

PSYCHOLOGY

Chemical Causes Anguish

Theory holds that alpha substance in the blood sensitizes brain tissue of susceptible persons, causing the worry and depression of mental patients.

► THE ANGUISH felt by some patients with intractable pain and by some mental patients is caused by a substance in the blood.

This new view of the cause of such anguish has been developed by Dr. Carney Landis of the Psychiatric Institute, Columbia University.

The anguish substance or chemical in the blood is so far only hypothetical. It has not actually been detected. Dr. Landis therefore names it only after the first letter in the Greek alphabet, alpha.

The alpha substance, he believes, sensitizes some of the brain tissue, probably the frontal lobes, in susceptible persons. Not all persons are susceptible, just as some but not all persons are sensitized by ragweed pollen to develop hay fever.

Existence of this alpha chemical explains, Dr. Landis thinks, why some patients who have had their anguish reduced by various treatments later relapse.

Some mental patients lose their anguish spontaneously, that is, for no known reason. Others lose it after operations in which nerve paths in the frontal lobes of the brain are cut. Some lose it after insulin, metrazol

and electroshock treatments. Injection of certain barbiturates into the veins relieves the anguish of mental patients for short periods. Psychiatric treatment sometimes relieves it.

But the anguish may return. If it does, it is not any different a feeling than it was originally. The same is true for patients whose intractable pain has been relieved by the frontal lobe operation. A second operation or some other kind of treatment may relieve the relapse.

For these reasons, Dr. Landis thinks anguish is related not to a special part of the brain but to a special sensitivity of it to a substance in blood. He reports his theory and suggests some special studies in the *Journal of Nervous and Mental Disease* (Vol. 115, No. 3).

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HERPETOLOGY

Has White Body, But It Is a Black Snake

► AN ALBINO black snake, with pink eyes and body white as carved ivory, is the

new rare specimen in the National Zoological Park, Washington. Captured by Frank A. Davis of Silver Spring, Md., it was presented to Dr. William Mann, director, who reports that he knows of no other albino black snake now in American zoo collections. It is a young specimen, one and a half feet long, and probably of the pilot black snake sort that normally is black with white underneath.

An albino snake of the plains garter snake variety is being raised in Illinois. (See SNL, Oct. 25, p. 265.)

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ENGINEERING

New Car Operation Costs Eight Cents a Mile

► IF YOU operate a relatively new car you pay about eight cents a mile in travel costs.

If your car is of an expensive make, the price runs up to 10 cents a mile.

Figure it out: if you run a car 1,000 miles a month, chances are it costs you \$80 to \$100 per month, depending on the kind of car you drive.

You can cut down by running a "jalopy," doing your own repair work, and cutting out garage rent. This way you can get the cost down to two or three cents a mile.

These are some of the findings of a study by Dr. Ralph A. Moyer of the University of California Institute of Transportation and Traffic Engineering.

While modern costs of operating an automobile put the owner in the luxury class, he seems willing to pay the premium for the freedom and flexibility the automobile gives him, Dr. Moyer said.

Even so, the modern car owner is better off than in 1903 when the cost of operating a relatively new car of ordinary class ranged from 10 cents to 20 cents per mile.

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METEOROLOGY

Machines Quick in Forecasting Weather

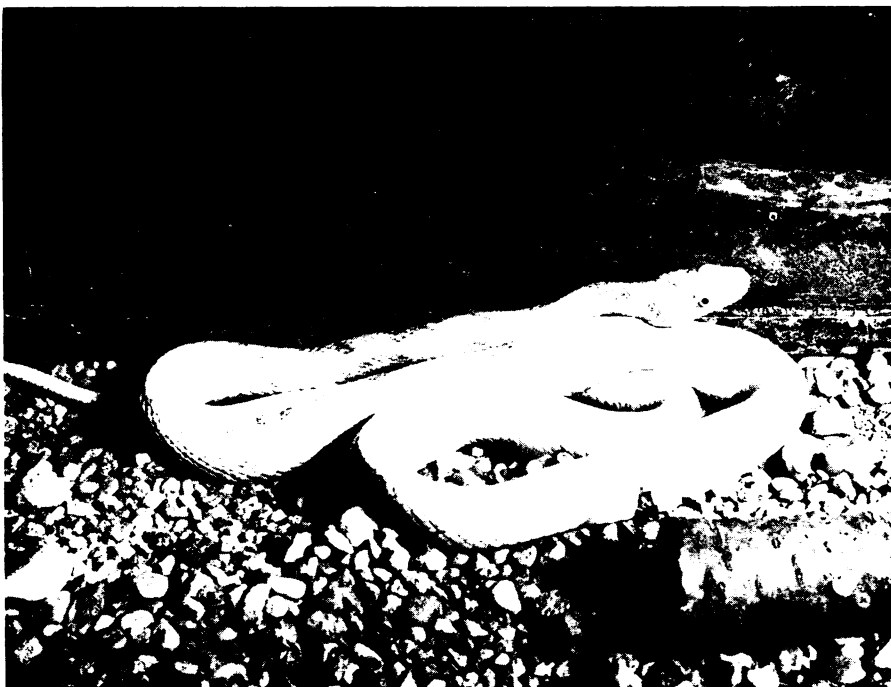
► MACHINES CAN work as quickly as man in preparing weather forecasts.

This discovery was made by scientists at the Air Force Cambridge Research Center, who have been experimenting with 24-hour forecasts of the weather situation at about 19,000 feet over the United States. This is a necessary piece of information in forecasting local weather on the ground.

The scientists, working on theoretical developments of Maj. Philip D. Thompson, started at midnight. In 11½ hours, they had fed their figures into business machines and come up with an analysis and a forecast. With practice, this could be done in seven hours, about the time it takes to do a subjective forecast without the aid of machines.

The experiment is described by Louis Berkofsky in the *Bulletin of the American Meteorological Society* (Sept.).

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ALBINO BLACK SNAKE—Although its coloration is all white, this albino snake is really a black snake. It can be seen at the National Zoological Park in Washington.