

INVENTION

# Current U.S. Patents

**Radioactive strontium and cesium can be removed from milk by a new process if fallout from atomic bombs produces a health hazard—By Ann Ewing**

► A METHOD by which the radioactive strontium and cesium in milk can be removed if fallout from atomic bombs makes it a health hazard has been patented.

The method, which received patent 3,207,607, was originated by Dr. Bert B. Migicovsky, now assistant director-general of the research branch of Canada's Department of Agriculture. After modification and development by an international team of scientists, it was tested commercially by the Producers Creamery Company in Lebanon, Mo.

This process removes 90% of the radioactive strontium.

The Missouri equipment, which processes 100,000 pounds of milk in an eight-hour period, is now being modified to remove radioactive iodine as well as radiostrontium and radiocesium from milk. The system being used at Lebanon was developed jointly by the U.S. Department of Agriculture, the Department of Health, Education, and Welfare and the Atomic Energy Commission.

The treatment consists of pumping slightly acidified milk through ion exchange resins that have been precharged with mineral salts similar in composition to the salts found in milk.

Radioactive strontium and cesium in the milk are exchanged with the anions or cations on the charged resins and removed subsequently by washing with salt solution. After the milk's acidity is neutralized, it is pasteurized and homogenized as usual.

The milk which results from this has an acceptable flavor and meets bacteriological standards.

Dr. Migicovsky told SCIENCE SERVICE that the method for acidifying the milk has been granted a separate patent, to be assigned to the U.S. Government. He assigned his rights to patent 3,207,607 to the Canadian Government.

## Suction Device for Midwives

A simple suction device that midwives can use earned patent 3,207,160 for Dr. Ockert S. Heyns of the Medical School, Johannesburg, Transvaal, Republic of South Africa.

The forceps or suction cups often used for aiding complicated births are so potentially dangerous that most countries forbid their use by anyone other than an obstetrician.

The instrument devised by Dr. Heyns is portable and can be used easily by unskilled or semi-skilled persons. It consists of a chamber whose rim totally encloses the pelvic opening, resting on the coccyx and the pubic arch.

A pump reduces the air pressure within the chamber, which aids in birth. The

chamber's shape, which fits women of varying sizes, is the key to helping parturition.

## Other Interesting Patents

A tamper-proof container for hypodermic syringes that may be opened easily for removal of one syringe without disturbing the sterile packaging earned patent 3,207,302 for Norman L. Hobbs of Rosemont, Pa., who assigned rights to American Home Products Corporation, New York.

A piece of furniture to be used in space vehicles, a combined bed, chair, desk and lounge, was awarded patent 3,206,775. George W. Filson of Xenia, Ohio, assigned patent rights to the Government through the Secretary of the Air Force.

A method of making diamond particles by subjecting graphite or amorphous carbon to the high temperature and pressure resulting from spark discharges between electrodes earned patent 3,207,582 for Kiyoshi Inoue of Tokyo, Japan.

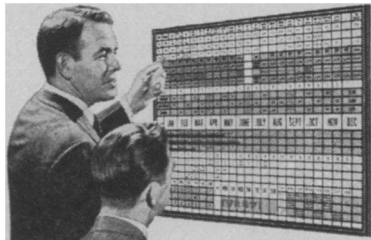
A necktie with a hidden pocket in which money or other valuables can be hidden, earned patent 3,206,765 for Sol Sherman of New York, who devised the zippered pocket for the reverse side of a four-in-hand tie.

• Science News Letter, 88:239 October 9, 1965

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