

## Fight Against Arthritis

(Continued from p. 371)

enheit. With fingers curled, the hand and wrist should be dipped in and out of the mixture, waiting a few seconds to let the paraffin harden slightly.

The dipping should be repeated eight or ten times until a thick glove of solidified paraffin is formed. To prevent the paraffin glove from cracking, the fingers should not be moved.

The "gloved" hand should be wrapped in wax paper and then in a bath towel, held in place by rubber bands for 20 minutes. The paraffin, when peeled off, can be returned to the double boiler for repeated use.

Massage helps in some cases, but may cause harm if not done properly. It should

not be done directly over acutely inflamed arthritic joints. The family doctor should decide whether or not massage would be beneficial. But mechanical vibrators or massage machines are not recommended.

Exercise, the most important treatment to prevent crippling, must be prescribed by the doctor. A number of non-tiring exercises with illustrations are described in the PHS pamphlet.

Splinting or using a cast may be prescribed by the physician.

Good fitting shoes are essential. They should be prescribed.

Canes or crutches may help.

Self-help devices can be ordered from the Arthritis Self-Help Office, Institute of Physical Medicine and Rehabilitation, 400 East 34th St., New York, N. Y.

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Measles Immunization in Washington, D.C.

Dr. Yoshiomi Okuno of Osaka University, Osaka, Japan, reported cultivation of the Toyoshima strain of measles virus in the birth sac cavity of developing chick embryos.

When given by nasal spray to children, the virus produced mild, measles-like symptoms eight to nine days after vaccination with striking antibody responses, Dr. Okuno said.

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### PUBLIC HEALTH

## Names and Addresses of Syphilis Cases Required

► THE NAMES and addresses of all persons with syphilis are now required by the Pennsylvania Department of Health.

The 89th annual meeting of the American Public Health Association in Detroit was told that some 24,792 persons have been followed up because of this change in reporting. Numbers were formerly used.

Dr. Charles L. Wilbar Jr., secretary of health, Commonwealth of Pennsylvania, said this has proved to be an effective method of case finding, and names of individuals are kept in strictest confidence. Only 15 out of 8,000 physicians have refused to give any information.

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### TECHNOLOGY

## Model Used to Teach How Shock Waves Form

See Front Cover

► A CONE MODEL in a supersonic tunnel is now being used to teach students how shock waves are formed.

The tunnel and a schlieren apparatus (an optical system making shock waves visible) demonstrate the density variation of the air around the twenty degree cone cylinder. The bow shock waves formed around the cylinder at Mach 3 (three times the speed of sound) can be seen on this week's cover.

The device, designed by the Aerolab Supply Co., Hyattsville, Md., is being used at Yale University, Northwestern University and the Illinois Institute of Technology. A similar model is being used at the University of Maryland.

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## Questions

**ANTHROPOLOGY**—How many years ago did Shanidar man live in a warm climate? p. 363.

**MEDICINE**—Which age group of women most frequently have arthritis? p. 370.

**SPACE**—How much will the Nimbus satellite weigh? p. 366.

Photographs: Cover, Fremont Davis; p. 363, U. S. Navy; p. 365, National Aeronautics and Space Administration; p. 367, UNESCO/Gerda Bohm; p. 370, National Institutes of Health; p. 376, Fotorite Corp.

### INVENTION

## Patents of the Week

► A GUARD to protect hose during shoe shines has been patented.

Nicola Francone of Chicago, Ill., developed the device especially for shoe-shine establishments so that workers could avoid getting polish on any customer's hose.

The hose guard, which received patent No. 3,008,146, is made of sheet material such as paperboard, kraft paper or even plastic, that could be easily disposed of after a single use or a limited number of uses.

An attachment that converts an electric razor into a hair trimming device won patent No. 3,008,233 for Jacob E. Waggoner of Charles City, Iowa. It causes the hair to enter the relatively narrow interior slots of the electric razor's regular shaving head, where it is cut.

For next spring's legion of lawn cutters, George I. Wood Jr. of Des Moines, Iowa, has found a method for preventing grass deposits from accumulating on the underside of a rotary mower hood. He was awarded patent No. 3,008,283 and assigned the rights to Western Tool and Stamping Co., also of Des Moines.

An extra plate is installed inside the hood near the top, and is rotated at high speed, thus forcibly ejecting the grass. Mr. Wood said he had found woven glass filaments or plastic to be the best material for the extra plate.

An Australian has come to the rescue of children suffering from infantile eczema by inventing a method, patent No. 3,008,466, for partially restricting their arms. Grace Johnstone Adam of the Royal Alexander Hospital for Children near Sydney said the usual method of treating acute eczema is to bandage and tie the child down, with arms and legs extended, on a bed, to prevent him from scratching himself.

Her device consists of perforated flexible material laced together so that partial movement of the arms is possible.

A carrier, with a detachable cabinet section, for automobile tops won patent No. 3,008,784 for Almon Allard of Wilmington,

Mass. It includes a platform with a number of storage elements arranged about its margins and enclosing a central storage well. One or more of the marginal storage elements may be detached from the platform to provide access to the well and to make the contents of the removable section more readily available.

A thermoelectric water cooler for bubble-type fountains won patent No. 3,008,299 for Addison C. Sheckler of Cato, N.Y., who assigned rights to Carrier Corporation, Syracuse, N.Y.

Conventional water coolers, Mr. Sheckler claims, require frequent maintenance of the refrigeration system, are cumbersome in size and a source of noise. By using thermoelectric elements, which have no moving parts, the problems of noise and maintenance are substantially eliminated. Mr. Sheckler improved the efficiency of thermoelectric cooling by directing the inlet water and cooling water in opposite paths to achieve the least possible temperature change across the thermocouples.

A method and apparatus for reproducing and displaying seismic records won patent No. 3,008,792 for William H. Cox of Beaumont, Texas, who assigned rights to Sun Oil Co., Philadelphia.

The conventional reproduction of seismic records, side-by-side traces in an oscillograph, is hard to interpret, particularly in determining the precise time of the occurrence of reflections, Mr. Cox said. Using his invention, the signals are converted to yield photographically or otherwise variable density traces that take the form of variable density dots.

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### IMMUNOLOGY

## Nasal Spray Vaccination Reported by Japanese

► MEASLES VACCINATION by nasal spray was reported by a Japanese scientist at the First International Conference on