

## Questions

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**GENERAL SCIENCE**—Why may personnel raids now be more successful at the National Bureau of Standards? p. 247.

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Photographs: Cover and p. 245, National Institutes of Health-Federal Security Agency; p. 243, Fremont Davis; p. 250, Bodger Seeds Ltd.; p. 256, Micro-Moisture Controls, Inc.

### SURGERY

## Blood Pressure Control

► **SURGEONS OPERATING** to relieve dangerously high blood pressure and certain other ailments by cutting some of the body's sympathetic nerves from the spinal cord will get better results if they cut more extensively, it appears from research reported to the Federation of American Societies for Experimental Biology meeting in Chicago.

The nerve cutting operation is done in the hope of preventing constriction of small blood vessels which would increase the blood pressure. It is also done in some cases of artery hardening and of another disease of the blood vessels and circulation called Buerger's disease.

The need to do more extensive cutting in this operation was learned in experiments by Drs. Walter C. Randall, J. William Cox, William Alexander, A. B. Hertzman and K. B. Coldwater of St. Louis University School of Medicine and the Veterans Ad-

ministration Hospital, Jefferson Barracks, St. Louis.

The applied electrical stimulation to the sympathetic nerve of patients at the time of operation and measured sweating on the extremities. The sweating shows which portions of the nerve are affecting the foot and leg. This gave definite information as to how much of the nerve had to be cut.

In some cases, even after the entire sympathetic nerve trunk in the mid-back was cut, sweating persisted. It was possible to trace this to accessory nerve cells in certain spinal nerves.

But the scientists also found that control of blood vessels and control of sweat glands do not always go together. Further studies are needed, they said, on control of the blood vessels alone by the sympathetic nervous system.

Science News Letter, April 18, 1953

### PHYSIOLOGY

## Clue to Dreamers

► **NOW YOU** can tell when your sleeping spouse is dreaming.

Two physiologists have reported that they detected a peculiar pattern of rapid jerky eye movements two or three times a night in test subjects. If the subjects were awakened when they jerked their eyes in sleep, they usually said they had just been dreaming. What they were dreaming about was not mentioned.

Eye movements were recorded by attaching electrodes to the skin above and below and on each side of one or both eyes of the subject. At the same time other wires attached to the head recorded the brain waves. With all these wires leading from his head and face, the subject then went to sleep.

The scientists who did the work were Drs. Eugene Aserinsky and Nathaniel Kleitman of the University of Chicago. They reported their findings to the American Physiological Society meeting in Chicago.

Eye jerking first occurred about three to three and one-half hours after the subject went to sleep. Sometimes a dream seems to last for 15 to 20 minutes and once for as long as an hour.

Then two to two and one-half hours later more eye jerking occurs, and, if the night's sleep lasts long enough, another period of jerks just before he wakes up.

"Should further investigation confirm the tentative conclusion that these clusters of eye movements are concurrent with dreaming," the physiologists said, "it will be possible, for the first time, to obtain objectively data on incidence, frequency and duration of

dream episodes and to relate an individual's dream pattern to other characteristics of his personality or living habits."

Science News Letter, April 18, 1953

## • RADIO

Saturday, April 25, 1953, 3:15-3:30 p.m. EST

"Adventures in Science" with Watson Davis, director of Science Service, over the CBS Radio Network. Check your local CBS station.

Dr. Alan Boyden, professor of zoology and director of the Serological Museum at Rutgers University, New Brunswick, N. J., discusses "Blood Will Tell."

Trash and brush should be burned in the evening, not in the morning; many fires started in the morning get out of control because the outdoor temperature rises, the humidity drops and the wind picks up.

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### MEDICINE

## Human Cancers Grafted On Experimental Animal

► **SUCCESSFUL GRAFTING** of human cancers onto laboratory animals, expected to accelerate the fight against cancer, has been achieved by pre-treating the animals with the anti-arthritis hormone, cortisone, Drs. Cornelia Hoch-Ligeti and Y. T. Hsu of the University of Virginia School of Medicine, Charlottesville, announce.

Tests of new potential anti-cancer remedies have heretofore for the most part had to be made on either human cancer patients or on animal cancers in laboratory animals. Now scientists should be able to test such remedies on human cancers but in laboratory animals, they report in *Science* (April 3).

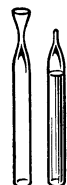
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