

## NATURAL RESOURCES

## Discover Atomic Mineral In Southeastern States

► EXTENSIVE NEW discoveries of monazite, mineral containing thorium, extending 700 miles through the southeastern states have been made by Dr. John B. Mertie, of the U. S. Geological Survey.

The exact extent of the deposits of this granite-contained mineral is not available because of the importance of thorium as atomic energy raw material. Thorium can be converted into a fissionable sort of uranium by neutron bombardment and thus supplement uranium-derived atomic bomb material.

A whole new belt of deposits was discovered by Dr. Mertie. This ranges 250 to 300 miles from not far south of Washington to Columbia, S. C., and a known belt westward in North and South Carolina has been extended for 450 miles northeastward into Virginia and southwestward into Alabama. Monazite occurs in granite and weathers out into placer deposits from which it can be mined.

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## PHYSIOLOGY

## Why People Wake Up Believed Discovered

► THE SECRET of why you wake up in the morning or why you can't go to sleep at night is thought to have been discovered by Dr. Horace W. Magoun and associates at the University of California at Los Angeles Medical School and the Long Beach Veterans Administration Hospital.

"The waking mechanism of the brain," Dr. Magoun finds, "seems to be located in the central core of the brain stem, located at the top of the spinal column."

"The brain is known to emit electrical discharges called 'brain waves'. They have definite characteristics in both wakefulness and sleep. When awake, laboratory animals are found to emit fast waves of low amplitude; when asleep, they emit slow waves of high amplitude."

Controlling the central core of the brain stem, Dr. Magoun could induce wakefulness by activating it, abolish wakefulness by destroying it, and increase its electrical discharge by stimulating it through sensory inflow.

Associated with Dr. Magoun in the experiments have been Dr. Giuseppe Moruzzi of the University of Pisa, Italy, Dr. D. B. Lindsley and Dr. J. D. French of U. C. L. A., and Tom Starzl, a Northwestern University medical student.

The studies were maintained by a grant from the Commonwealth Fund and are being continued at the Long Beach Veterans Administration Hospital where Dr. E. V. Edwards, hospital manager, has long supported such activities.

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### Befriended by Foes

► COYOTES, zoologists tell us, are not only present over most of their pre-settlement range, but have actually extended it, even appearing on the outskirts of rather large cities.

Despite the lack of welcome they receive from civilized man, these little wolves of the prairie find it profitable to hang around his settlements and ranches, where they can snap up poultry, lambs and shoats, and feast on carrion and garbage.

There is a certain element of justice in this. When the white man pushed his frontier out into the West, he not only killed all the coyotes he could shoot, trap

and poison, but he destroyed a major part of the natural food of those who were crafty and hardy enough to survive direct attack, by killing or driving away most of the game and plowing up the sod where swarming rodents nested. So if a coyote steals a few hens he is only getting even for the loss of an equivalent weight in prairie-dogs, field-mice and grasshoppers.

There is one factor in the spread of the coyote east of the Mississippi during recent decades that is often overlooked. The coyote is naturally an animal of the plains and prairies; he is not at home in the timber.

When the white man came, most of the East was heavily forested. Settlers cut and burned the trees to make way for farms. This huge-scale clearing, which had much to do with the disappearance of the timber-wolf, meant simply an extension of the prairies to the coyote. So he has been moving in. And if the farmer supplies him with occasional poultry and piglets, so much the easier is life.

The coyote is by no means the unmitigated thief and general pest that he is sometimes pictured by exasperated victims of his raids. His principal diet still consists of small rodents, which in the aggregate devour a great deal more of the farmer's or rancher's substance than a few furtive predators are likely to get away with.

Also, by cleaning up the carcasses of animals dead of accident, disease or exposure, the coyote performs a direct service. Moreover, he is musical. Many a rancher who plots his destruction by day, will admit by campfire light that "he kinda likes to hear the old cuss howl."

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## PHYSIOLOGY

## Warn of Eye Disease

► THE LEADING cause of blindness among grown people in the United States is a disease called glaucoma. Glaw-koma is the way to pronounce it. One out of every eight blind persons is a victim of glaucoma.

Most people with this eye disease can be saved from blindness if proper treatment is started early in the course of the disease. But unfortunately, many do not know they have glaucoma.

The best defense against the disease is a thorough eye examination at least once every two years after you reach the age of 40, the National Society for the Prevention of Blindness advises. This is because the disease strikes after age 40 in most cases, and comes on slowly without many symptoms in the early stages.

Warning signals which may mean glaucoma are: 1. frequent change of glasses, none of which is satisfactory; 2. inability to adjust the eyes to darkened rooms such as theaters; 3. loss of side vision; 4. blurred or foggy vision; 5. rainbow-colored rings around lights. Any of these may also be

caused by less serious eye trouble. But because they may mean glaucoma, they should signal you to see your doctor at once, without waiting until time for the next two-year check.

Here is an explanation, from the National Society for the Prevention of Blindness, on how glaucoma destroys sight:

The eyeball is shaped much like a basketball. But instead of air, a thick, jelly-like fluid fills most of the eyeball to give it shape. During the first stages of glaucoma, the pressure of this fluid mysteriously increases and pushes against the retina. In this way the retinal nerves are damaged and sight is gradually lost, with side vision the first to go.

In treating glaucoma, the doctor uses either an operation or drugs, and sometimes both, to reduce pressure in the eyeball. There are two types of glaucoma; the acute type which strikes suddenly; the chronic type, which is far more common and works slowly and painlessly.

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