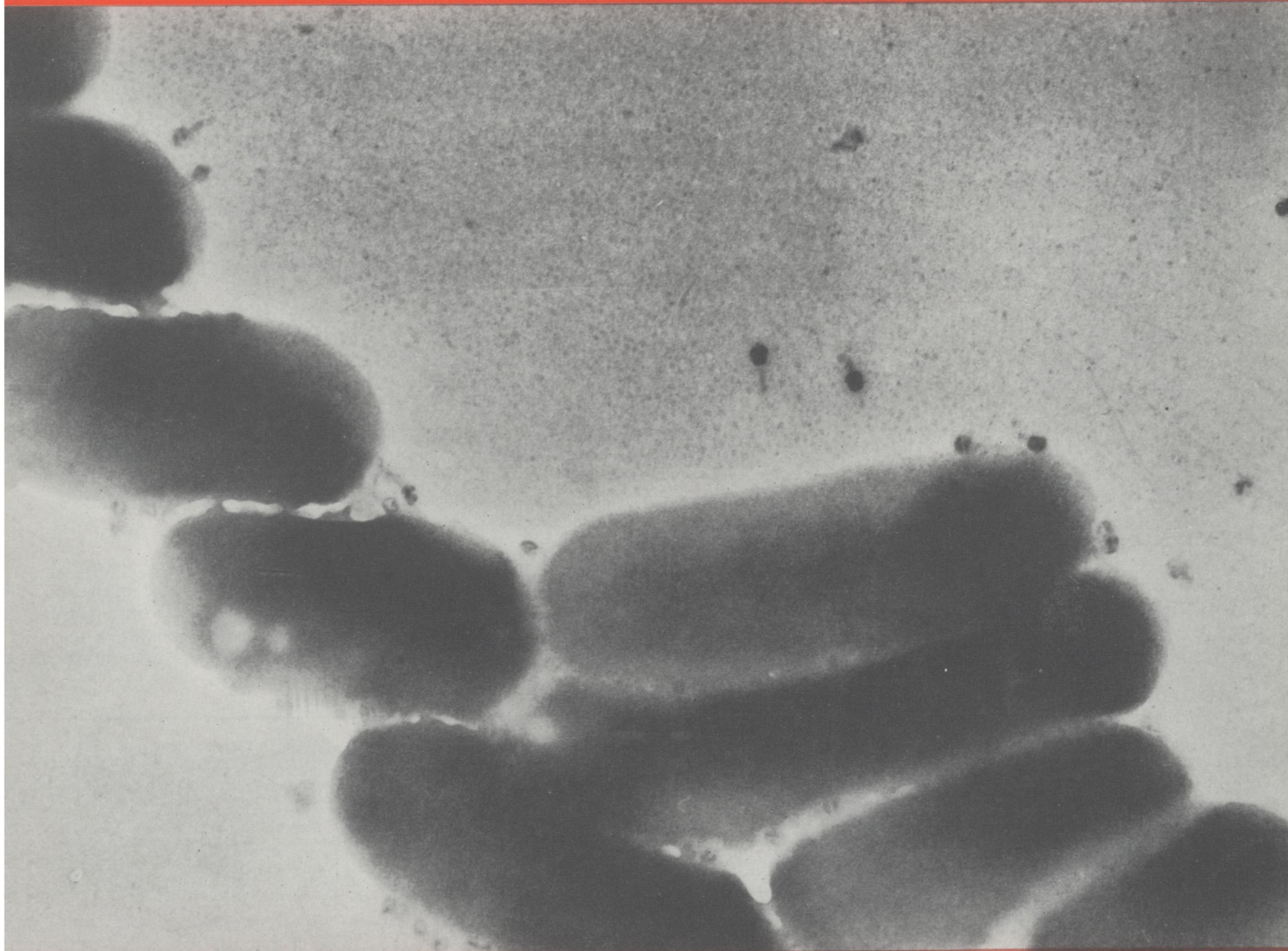


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SCIENCE REVIEW OF THE YEAR

SCIENCE NEWS LETTER

THE WEEKLY SUMMARY OF CURRENT SCIENCE • DECEMBER 19, 1942



Submicroscopic War

See Page 387

A SCIENCE SERVICE PUBLICATION

Do You Know?

In the *Fiji Islands* the men do most of the cooking.

Tobacco was first introduced into Portugal as a poultice for ulcers.

Bolivia is now the principal source of *tin* for the United States.

One-tenth of the *babies* in the United States are born with no physician in attendance.

Fifteen million *rubber seedlings* have been planted in tropical America in the last two years.

The Great Barrier Reef, guarding the northeast coast of Australia for 1,200 miles, is the largest *coral reef* in the world.

Heat travels in one direction only, from a warmer area to a colder one, a good principle to remember in insulating homes.

Ceylon and India are now the only countries not in Japanese hands from which we can expect any substantial imports of *tea*.

Three types of paint have been developed to prevent *ice formation* on war planes; one contains oil, one salt, and the other can be heated electrically.

Broadcasting *musical programs* in British war factories has been found very effective, provided there is not too much of it; three half-hour periods a day are said to be best.

Question Box

Page numbers of Questions discussed in this issue:

AERONAUTICS

What is the present status of the use of beryllium in airplane manufacture? p. 390.

ENGINEERING

Why is rain run-off an aviation problem? p. 393.

GENERAL SCIENCE

What scientific meetings have been called off? p. 393.

What sort of world is foreseen for 1964? p. 391.

GEOGRAPHY

How much space in high school history textbooks is devoted to Japan and China? p. 392.

INVENTION

How many alien-owned patents are available for American manufacture? p. 394.

Of what materials can gloves be made to give protection from war gases? p. 392.

PALEONTOLOGY

What sort of climate did New Mexico have thousands of years ago? p. 392.

PHYSIOLOGY

What vitamins are synthesized by germs in the intestines? p. 393.

PUBLIC HEALTH

What has happened to the U. S. death rate from pneumonia? p. 392.

RESOURCES

Which will wear longer, re-processed wool or low-grade new wool? p. 393.

Most articles which appear in SCIENCE NEWS LETTER are based on communications to Science Service, or on papers before meetings. Where published sources are used they are referred to in the article.

A group of electricians wiring barrack ceilings found walking on *stilts* much more efficient than climbing up and down ladders.

New natural products, now being considered for *plastics*, include lignin, a byproduct of wood pulping; soybean protein; and bagasse, the residuum of sugar cane after the juice is removed.

Owing to unprecedented drought in the Northwest, the Bonneville and Grand Coulee dams recently supplied around 45% of the entire *power* requirements of the States of Oregon and Washington.

The "Four Horsemen" of *disease*, which have done most to lose wars and determine the course of civilization, are typhus, plague, dysentery and malaria.

Dunking *tomatoes* in disease-infected liquids is a winter occupation of plant breeders at the U. S. Department of Agriculture, to find out which breeds are disease-resistant.

Certain *dehydrated vegetables* with a high vitamin A or C content must be kept in gas-proof packages, since conservation of the vitamins depends on the presence of an inert gas, such as carbon dioxide or nitrogen.

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The New York Museum of Science and Industry has elected SCIENCE NEWS LETTER as its official publication to be received by its members.

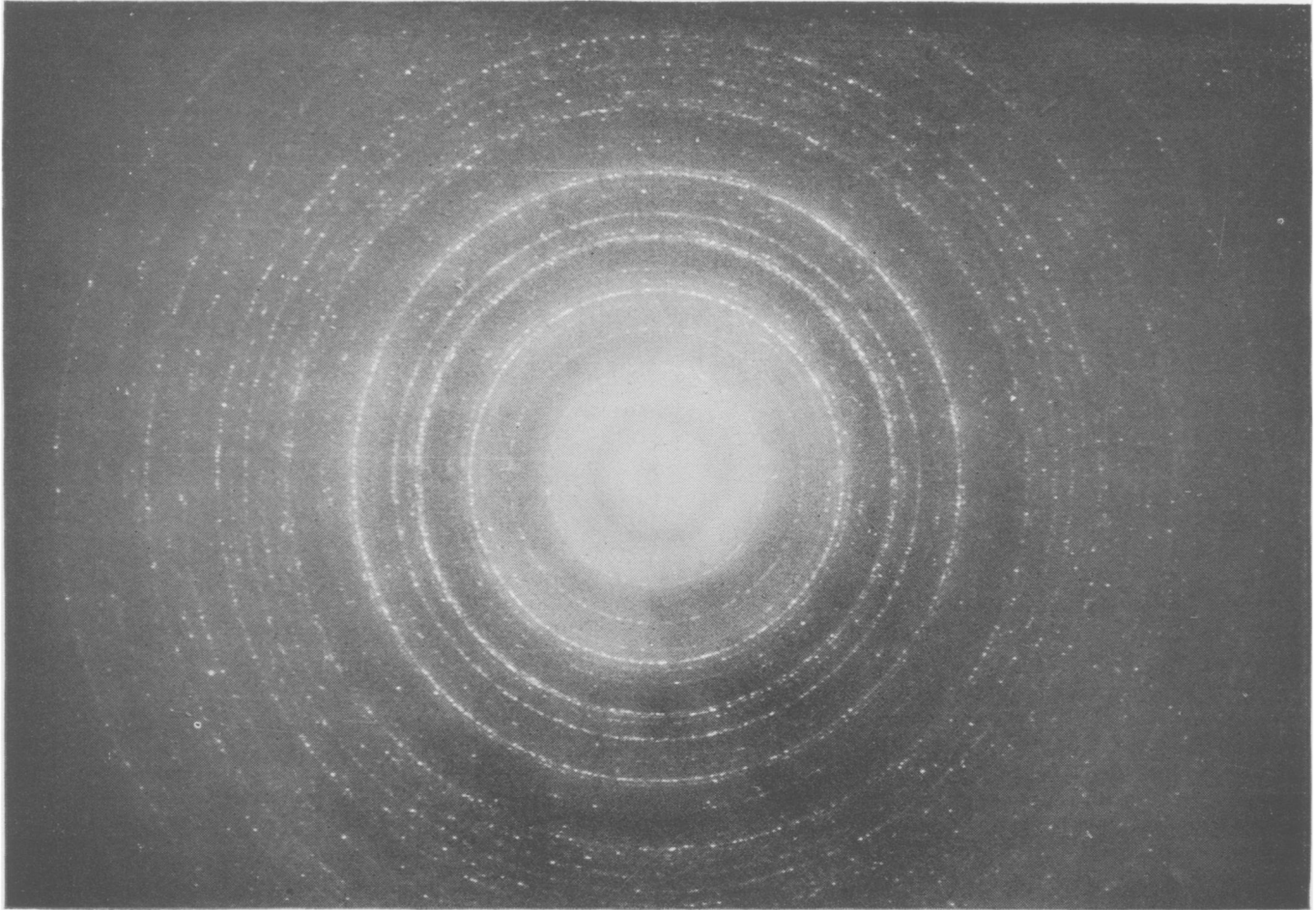
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Scientists call the picture a diffraction pattern—a pattern from electrons, which found

their way through the crystal lattice—that invisible, exquisite arrangement of atoms which nature fashions from humble table salt to the lordly diamond. It is a set of concentric circles, some diffuse, others sharp. From the dimensions of the circles and the intensities, the arrangement of the atoms in the material is determined, so that the crystal structure can be identified and analyzed.

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