

PUBLIC HEALTH

Methods to Stop Rabies

First sign of dread disease is a change in dog's disposition. Vaccine that gives two years' protection to dogs now developed.

► A CRY of "mad fox" has replaced the cry of "mad dog" that comes each summer during the so-called dog days. But scientists have long known and taught that rabies is a year round disease and that spring is the season when it occurs most frequently.

Rabies, also sometimes called hydrophobia, meaning fear of water, is caused by a virus which is in the saliva of the rabid, or "mad," dog. When the dog bites a human or another dog, the saliva plus the rabies virus gets into the wound. The virus travels along the nerves to the spinal cord and brain and back along other nerves to the salivary glands, where it gets into the saliva and is ready to attack another victim.

By the time a dog with rabies has reached the stage where he is frothing at the mouth, running crazily about, snapping aimlessly yet viciously at anyone and anything that comes in his way, his appearance and actions will rouse the cry of "mad dog," and warn most people away. Meanwhile, however, before these clear symptoms of rabies have appeared, he may have bitten other dogs and people and given them his frightful sickness. It is vitally important, therefore, that rabies in a dog be recognized at the very earliest possible moment.

The first sign of rabies in a dog is a change in his disposition. He may have a troubled, distracted look in his eyes. He seems to lose his normal desire to recognize and be friendly with other dogs or with people. Dogs which have previously been somewhat aloof may, on the other hand, become unusually friendly, affectionate and gentle.

If you are a dog owner or if you have made friends with dogs in your neighborhood or along your way to work or school, you should know these early symptoms of rabies, both for your own protection and so that you can make sure your dog pet or friend does not become responsible for giving this horrible disease to other dogs or people.

Rabies could be eradicated from the United States, health authorities believe. The methods would be: 1. impounding and destroying of all stray dogs; 2. anti-rabies vaccination of all dogs; 3. registration or licensing of all dogs, which could be combined with the vaccination each year; 4. adequate trapping of foxes or other wild animals, in cooperation with wildlife conservation authorities, when rabies breaks out among these animals.

Strict quarantine on all dogs when there

is a rabies outbreak in a community is also advised.

A vaccine that will protect dogs for two years and probably longer, maybe even for life, has been developed. Tests with it to see how long it will protect are still under way. Research scientists are also working on an anti-serum to be used either with or in place of the classic Pasteur vaccine treatment for a person or dog bitten by a rabid animal. Present disadvantages of the vaccine treatment of humans are the need for 14 to 21 injections and the sometimes serious reactions to it.

Science News Letter, March 29, 1952

MEDICINE

Chemical Treats Arthritis With Fewer Harmful Effects

► A REMEDY even better than cortisone for treatment of arthritis exists in a chemical called free Compound F. Like cortisone, Compound F is a hormone from the adrenal



PILOT EJECTOR—The pilot's seat belt is automatically unfastened five seconds after he and the seat are ejected from a fast plane. Here the belt unfastener is demonstrated.

glands. It was discovered more than 20 years ago, but has been in such short supply that trials of it could not be made until recently, when methods of producing more of this drug were developed.

Tests of this drug in 15 patients show that it may be 50% more potent than cortisone in relieving arthritis and that it may have less tendency than cortisone to produce undesirable side effects. In some cases, the toxic effects of cortisone disappeared when free Compound F was given.

These tests are reported by Drs. Edward W. Boland and Nathan E. Headley of Los Angeles in the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION (March 22).

Science News Letter, March 29, 1952

METALLURGY

Hard Metals Shaped Without Cutting Tool

► EXTREMELY HARD metals which create problems in the machine shop now can be shaped more easily by an electro-mechanical process which tears particles from the workpiece without the use of a cutting tool.

M. F. Judkins of the Firth Sterling Steel & Carbide Corp., McKeesport, Pa., reported to the American Society of Tool Engineers meeting in Chicago that accuracies up to one-thousandth of an inch could be obtained with the new process. Holes can be drilled and threaded by the same method, he said.

Actually, electrodes which produce powerful electrical forces do the work. Mr. Judkins predicted cutting rates of several inches a minute could be obtained eventually with the new process.

Science News Letter, March 29, 1952

AERONAUTICS

Jet Pilot Ejection Now Fully Automatic

► EJECTING A pilot from a faster-than-sound flying jet plane in trouble will soon be fully automatic. Latest addition to the ejection method is an automatic safety-belt unfastener which operates five seconds after the pilot and his seat have been shot 60 feet out of the plane.

The new feature was demonstrated at the meeting of the Aero Medical Society in Washington by the Aero Medical Equipment Laboratory of the Naval Air Material Center, Philadelphia.

When the pilot and his seat are shot out of the plane, a cord attached to the floor is pulled. This sets off a small charge of powder with a five-second burning time. When the powder explodes, it automatically opens the belt. To be ejected from the plane, freed of his seat and in a position for the parachute to open at the required altitude, all the pilot has to do is pull a protective curtain down over his face. This starts the whole operation.

Science News Letter, March 29, 1952