



### Unafraid

**W**ILDLIFE is supposed to become gun-shy very easily. That is true, but only where the birds and beasts find that the guns are being consistently pointed at them. If the hunters are after game of their own species and let the wild things alone, they soon increase and multiply and possess No Man's Land in astonishing numbers.

It is an old story of the World War, how rabbits swarmed between the lines; and the tragic John McCrae told how, in the sky over Flanders fields, "The larks, still singing bravely, fly, scarce heard amid the guns below." The point seems to be, that without the visitation of death upon themselves, the terrible noise of death means nothing to these innocents of the fields and woods.

Even to man's pets and familiars, dogs, cats, and canaries, as well as to those ever-present intruder-guests the rats, the din of battle brings no terror. Troops in the field have their mascots and their pets; and working animals like carrier pigeons and police dogs seem to be less disturbed by the uproar than are the soldiers themselves.

A tale is told of a canary, carried, as such birds frequently were, as a living gas indicator (canaries detect gas long before human beings can) by an officer of English engineers. By accident the bird escaped, and flew out over No Man's Land, where it perched upon a limb and sang.

That made it necessary to kill the poor bird, because if the Germans saw it they would know something was afoot in the lines opposite and call for a barrage. So a sniper opened fire. But a canary is a tiny target for an army rifle. The bird paid no attention to the sniping, until one bullet barely missed it. Then it flew out a little farther.

Finally, in sheer desperation, the officer

telephoned to the battalion trench mortar section. The gravity of the situation created by the unterrified little bird was understood. A heavy fire of mortar projectiles was suddenly directed at the tree—and tree, bird and all vanished in a sheet of flame.

But it took the fire of a whole trench-mortar section to make one bird stop singing.

*Science News Letter, January 27, 1940*

### OCEANOGRAPHY

## Dropping Depth Charges For Peaceful Purpose

**A**N AMERICAN ship will be dropping depth charges in the North Atlantic for the next six weeks, but they will not have anything to do with the European war. The ship is the *Atlantis*, research vessel of the Woods Hole Oceanographic Institution.

Her depth charges go clear to the bottom and explode there, setting up small earthquake-like waves which are picked up by specially constructed seismographs, also resting on the bottom. The records will give information regarding the nature and thickness of the rock layers that form the ocean bed. The method was invented by Dr. Maurice Ewing, young Lehigh University geologist.

Unlike the gray-painted or camouflaged warships, that are made as nearly invisible as possible, the *Atlantis* is painted white, purposely to make her conspicuous. The *Hydrographic Bulletin*, U. S. Navy, advises all shipping to give her a wide berth in order not to interfere with her scientific work.

*Science News Letter, January 27, 1940*

### GENERAL SCIENCE

## Research By Industry Is \$215,000,000 Business

**I**NDUSTRIAL research is fairly big business in the U. S. A. Approximately \$215,000,000 was spent during the past year by 2,000 individual companies.

A survey by Dr. William A. Hamor, Mellon Institute of Industrial Research's Associate Director, showed that 32,000 scientists and engineers are engaged in industrial research, half of them in chemical, petroleum and electrical laboratories. Some 16,000 more persons backed up these scientists and engineers as assistants or clerical workers.

Leading investors in research during 1939 were du Pont with a research budget of \$7,000,000 and Dow Chemical Company spending \$1,400,000 on research.

About 110 individual companies in the field of chemical industry and forty trade associations make research grants to educational institutions. Approximately 200 college laboratories are used incidentally for industrial research and commercial testing. About 250 manufacturing corporations are sustaining long-range investigations in research foundations. While many companies with no laboratories of their own turn to the 250 commercial laboratories in this country.

*Science News Letter, January 27, 1940*

### PHYSICS

## Complementary Lighting A Trick for Black-Outs

**T**HE NIGHTLY "black-outs" in the European war have covered Europe's factory windows with all sorts of paint, often necessitating use of artificial light during the day. One trick in England is the use of complementary lighting instead of complete obliteration of windows.

Acting on well-known optical principles, the windows are turned into blue filters which will not pass orange light. The lamps used give orange light free from any blue rays. The lamps may be sodium vapor lamps or gas-filled lamps made of suitably colored glass or ordinary lamps suitably lacquered. Just as photographers acquire skill working under red and green light of low intensity, so factory workers get used to the yellow light. (*Nature*, Dec. 16)

*Science News Letter, January 27, 1940*



## GROW PRIZE-WINNERS CREATE UNHEARD OF PLANTS IN GARDEN - HOUSE - CLASSROOM

**SOILLESS GARDENING** (growing plants in chemicals) **COLCHICINE** (revolutionary chemical creates giant new unheard of plants and fruits, huge doubled and redoubled flowers) **PHOTOSENSIN** (makes plants vitally super-sensitive to light) **VITAMIN B1** (produces giant prize-winning "MYSTERY" flowers) **INSULATED GREENHOUSES** (electric lamps only heating plant required, use less glass makes greenhouses available to many)—the above mentioned articles plus page after page of **SCIENCE** and **MEDICINE**—and—

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