

pected to give 20% more range on the same fuel than conventional engines. It is manufactured by the Wright Aeronautical Corporation, a division of the Curtiss-Wright Corporation. Wright engineers said that the new engine is the most powerful of its kind in the world.

A \$32,000,000 contract from the Navy was announced for construction of the new Wright Turbo Cyclone 18 Compound engine plus standard plane engines.

Science News Letter, October 9, 1948

## CHEMISTRY

## Hydrogen and Helium Have Same Atomic Weight

► **HEAVYWEIGHT HYDROGEN** and lightweight helium are the newest research materials available to scientists from atomic energy piles.

Both the varieties of the two elements have the same atomic weight, three. Ordinary hydrogen, the lightest known chemical element, has an atomic weight of one, while helium, second lightest element, is commonly four.

Called tritium, hydrogen three is the only radioactive form of the element. It can be combined with oxygen to form heavy heavy-water, a different compound than the better known heavy-water.

Helium three is not radioactive and is extremely rare. There is about one-millionth as much helium three in nature as there is of the familiar helium atoms.

Both the new materials are produced at the U. S. Atomic Energy Commission's Argonne National Laboratory in Chicago.

Science News Letter, October 9, 1948

## GENERAL SCIENCE

## Iceberg "Census" Taken From Coast Guard Plane

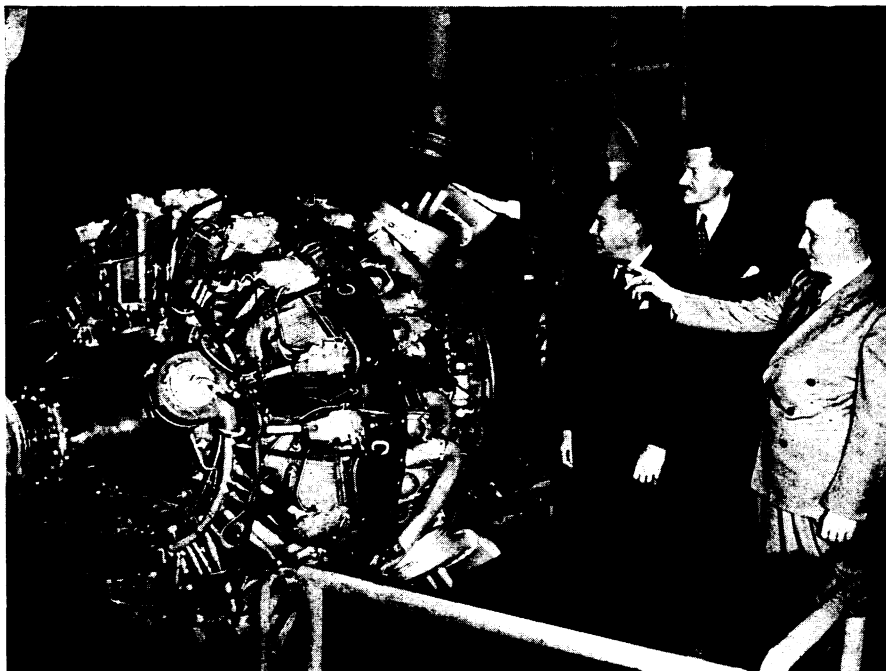
See Front Cover

► **THE ANNUAL ICEBERG "census"** was made from the air for the first time this year, the U. S. Coast Guard said.

The census is the post-season survey of icebergs, made as the last phase of the International Service of Ice Observation. By counting the thousands of icebergs, scientists can predict the number that may invade shipping paths during the next three years.

A Coast Guard converted B-17 plane was used to make a photographic survey, shown on the cover of this week's *SCIENCE NEWS LETTER*, of the many icebergs in the Baffin Bay area, source of the icebergs which move southward to menace North Atlantic shipping. With this more accurate record of the Baffin bergs, Coast Guard officials hope to be able to get more accurate predictions of iceberg activity. This will help provide more protection to ships in coming seasons.

Science News Letter, October 9, 1948



**COMBINATION AIRCRAFT ENGINE**—It combines a reciprocating engine with three turbines and is credited with being the most powerful aircraft engine of its type in the world. Three officials of the Wright Corporation are shown inspecting the new engine.

## MEDICINE

## Penicillin Fights Colds

Inhalation of the antibiotic in dust form has proved beneficial in patients with bad colds and more serious diseases of the breathing tract.

► **GOOD RESULTS** in treating common colds, chronic sinusitis and other, more serious diseases of the breathing tract with inhalations of penicillin dust are reported by three Chicago physicians in the *JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION* (Oct. 2).

The physicians are Dr. Louis Krasno of the University of Illinois Medical School and Drs. Mary Karp and Paul S. Rhoads of Northwestern University Medical School.

Common colds were "considered cured" in 42% of the 169 patients treated, with 38% judged as three plus improved. Stuffiness and congestion of the nose often improved immediately after treatment and sometimes the pain of an acutely sore throat was lessened within one-half to one hour after treatment.

Greatest merit of the treatment, the doctors believe, is in bronchitis and bronchiectasis. Twelve of the 38 patients with bronchiectasis were considered much improved and another 17 moderately improved.

The inhalations of penicillin dust were given one to three times daily, three to six

minutes usually being required to inhale the amount used. Patients were not allowed to eat or drink for one hour after each inhalation, to avoid washing the penicillin dust from the back of the throat. A mask over nose and mouth was used at first, but later patients were given the inhalations through a plastic mouth inhaler. This keeps the penicillin dust from coming in contact with the skin of the face and thus reduces the possibility of allergic reactions. These occurred in only three to six percent of 357 patients.

Treatments can be given at home and in the doctor's office as well as in the hospital. This permits the patient to "go about his business without loss of time and with minimum expense," the doctors report, adding that before the use of this treatment many patients with chronic lung disease were not given adequate treatment because of the expense of prolonged hospital stay and equipment.

A total of 517 patients have now been given the penicillin dust inhalation treatment.

Science News Letter, October 9, 1948