

GARDENING

Garden Tools To Aid Blind

Strange tools help the blind to have gardens of their own. Wires guide rake and keep weeder safe distance from plants; rod keeps hoe from digging too deep.

► SPADES with bars to keep them from biting too deeply into the soil, hoes with clips so that wire can be used as a guide in keeping rows straight, and weeders with side extensions so they will not get too close to the crop—this strange assortment of garden tools enables blind men and women to have gardens of their own.

So that those who have lost their sight can prepare the soil, plant the seed in straight rows, get rid of weeds themselves and harvest the tomatoes, beans, lettuce, radishes and beets, special tools have been devised by Hugh Findlay of Hatch Lake, Eaton, N. Y. Formerly director of landscape architecture at Columbia University, Mr. Findlay has been devoting the last few years to teaching gardening to the blind.

Rows in these gardens, often ten or twenty feet long, are kept straight by attaching the tools to wire pulled very

taut between tee-rods forced into the ground at both ends of each row. One ankle is allowed to rub against the wire while raking or hoeing, to keep the tool from going off-center.

The depth to which the spade or hoe can sink into the soil may be changed by readjusting the gaging rod. If corn is to be planted in hills, the bar will be adjusted in the lower holes of the spade. The third set of holes, farthest from the tip of the spade, are used in planting potatoes. For late or midseason corn or beans, the bar will be fixed in the second set of holes in the hoe so the furrow may be drawn deeper.

While the plants are still young, a Norcross weeder can be used by adjusting the side extension, that runs along the wire, so the blades will not come too close to the plants. Weeds may also be kept under control by running a scuffle hoe along a guide wire placed between the rows. The blind gardener in this case straddles the wire as he works.

These special tools were first tried out by Armand Michaud of the Perkins Institute and Massachusetts School for the Blind, Watertown, Mass., who, though blind, already had done some gardening. A number of war-blind at the Naval Hospital in Philadelphia are being taught to use these special contraptions, already in use in 28 different states, Cuba, Canada and China. Within a few minutes a blind person can memorize these tools.

Identify Soil by Feel

The right kind of soil for a garden, Dr. Findlay believes, can be identified by feel. Sometimes a sightless person can tell soil by its weight or smell, but it is always best to test the soil by placing a little in the palm of one hand and touching it carefully with the fingertips of the other.

The top and bottom of a bulb can be identified easily by its shape, and, in planting, the distance between the bulbs can be determined by measuring with the feet.

In sowing small garden seed, a small quantity is placed in the hand and with the aid of the thumb, the seed is worked

between the second and third knuckle. By keeping the wire over the furrow, when the tips of the fingers slowly follow the wire, the seed can be dropped in the proper place.

A hobby such as gardening keeps blind people out of doors, overcoming their natural tendency to stay in the house. Fascinating in all its phases, from first planting, through blooming with its wonderful fragrance, and the final triumph of a harvested crop, Mr. Findlay feels gardening is peculiarly adapted to the specialized senses and needs of the blind.

Science News Letter, August 10, 1946

MEDICINE

Rabbit Fever Pneumonia Cured by Streptomycin

► THE DRAMATIC recovery, thanks to streptomycin, of a patient dying of rabbit fever pneumonia, is reported by Drs. Richard B. Cohen and Richard Lasser of the Jewish Hospital of Brooklyn, N. Y., in the *Journal of the American Medical Association* (Aug. 3).

Neither penicillin nor sulfadiazine helped the patient. He was thought at first to be suffering from an atypical pneumonia caused by some virus. But as he got worse and because his job as stevedore might have brought him in contact with infected rodents, tests for plague and tularemia, or rabbit fever, were made.

The test for rabbit fever was positive and then it was learned from his relatives that he had gone rabbit hunting about three days before he got sick, though he had not skinned or eaten the rabbit he killed.

Within 48 hours after streptomycin treatment was started his fever dropped from 104 degrees Fahrenheit to 100 degrees, he felt much better and was on the road to recovery.

Science News Letter, August 10, 1946

AERONAUTICS

Military Planes Now Fly Knots and Nautical Miles

► YOU WILL have to brush up on your knots and nautical miles if you want to keep up with the Army and Navy planes in the future.

The knot is now the standard aeronautical unit of speed for both services, and the nautical mile is the corresponding unit of distance. This is the result of



GARDEN FOR BLIND—Distance from plants to the blade of the Norcross weeder is being measured to be sure the plants will not be injured. Note clip attached to the wire and winged screws for adjusting the distance of the weeder from the plants.

an agreement recently made.

From now on you will say that a military plane has a speed of so many knots. You will never say that it has a speed of so many knots an hour, because "knot" includes the "per hour." One knot is a speed of a nautical mile in one hour. And a nautical mile, the mariner's mile, is about 800 feet greater than the ordinary mile.

The nautical mile is supposed to be one-sixtieth of a degree of the earth's equator. American and English seamen call it 6,080 feet. In other countries it is slightly different, varying up to 8,087 feet.

The nautical mile is about 1.15 times as long as the familiar legal mile of

5,280 feet. Figures giving the speed of a plane in knots are therefore smaller than those giving it in ordinary miles.

When, for instance, the Army states in the future that one of its bombers is capable of 300 knots, it means, in the language to which we are accustomed, about 345 miles per hour. And the commercial transport that averages 300 miles an hour, in Army-Navy language does about 260 knots.

Air-minded people these days are looking forward to a plane that will travel at supersonic speeds; that is, speeds faster than sound travels. At sea level this is around 760 miles an hour. Supersonic speeds in "nautical" language will be those above 660 knots.

Science News Letter, August 10, 1946

MEDICINE

Protecting Against Polio

► **LATEST ADVICE** to parents anxious to protect their children from infantile paralysis: Have all cavities in the children's teeth sealed off by the dentist, so that the polio virus cannot invade the child's body through the decay-exposed nerves in teeth.

This advice comes in "an urgent plea to parents, physicians and dentists" made by Dr. Hans H. Reese, professor of neurology at the University of Wisconsin, and Dr. John G. Frisch, practicing dentist of Madison, Wis.

These scientists urge that the cavities or decayed teeth be treated early in the summer, before the polio season starts, but even now with infantile paralysis on the increase in many states, it may not be too late to take advantage of this protective measure.

The plea of the Madison scientists is based on findings showing that: 1. the polio virus can invade the body through pulp, nerves and tiny tubes in the dentin of teeth exposed by decay or cavities; 2. exposed tooth pulps occur some two and one-half or more times as often in young polio patients as in persons the same age who have not had the disease; and 3. more polio occurs in communities where the water supply is low in fluorine than where it contains enough of this chemical to prevent tooth decay in those who drink it while their teeth are developing.

Details of the findings are reported in the scientific journal, *Dental Digest* (July).

The Madison scientists confirm the

findings of two other scientists who previously reported that polio occurred two and one-half or more times as often in young polio patients as non-polios of the same age in the same communities. These scientists, Drs. Myron S. Aisenberg and Thomas C. Grubb, of the University of Maryland School of Dentistry, also reported that monkeys developed infantile paralysis after the virus had been dropped into the exposed pulps of their teeth.

Exposed tooth pulp, resulting from decay, is only one invasion route for the polio virus, both groups of scientists point out.

Science News Letter, August 10, 1946

MEDICINE

Seasickness Drug Overdose Fatal

► **THE FATAL** poisoning of a prisoner by a new seasickness drug taken while aboard a ship returning from England, has led the Army to warn against overdose with it.

This man and other prisoners dosed themselves with the drug for the "intoxicating" effect.

The drug, known as "Motion Sickness Preventive, Army Development Type," will soon be available to the public for air, train, sea, and car sickness.

As few as six tablets can poison a man, it appears from the report of Col. F. H. Foucar, Capt. B. S. Gordon and Capt. S. Kaye, in the *Journal of the American Medical Association* (July 20).

The patient who died is believed from post mortem tests to have taken at least 30 tablets, but another prisoner was admitted to the hospital appearing to be "intoxicated" after taking six tablets.

The new motion sickness preventive contains sodium amytal, atropine sulfate and scopolamine hydrobromide. The sodium amytal is believed to have caused death in the case of fatal overdose, though the medical officers point out that the question of a possible synergism between it and the belladonna alkaloids cannot be ruled out.

Science News Letter, August 10, 1946

CHEMISTRY

Easily Made Metal-Protecting Coat Available

► **AMERICAN** manufacturers can now make use of a German method of making a temporary coating to protect metal parts during shipment. The formula is available from the U. S. Government.

It is largely a mixture of wool fat, chinawood oil, natural resin and white spirits. It is applied with an ordinary paint brush, dries rapidly, and can be removed by washing with gasoline.

German chemists claim that it is effective against rust, corrosion, and salt water, and that it will not melt in the direct rays of the hot sun. A report, made by the U. S. Naval Technical Mission in Europe, which gives directions for preparing the mixture, can be obtained from the Office of Technical Services, U. S. Department of Commerce.

Science News Letter, August 10, 1946

RADIO

Science Club 10,000 Is CBS Radio Feature

► **THE 10,000th** science club of the nation to affiliate with Science Clubs of America, the Science Service organization, will be described in the "Adventures in Science" radio program over many of the stations of the Columbia Broadcasting System next Saturday, Aug. 17. The program honors the large growth of this science youth organization.

James F. Sears, sponsor of the Bloom Radio Club of Bloom Township High School, Chicago Heights, Ill., will be guest of Watson Davis, director of Science Service, on the program.

The program will be heard at 1:45 p.m. EST, 2:45 p.m. EDST, 12:45 p.m. CST.

Science News Letter, August 10, 1946