MEDICINE

Skin Cancers Removed

➤ A CHEMICAL-SURGICAL method of removing skin cancers is announced by Dr. Frederic E. Mohs of the University of Wisconsin Medical School in the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION (Oct. 23).

The method is said to remove the cancers "safely and completely" and to be "especially valuable for highly malignant or highly invasive lesions which fail to respond to other treatments."

A 96.2% five-year-cure rate in 291 patients with a slow-growing form of skin cancer, and an 84.4% five-year-cure rate in 136 patients with a more serious form of skin cancer are reported.

The method consists in applying a paste which kills a layer of cancer tissue without breaking it up or destroying the appearance of the cancer cells. The dead layer of tissue is cut off and the cancer is removed by paste and surgery, layer by layer. Each layer of tissue is carefully examined under the microscope.

Clinics with special facilities and technical assistants trained in the technique are essential for obtaining best results with the method, Dr. Mohs points out.

This need for special facilities and special training in the technique of the method should be emphasized as a warning to the general public that the results reported by Dr. Mohs should not be expected from any salves or pastes sold and advertised as cancer cures.

Science News Letter, October 30, 1948

POPULATION

Boom in 1947 Baby Births Attributed to Prosperity

➤ DEMOBILIZATION and the prosperity which followed it are responsible for the record-breaking birth rate last year, P. K. Whelpton of the Scripps Foundation for Research in Population has explained in a report of the U. S. National Office of Vital Statistics.

The baby boom produced approximately 3,900,000 births in 1947, Mr. Whelpton estimates. Of these, 1,435,000 were first births to native white women. These figures do not mean that more women are entering motherhood, he says. About two-thirds of the mothers had at least one child already.

Nor does it indicate a trend toward larger families, he adds. The rates for seventh and subsequent births in 1947 were lower than those for any previous year.

Mr. Whelpton used the birth statistics for upstate New York in his calculations. The national figures for last year will not be tabulated until next winter or spring.

Science News Letter, October 30, 1948

CHEMISTRY

Flameproofing Fabrics in Home Is Simple Process

➤ FLAMEPROOFING household fabrics, particularly those of cotton, linen and rayon, can be effectively accomplished by any housewife, the National Bureau of Standards states in a recent bulletin in the interests of fire prevention.

The flameproofing formula suggested by the Bureau, one that has long been used with considerable success, contains a solution of one pound of crystalline borax and 13 ounces of boric acid in two gallons of water. The water is heated to allow the constituents to dissolve and mix. When cooled to room temperature the solution is ready for use.

Any washable fabric that is dry and clean can then be immersed in it. For fabrics that wet easily, dipping is all that is required. For heavy fabrics, a soaking from 10 to 15 minutes may be necessary to insure proper impregnation.

The article should then be wrung by hand and, upon drying, ironed at a lower temperature than ordinarily used. This treatment does not affect the color of most dyes, does not encourage mildew, and is non-poisonous. It is not permanent, however, and must be renewed after each washing.

Because of the many disastrous fires to which draperies, clothing, canvas and other textiles have added much, scientists have long worked diligently to perfect fabric flameproofing. Cotton and rayon articles present the chief problem because they are made up of vegetable fibers which, upon heating, decompose into readily combustible gases. Wool, hair, and other fibers of animal origin present a less serious problem because their protein constituents liberate non-flammable gases. Synthetic fibers, such as nylon, are usually less flammable, although they melt at relatively lower temperatures than other textiles.

Science News Letter, October 30, 1948

MEDICINE

Weapons Against Plague Successful in Field

➤ SCIENTIFIC WEAPONS against bubonic plague, developed during the past half-dozen years, have now proved themselves in the field to the extent that plague is no longer an epidemic threat.

This was agreed on by two of the world's top authorities on plague, Dr. R. Pollitzer, of the World Health Organization, plague fighter in the field in China since 1921; and Dr. Karl Meyer, director of the University of California's Hooper Foundation and leader in laboratory development of the newest weapons. Dr. Pollitzer said a combination of techniques is responsible for plague's defeat.

One, DDT can temporarily suppress plague over a wide area by killing off fleas as 1080 kills rats. Two, sulfadiazine proved effective in preventing plague among persons exposed to it. Three, rabbit-immune sera and especially streptomycin cure victims who have contracted the plague. The latter two techniques were developed by Dr. Meyer at the Hooper Foundation during the past few years.

Dr. Pollitzer, stating plague is now down in China, made the first report of results of a small outbreak of seven cases in Fukien province last summer. Good results were obtained through treatment with streptomycin. Twenty-six persons exposed to these cases were treated with sulfadiazine; not one of them came down. Ordinarily, doctors would expect over half to be stricken.

Science News Letter, October 30, 1948