

3 times; Number 2, 0 times; Number 3, 1156 times.

Rat number 3 continued as the worker; the others became completely parasitic.

Science News Letter, September 23, 1939

Birth Injuries Hurt Mind

MENTAL disease in youth and early adult life in many cases is apparently due to brain injuries at birth, Dr. Barney Katz, of the University of Southern California, told the meeting.

Comparing the family histories of 100 mental patients suffering with dementia praecox (schizophrenia) and progressive mental deterioration with those of 100 persons in good mental and physical health, Dr. Katz found that difficulties of birth were much more common among the mentally diseased.

Science News Letter, September 23, 1939

Nervous Breakdown Causes

NOISE and imprisonment, as well as the dilemma of trying to make a correct decision when there is no right way, may be contributing causes to nervous breakdowns in rats. And what is true for rats may be true for men.

Dr. Norman R. F. Maier, University of Michigan psychologist, last winter gained recognition and \$1,000 prize for causing rats to have nervous breakdowns. An animal was forced to take some action when there was no right way to do it. The driving force used in his experiments with rats was a jet of air.

Now Dr. Maier finds the noise of the air jet is a contributing factor in the breakdown. When the rats were placed on a small table and keys were jingled, the noise produced violent activity in 85%; the sound of an air jet caused it in 64%. In some cases convulsions accompanied the extreme activity.

Confinement is also a factor. When the rats were placed during the experiment in a closed wooden box, they were affected more than in a transparent box which, Dr. Maier said, is psychologically less confining.

But Dr. Maier sticks to his original conclusion that only the theory that breakdown occurs when a conflict is faced from which there is no escape but in which it is necessary to take action, is broad enough to cover all the cases.

Science News Letter, September 23, 1939

Insects prey on other insects for food only, says an entomologist; there is no enmity between different species.



RARE MINERAL "SEES DOUBLE"

Seeing double, usually associated with holiday libations, is possible any time if you have a crystal of Iceland Spar. This photograph shows what it will do to a page of the *SCIENCE NEWS LETTER* (enlarged). The mineral is widely used in microscopic work.

MEDICINE

Brain Operations Restore Control of Muscles

BRAIN surgery now promises to conquer two distressing kinds of ailments that have hitherto largely defied medical science.

The conditions are: 1. The tremors or palsy of fingers and toes which occurs both in paralysis agitans and as a sequel, sometimes a very late sequel of encephalitis; 2. The uncontrollability of muscles seen in the ailment called athetosis, which frequently is due to injury of the brain at birth.

A brain operation so successful that it enabled five patients suffering from this last condition to seek employment was reported by Dr. Tracy J. Putnam, of Boston City Hospital and Harvard Medical School, at the meeting of the New Hampshire Medical Society in Boston. Dr. Putnam made an incision in the spinal cord severing one of the motor tracts in these five patients and in 33 other patients suffering from the same distressing condition of lack of muscle control. There has been a mortality of less than 4% in recent cases, and the

survivors are well pleased with the result of the operation, even though for some of them the advance consisted of no more than being able to lie quietly in bed or sit up in a chair which was impossible before the operation. The improvement, even if not complete, is permanent.

Treatment of this condition by various drugs has been unsuccessful. Most of these patients had already gone through a slow and tedious process of muscle education and training with little benefit.

Drugs such as hyoscin and some of the new sleeping medicines of the barbiturate group have helped patients with tremors or palsy, Dr. Putnam reports. Cutting the motor tract on one side of the spinal cord or excising its point of origin in the brain helped six out of seven of Dr. Putnam's patients.

Science News Letter, September 23, 1939

A new waterproof finish for cloth is applied in the factory and lasts as long as the goods does.