

MEDICINE

# Find First Line Of Defense Against Colds Is in Nose

Thin Moist Coating Is Barrier to Invaders; Dryness For Even Half an Hour Allows Colds to Gain a Hold

**W**HEN you are under emotional or physical strain and your nose and throat feel dry, your first line of defense against troublesome and dangerous colds is being smashed, even though you have not sneezed your first "kerchoo."

This was revealed by Dr. J. Kent Leasure, of Indianapolis, to the American Academy of Ophthalmology and Otolaryngology meeting in Chicago.

The thin, moist coating of mucus in the nose is the body's barrier to the cold invaders. Let the glands secreting this mucus be put out of action for even as short a time as a half hour, the defense is penetrated. The cold-causing organisms can get into the human system and produce their unpleasant and dangerous effects.

Nerve control is the secret of cold prevention. When one set of nerves gets the upper hand over another set of nerves, production of the mucous coating that holds back invading cold organisms is stopped. The second set of nerves stimulates mucus production. The antagonistic set of nerves does not, and these are the nerves that go into action in emergencies such as shock, sudden changes in temperature and fatigue.

This seems to explain why people get colds from sitting in a draught, getting chilled or overheated, or staying up too late at night after a hard day of work.

*Science News Letter, October 21, 1939*

## Rare Eye-Beat Condition

**A** RARE kind of eye trouble, in which the eye protrudes from its socket and beats or throbs in time with the heart beat, was reported by Drs. S. J. Meyer and H. Saul Sugar, of Chicago.

Skull fractures from automobile accident injuries or other hard blows on the temple may cause the condition, but it is most often due to rupture of the carotid artery, the big artery running up the side of the neck, at the place where it passes through the large venous channel behind the eye.

Besides the severe deformity of the eye, the patient hears the disagreeable

noise of the blood rushing from the artery into the vein. The physician can hear this by listening through his stethoscope applied at the temple, and a whirring sensation is felt through the eyelid.

For relief, it may be necessary to tie the internal carotid artery.

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## Vitamins for Eye Trouble

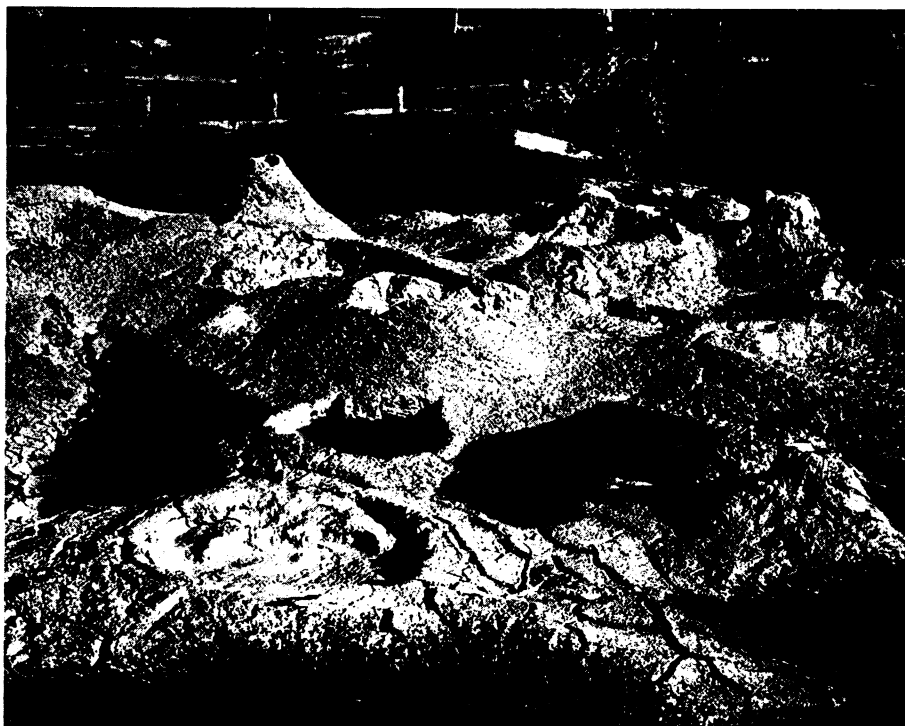
**D**IABETIC patients whose vision has been impaired by bleeding into the retina of the eye have been helped by large doses of vitamins B and C, Dr. Jonas S. Friedenwald, of the Johns Hopkins University and Hospital, reported.

In these patients the tiny veins and arteries of the retina have very fragile walls and consequently bleed easily. Ordinarily, vitamin C, the scurvy-preventing vitamin of citrus fruits and tomatoes, makes these fragile blood vessel walls sturdier, thus controlling the bleeding tendency. Tendency to bleeding from tiny blood vessels because of deficiency of vitamin C is one characteristic of scurvy itself.

Diabetic patients, however, apparently do not always utilize vitamin C normally, so even when given large doses of it, their eye condition does not improve. But when vitamin B, the vitamin found abundantly in yeast and liver, is given with vitamin C, the resistance of the small blood vessels in the eyes of diabetics is restored to normal, Dr. Friedenwald found. He reported "marked improvement" in the eye condition of a small group of diabetic patients who were given the double vitamin treatment.

Vitamin B is made up of a number of different vitamins which scientists have recently been separating. Which part of the B complex is responsible for the improvement is not known yet.

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LUNAR LANDSCAPE IN MINIATURE

Looking almost like a model of the surface of the moon, the famed "paint pots" of Yellowstone National Park always attract their share of fascinated attention from tourists. They are more like what the moon may have been a billion years ago, however, for they are still alive and actively changing, as hot steam constantly works up from underneath. This photograph was made and copyrighted by J. E. Haynes.

## Vitamins for Syphilis

**V**ITAMINS, or at least a diet with plenty of vitamins to build up the patient's general health, are a necessary eyesight-saving addition to treatment of syphilis of the brain and nervous system, it appears from the report of Dr. William M. Muncy of Providence, R. I.

High degrees of artificial fever plus powerful arsenical drugs are used in treating this kind of syphilis, but the combined treatment was found to cause inflammation of the optic nerve in a number of patients who had no previous eye trouble.

Vitamin deficiency was believed responsible. Dietary building-up restored to normal the vision of a number of these patients, after which they were able to stand repeated doses of the necessary arsenical treatment for the syphilitic condition without further symptoms of visual disorder.

*Science News Letter, October 21, 1939*

## RADIO

Dr. Ira Gabrielson, chief of the U. S. Bureau of Biological Survey, will be the guest scientist on "Adventures in Science" with Watson Davis, director of Science Service, over the coast to coast network of the Columbia Broadcasting System, Monday, October 30, 4:30 p.m., EST, 3:30 CST, 2:30 MST, 1:30 PST. Listen in on your local station. Listen in each Monday.

### AERONAUTICS

# Giant Propellers Being Made From Wood And Plastics

**T**HE world's largest propellers for airplanes, designed for the super-giants of the air, are now being made at the Riverdale, Md., laboratories of the Engineering and Research Corporation, near Washington.

Unique are these newest blades for they are of composite structure and contain light wood, hard wood, plastics and metal.

Fred E. Weick, chief engineer of the E. & R. Corp., described the new propellers at the meeting of the Washington Section of the Society of Automotive Engineers.

The largest blades yet made by the composite process measure 17.5 feet from tip to tip but engineers see no size limitation to the method. The large propellers of the Pan American "clippers," now flying the Atlantic, measure 14 feet.

The new composite blades are easily produced, are 33% lighter than comparable metal propellers, are strong and have low cost, said Mr. Weick.

The blades consist of a core of lami-

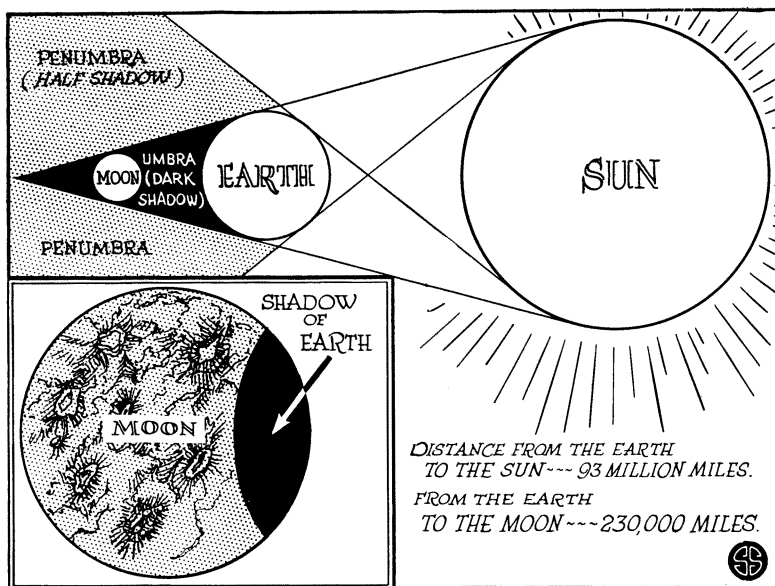
nated light wood which merges into a root of impregnated and compressed hard wood. This, in turn, is threaded into a controllable pitch propeller hub. The whole blade is covered with a heavy coating of reinforced plastic and the leading edge is protected by a flush strip of metal.

As aeronautical engineers have sought to get greater and greater power for airplanes they have been forced to go to larger propellers, for the greater the power the greater must be propeller diameter to retain equal efficiencies.

While much progress has been made in speeding up engines so that they turn over more rapidly, there is a limit in this direction, for the propeller tip must not move at speeds comparable with those of sound, about 740 miles per hour.

Interest in lighter propellers comes because as the size of a propeller increases its weight goes up faster in proportion than does the power it will deliver. This gives a light but strong propeller a sizable edge in utility.

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**EARTH'S SHADOW ON MOON**

An almost-total eclipse of the moon will greet Americans and Canadians on the night of Oct. 27-28. Lunar eclipses occur only when the moon is full, for only then is the moon on the opposite side of the earth from the sun, and thus in position to pass through its parent planet's shadow. The sun is approximately 400 times as far from the earth as the moon is from the earth. The moon is farthest from the earth this month on Oct. 22, a matter of 251,600 miles.

### BOTANY

## Night-Blooming Cereus Opening Is an "Event"

See Front Cover

**Q**UEEN of the Night, is one romantic but appropriate name that has been bestowed upon the night-blooming cereus, that miraculous cactus with snaky stems that look almost like dead sticks, and flowers that seem to be more of heaven than of earth.

One night only does the flower of the night-blooming cereus last. It opens after dark, so rapidly that the movement of its sepals and petals can actually be observed by our impatient human eyes, while the mass of stamens at its heart keep up a constant trembling motion, almost as if it were animal rather than plant. And the expectant air grows heavy with rich perfume.

Next morning, the flower is collapsed, withered, dead. The Queen of the Night is glorious, but her reign is very brief.

*Science News Letter, October 21, 1939*

The only wild monkeys in Europe live in caves on the Rock of Gibraltar.