

MEDICINE

# Coughs May be Prevented By Process of "Hardening"

Some Coughs Called Useful by Chicago Physician,  
Who Presents Full Discussion in Medical Journal

**I**F YOU can not take your cough south this winter, what should you do with it?

Eight pages in the current issue of the *Journal of the American Medical Association* are given over to the treatment of coughs. Dr. Bernard Fantus, director of therapeutics at Cook County Hospital, Chicago, is the author of this exhaustive treatment of an exhausting complaint.

A person who has constant colds and a cough that hangs on all winter but disappears in the summer needs "hardening," Dr. Fantus declares. He needs to be taught to wear either fewer or more clothes, as the case may be, and to lead an outdoor life. If he is too old or too

sick to go through the hardening process, a change of climate is recommended.

For the chronic coughers who can not afford to travel, there remains the artificial tropical climate of indoor confinement. Such a cougher needs to have a uniform temperature day and night. The bed should be warmed before he gets into it. He should have a glass of hot lemonade at bedtime and the first thing in the morning.

The doctor rarely tries to check a cough, Dr. Fantus says, because most coughs are useful. He tells the various measures used successfully at Cook County Hospital to treat the three kinds of useful coughs: the tight cough, the loose cough, and the insufficient cough.

A doctor is very loath to condemn a cough as useless. A cough is useless when it fails to bring up any secretion because there is none to bring up. The useless cough is harmful for the reason that coughing begets coughing. Violent coughing irritates the bronchial tissue and such irritation leads to further coughing.

The nervous cougher furnishes an example of the useless type of cough. He coughs when there is an embarrassing pause in the conversation or when some one inquires about his health.

All chronic coughs, according to Dr. Fantus, are due to "irritation plus," "nutrition minus," or a combination of the two.

*Science News Letter, February 8, 1936*

ARCHAEOLOGY

## Cast of Easter Island Head Placed in American Museum

**A**N ALICE in Wonderland dream. A human head ten feet tall, with a neck but no body. This is the gigantic trophy an expedition has brought back from mysterious Easter Island to show Americans what the famed great stone faces of that Pacific isle are like.

The giant head is greeting strangers with a scowl, in the entrance hall to New

York's American Museum of Natural History. When Dr. Harry L. Shapiro, anthropologist of the American Museum-Crocker Pacific Expedition, stands beside his strange trophy, his eyes are on a level with the Mystery Man's nose—that is, just the tip of the nose—and his hand rests comfortably at the Mystery Man's pouting mouth.

The head is a plaster cast, made with great difficulty under broiling sun and amid clouds of insects, by Toshio Aseida of the expedition staff.

The expedition could have chosen a head 30 or 40 feet tall to cast, but chose a conservative size, as being enough of a technical problem. The museum might have been embarrassed by a 40 foot head to take care of, Dr. Shapiro figured.

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GENERAL SCIENCE

## Laymen Should Know About The Findings of Science

**T**HE LAYMAN should learn more about the work of science, and scientists show the way to this result by being willing to tell of their discoveries. This in substance was a major part of the address of Prof. W. A. Neilson, president of Smith College, before the St. Louis meeting of Phi Beta Kappa honor society.

Said President Neilson in part:

"I come now to the question of the popularization (of science). It is natural and proper that the scholar should seek his first audience among his fellow scholars, that he should submit the results . . . to a jury of his peers, and should find his main satisfaction in their approval. Until their verdict has been rendered, there is danger both to the scholar and to the truth he believes he has discovered in carrying it to the lay public, and the shade of disapproval that hovers about the word 'popularizer' has its origin in a wholesome reluctance. Realizing this, I yet wish to make a plea for the rights of the intelligent public outside the ranks of professional investigators to share the results.

"The main reason why inaccurate reports of such matters reach the general public is the unwillingness or inability of the research scholar to provide an account for the general reader himself. We may as well recognize the fact that the newspapers and the public will be served, if not by those who know, then by those who half-know. The support of research must ultimately come from the laity: it is of immense importance



FROM EASTER ISLAND

that the laity be as well-informed as possible.

"It may be objected that there is much of the greatest importance in modern science that is too difficult to be explained to the general reader . . . but I believe it is not nearly so frequently true as the specialist is apt to think. The most difficult ideas to explain to the layman are often those that are obscure also in the mind of the professional.

"Much of the difficulty comes from terminology. I am well aware of the fact that a technical terminology may save time and avoid inaccuracy: in mathematics, of which I know nothing,

it would seem to be essential and untranslatable. But, at the risk of being numbered with the Philistines, I venture to say that it is often unnecessary hocus-focus. The medical profession, for which I have unbounded veneration, has for a thousand years harbored practitioners who sought to gain prestige among the ignorant by using Greek and Latin terms for phenomena with perfectly good English names. And today the sociologists are building up a terrible jargon, though I have yet to find in their books an idea which is not capable of being explained in standard English."

*Science News Letter, February 8, 1936*

#### CHEMISTRY

## Chemists Seek Uses For Molasses-Thick Oil

**M**OLASSES in January has a new and peculiar rival in the form of "viscous oil," a Western petroleum product. Specimens of this oil now being inspected by manufacturers resemble clear, transparent honey, but of so thick and sticky a character that the liquid can scarcely be poured from a bottle. With substantial quantities of the oil available upon demand, petroleum engineers are now speculating on possible uses for a fluid which is so sluggish that it measures, at 100 degrees Fahrenheit, as high as 144,000 on the Saybolt scale of viscosity.

R. A. Halloran, petroleum research chemist of San Francisco, describes the new viscous oil chemically as purely hydrocarbon in composition, with very high flash point. Different degrees of viscosity may readily be attained in manufacture, running all the way from a relatively thin oil, like common intestinal lubricant, to the extremely thick, almost taffy-like higher product. The most viscous oil exhibited has an average molecular weight of 1280, indicating to chemists that a single unit particle of the liquid contains nearly one hundred atoms of carbon. The chemical structure is a matter of dispute among chemists, some thinking that the carbon atoms are bunched in grape-fashion. Others regard them as clumped together in multiple rings.

"These products are manufactured from petroleum," states Mr. Halloran, "but do not occur naturally in the crude. The higher members are very inert and

resistant to oxidation. They form no carbon residue on heating and contain no sulfur or acid compounds of any nature."

The attractive appearance of the viscous oil, while suggestive of hot biscuits and pancakes, is quite deceptive. Not only is the oil tasteless and odorless, but it is totally indigestible. Perhaps its most promising application will be in the role just opposite to that of a lubricant—a medium which will retard motion instead of assisting it.

*Science News Letter, February 8, 1936*



THE EARTH IS AN ONION

#### ENGINEERING

## Storm Windows Save Fifth Of Coal in Test House

**F**UEL savings of one ton of coal out of every five burned have been obtained by the use of storm doors and windows on the research home maintained by the University of Illinois, according to the report presented to the meeting of the American Society of Heating and Ventilating Engineer. Prof. A. P. Kratz and S. Konzo, research associate, of the Engineering Experiment Station, made the announcement.

Using a coal-fired furnace with a forced-air heating system, the house was maintained at a temperature of 71 degrees Fahrenheit by thermostat control.

It took from 100 to 260 pounds of coal each day to maintain the 71 degrees in outside temperatures from 40 to zero degrees Fahrenheit if the storm windows were not in place. With storm windows, the same outside conditions required only from 80 to 200 pounds of coal daily. Thus 20 pounds of coal were saved on 40-degree days and 60 pounds on zero days.

"The results indicate that a saving of 20 per cent. in the seasonal fuel consumption could be reasonably attributed to the installation of storm doors and windows," concluded the scientists.

Other results include:

1. Storm sashes practically eliminate the entrance of soot.
2. Higher relative humidity can be maintained indoors before condensation appears on the glass.
3. Storm windows reduce the draft of cold air down the windows and thus increase the temperature of air near the floor.

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#### GEOPHYSICS

## Model Shows Layered Interior of Earth

**T**HE earth is not simply a round lump of stone, uniform from core to circumference, as the more enlightened among the ancients thought it. Neither is it a thin-crust ball of liquid fire, as more recent notions would have it. It is a series of concentric shells, laid onion-fashion over a solid core that seems to be made of nickel-iron.

This doctrine, largely the product of studies of earthquake waves that have passed through the earth, is given concrete illustration in the built-up sectioned globe shown at the recent meeting of the American Association for the Advance-