

## MEDICINE

# Pills To Ward Off Colds

**Anti-histamine chemicals, used for many allergy conditions, are now claimed effective in checking colds. They are available without prescription.**

► **WARDING** off a cold by taking a pill when you first feel the symptoms of a cold coming on is the promise now held out by drug manufacturers and by research reports, published and unpublished, from various parts of the country.

The pills which it is hoped will do this job of stopping the common cold, with its annual bill of billions of dollars and hundreds of millions of lost working days, will contain chemicals known as anti-histamines.

Results with up to 90% success in treating colds by these chemicals have been reported, and reports of even better results are about to appear.

The anti-histamines have been used to treat hay fever, asthma and other allergies, with both good results and failures reported. Until recently they have been sold only on a doctor's prescription. Two months ago (Sept. 2) one of them, with the trade-name of Neohetramine, was released for sale over the counter, without prescription, under the name, Anahist. Last month another of them, named Inhiston, went on sale over the counter.

Probably many others will be available this way within the next few months, since there are many anti-histamine chemicals made by different manufacturers. All of them doubtless will rush to file with the U. S. Food and Drug Administration new or amended new drug applications for over the counter sale of their products.

The American people may become eager guinea pigs this winter in large scale trials of some of these drugs, both as to the effectiveness and safety. Most of what has been known of the anti-histamine drugs so far has come from reports of their use in hay fever and other allergies.

Two limiting factors, one potentially dangerous, have shown up in the allergy studies with the drugs. These are: 1. The same drug that gives relief to one hay fever patient is ineffective in another, and there is no way of knowing without trying the drugs which will be effective in which patient. Whether this will be true in the use of the drugs for warding off colds has not yet appeared.

2. Drowsiness has been the chief unpleasant symptom coming from the use of anti-histamine drugs. This symptom has seemed to affect some patients more than others. It may range from mild to the serious state where sleep would overcome a person while driving a car or operating machinery, with consequent danger to the person taking the drug and to others.

The anti-histamine drugs now released

for over-the counter sale for colds are said to have little or none of this effect in the amounts contained in the pills, if used according to directions.

Basis for use of anti-histamine drugs in treating colds is the relatively new idea that a cold is an allergic response to the protein of the cold virus, somewhat as hay fever is an allergic response to the protein of plant pollens. Release of too much of the normal body chemical, histamine, in some persons in response to the protein, is believed the cause of the symptoms in hay fever and, according to the new theory, in colds. Anti-histamine chemicals should control or stop the symptoms by counteracting the histamine.

Science News Letter, November 5, 1949

## ENGINEERING-AERONAUTICS

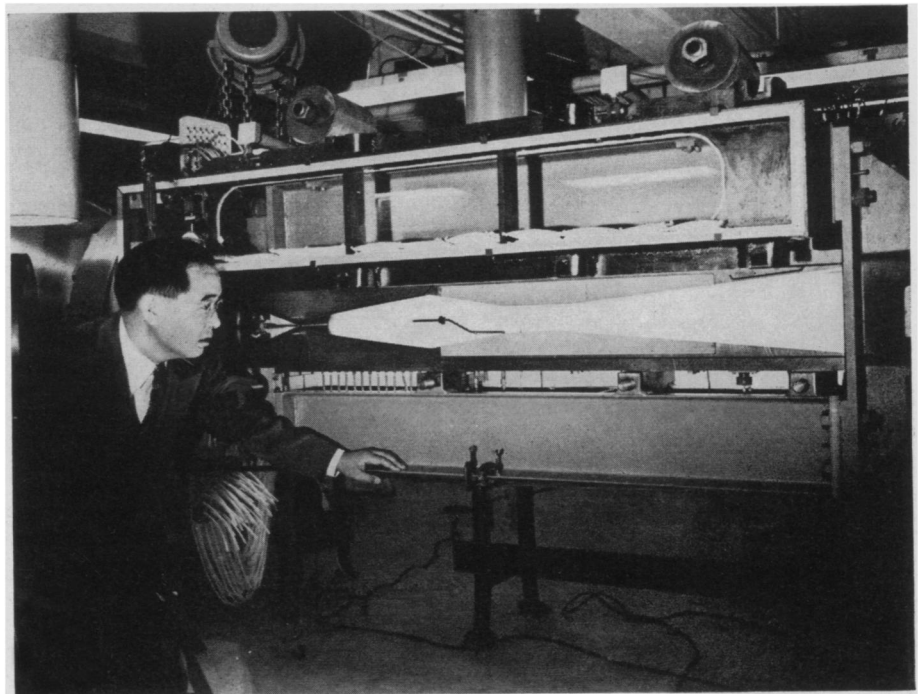
# Hypersonic Wind Tunnel

► **THE** highest air velocity in a wind tunnel, ten times the speed of sound or approximately 7,600 miles per hour, is attained in a new tunnel now completed at the California Institute of Technology, Pasadena, Calif. It was designed and built for the Army Ordnance Department.

Previous highest known speed of air flow in supersonic wind tunnels was about seven times the speed of sound. This tunnel is needed by ballistic experts of the Army to develop guided missiles of extremely high speed. It will be used in studying what they call the inevitable intercontinental missiles of the future.

An early use of this so called hypersonic tunnel will be to obtain basic information about the design, performance and instrumentation of tunnels for extreme high speeds. Basic experimental data on shock-waves, boundary layers and the flow past models at hypersonic speeds will be obtained.

The test section of this tunnel, in which models of missiles are mounted, is five by five inches in size, although the entire test section stretches to an over-all length of four feet. To accelerate in the expansion section of the tunnel, air must pass through a slot in the throat of a specially designed



**WORLD'S FASTEST WIND TUNNEL**—Unprecedented speed in excess of ten times that of sound has been obtained in this wind tunnel. Dr. Henry T. Nagamatsu, Caltech director of the tunnel, is shown examining the test section.

steel alloy nozzle. A schlieren optical system is used to photograph the fast moving air as it speeds past the models in the test section.

The new tunnel is installed in the Gugenheim Laboratory of Aeronautics on the campus of the Institute in a building espe-

cially designed for it. A total of 15 compressors supply the air for the tunnel. The tunnel was designed by Dr. Allen E. Puckett, and will be operated under Army Ordnance contract by Dr. Henry T. Nagamatsu of the laboratory staff.

Science News Letter, November 5, 1949

#### ARCHAEOLOGY

## Indians' Increase Traced

► THE ancient inhabitants of the Flagstaff, Ariz., area, who disappeared about 600 years ago, were once almost as numerous as the population today, thanks partly to a volcano which erupted beneficial water-retaining ash over a wide farming area.

Today there are about 10,000 people living in the area. In the year 1160 A.D. the vanished Indians reached an estimated peak of 8,416. Ninety years later the population had dropped to a mere 612, and a hundred years after that, in 1350, the pueblo dwellers had completely disappeared.

The rise and decline of the Flagstaff area prehistoric residents have been traced in their pottery remains by Harold S. Colton, president of the Northern Arizona Society of Science and Art. The ceramic record goes back to the year 500 A.D. when the population was 300. The rise was more or less slow until the year 1167 when volcanic ash falling from Sunset Crater suddenly increased the agricultural capacity of the area. The ash formed a black sand mulch which held the moisture in the soil.

The cause of this rapid decline from the high point of population, Dr. Colton believes, was poor sanitation and faulty agricultural methods which ruined the arable land.

To arrive at such precise figures and dates, Dr. Colton believes that "the archaeologist must have courage enough to take his feet off the concrete and soar into the

sky of speculation." His method, which is similar to the one he employed in an earlier study in 1936, is first to assign dates to the pottery which has been recovered from some 1,500 sites in the area. These dates are fixed with considerable accuracy by the tree ring method.

Then by estimating the number of inhabitants per pueblo or pit house for each time sequence, he draws up a population census which shows the slow climb to peak population and then the sudden drop into extinction.

Science News Letter, November 5, 1949

#### GENERAL SCIENCE

## Scientists in U.S. and Europe on Equal Terms

► AMERICAN scientists are on about equal terms with their European counterparts as far as fundamental work is concerned, Dr. Robert H. Kriebel of the General Electric Research Laboratory declared.

Returning from a European trip during which he inspected technical and scientific activities, Dr. Kriebel declared that "European scientists are unusually original and imaginative, but are hampered by lack of suitable facilities." Scientists here lead the world in the application of technical knowledge, he noted.

Science News Letter, November 5, 1949

## On This Week's Cover

► COSMIC ray particles which smash deep into the earth from outer space will be studied in this worked-out cavern 2,250 feet underground in the Cayuga Rock Salt Company's mine near Ithaca, N. Y. Lowell M. Bollinger of Cornell University is shown checking a cylinder of 48 Geiger counters and other cosmic ray recording apparatus in preparation for the experiment.

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