

MEDICINE

Mice Give Hope New Drug Good for Leprosy

► HOPE THAT patients with Hansen's disease, or leprosy, may be helped by the new anti-TB drug, isoniazid, is strengthened by mouse experiments reported by Drs. Gladys L. Hobby, John H. Hanks, Mary A. Donikian and Tobey Backerman of Chas. Pfizer and Co., Brooklyn, N. Y., and the Leonard Wood Memorial Bacteriological Laboratory at Harvard Medical School.

The mice were infected with the mouse leprosy germ, *Mycobacterium leprae murium*, and then several drugs were tested. Isoniazid alone and a combination of isoniazid with streptomycin were found to be more effective than other drugs tested and, in fact, the most effective drugs against mouse and rat leprosy now available.

The other drugs tested, in order of effectiveness, included iproniazid, which is the isopropyl derivative of isoniazid, streptomycin and viomycin.

Isoniazid has already been used in pilot studies in treatment of human patients with this disease. The studies have not gone on long enough, however, for proof of the value of the drug although some reports have been encouraging.

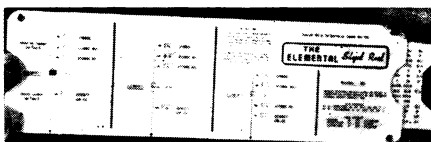
The reason for trying isoniazid in Hansen's disease is that the germs which cause TB are somewhat like the germs that cause Hansen's disease. What stops one might stop the other. Sulfones, originally developed at anti-TB drugs, have proved the best so far for Hansen's disease in humans, although unsuccessful against tuberculosis.

Hansen's disease, or leprosy, is an extremely difficult disease for experimental work because no method of growing the human leprosy germ in artificial media or in animals has yet been discovered for this chronic disease, because of lack of precise information concerning the relationship between murine and human leprosy, and, in testing drugs, because of the lack of "sufficiently rapid and reliable drug-screening procedures" for this and other diseases.

Details of the experiments with the murine leprosy are reported in the American Trudeau Society's *American Review of Tuberculosis* (Feb.).

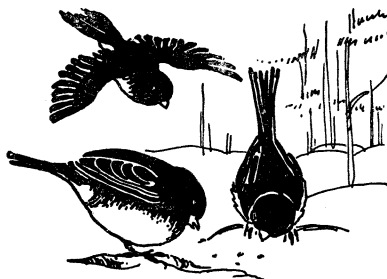
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Junco

► JUNCO SOUNDS like the name of one of the newer international organizations affiliated with the United Nations. It is not, but it would not be inappropriate if it were.

For the slate-colored junco, or snowbird, is an international creature, which in its own person is a fitting symbol of the amity that exists on both sides of the American-Canadian border that it flits across as the whims of the season dictate.

Juncos are small birds, somewhat resembling sparrows. In fact, sparrows and juncos belong to the same family of birds, the fringillidae. The junco can be distinguished by its dark slate-gray color, marked with white on the abdomen and white outer tail feathers. The bill is whitish or pinkish, contrasting with the dark head.

PSYCHOLOGY

Psychology in Skills

► THE BASEBALL pitcher who refuses to touch a softball may actually be applying some sound psychology.

A study of the factors involved in learning skills shows that while using a high-level skill, such as professional baseball players need, a small amount of practice in an associated skill, such as playing softball, might hinder performance.

Dr. Gregory A. Kimble, professor of psychology at Duke University, was able to determine this in an experiment using the pursuit-rotor, a device well known to psychologists. It consists of a turntable 12 inches in diameter with a silver target the size of a dime set flush with its surface, four and one-half inches from the center. The subject of this experiment is told to keep the tip of a small bent rod on this silver target as the turntable rotates at about 60 revolutions a minute.

In this experiment, the subject performed

The junco spends its summers in the north, breeding in a broad belt extending from Alaska to Labrador down to a line just south of the Canadian border. In winter it moves south, and is found from New England to the Gulf of Mexico.

The name snowbird has been applied to the junco, apparently because it is one of the few birds that are seen when snow is on the ground. It feeds on weed seeds for the most part, and is frequently to be seen in weed patches which stand above the snow level.

Although the junco moves generally southward to escape the biting severity of the northern winter, it is an extremely hardy bird. One ornithologist captured some juncos and instead of letting them migrate south, he kept them in open aviaries throughout a Canadian winter.

He supplied them with food which they would have had difficulty finding on their own. The temperatures dropped as low as 52 degrees below zero and rarely rose above zero at any time. Nonetheless, the birds survived. The birds did seem to fatigue quickly and, on one occasion during a blizzard, their feet became encased in ice. They suffered no visible ill effects from this.

These were artificial conditions, of course. Left to their own devices the juncos would have lit out for less arduous climes long before the first blizzard struck. And if in their wintering ground, the weather should become too blustery, juncos know enough to take cover and not stand around until they become icebound.

According to Audubon, the great early American authority on birds, juncos burrow into haystacks when they sense an approaching storm. They must seek shelter of some sort, because they do survive, and each year they flit back and forth across the border in vast numbers.

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first with his right hand, then with the left hand, and then with his right hand again. If the practice with both hands came when the subject was still unskilled at the task, his performance picked up. Later on, after the subject had attained a fairly high level of skill in keeping the pointer on the target, left-hand practice interfered with performance.

Dr. Kimble interpreted these results to mean that although the beginner may learn a skill better with practice in related skills, this practice may later harm him when he has become very good at that skill. This would be true in such sports as tennis and badminton, football and touchball, as well as baseball and softball.

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United States petroleum production may be greater than the nation's consumption this year for the first time since 1938.