



**CONVERGING BEAM THERAPY**—This artist's conception shows how the unique 50-gram radium treatment would work. The beams from 25 two-gram capsules converge on the patient's right kidney. The radium is so placed that the whole radiation amount is focused on the tumor site.

is greatly wanted. Many blood tests for this purpose have been developed. So far none has stood up as practical for mass screening of large numbers of people, the way chest X-ray pictures can be used to detect unsuspected tuberculosis by mass screening. But these chest X-ray screenings, started as part of the fight against tuberculosis, are actually helping to find unsuspected cancer, too. Of course in these cases it is cancer of the lung that is detected.

Science News Letter, April 5, 1952

**Next Week: New Recruits Aid Old Guard to Halt Cancer.**

#### METEOROLOGY

### Find Raindrop Size On Mt. Washington Peak

➤ A DIFFERENT kind of poll is being taken in New Hampshire, this one with the help of a lady's nylon stocking, some oil and confectioners' sugar.

Meteorologists stationed atop Mount Washington, Gorham, N. H., are using this bizarre equipment to measure the size of raindrops. It is important to know raindrop and snowflake sizes to evaluate theoretically the strength of the echoes from radar returned by sheets of rain or snow.

The stockings are slightly oiled and then dusted with confectioners' sugar. When raindrops fall on this screen they cut neat holes in the oil-sugar mixture which consistently are 20% to 25% larger than the diameters of the raindrops making them.

Science News Letter, April 5, 1952

#### MEDICINE

## Cancer Pain Attacked

➤ PAIN, GREAT fear of cancer victims, is being attacked along with efforts to find remedies for the various kinds of cancer.

Dr. Stanley Cobb, neuropathologist at the Massachusetts General Hospital, Boston, recently discussed the psychological aspects of cancer and what having cancer does to a patient's mental and emotional outlook.

Fear of pain from cancer sometimes even delays early diagnosis of the dread disease.

The medical profession now has a battery of methods for combating pain in the cancer victim. Drugs, nerve and brain operations, alcohol injections, hypnosis and psychology are used.

Newest drug is Dromoran, more powerful and longer acting than morphine. It is almost a synthetic morphine. It can cause drug addiction, like morphine, and therefore is kept under control of the Federal narcotics act.

Another synthetic drug, hailed as the best of all back in 1948, is methadon. One advantage it has over the opiates is that it does not produce a false sense of well-being, or euphoria.

A wash of radioactive gold produces relief in certain kinds of cancer. When cancer spreads to the sac encasing the lungs, the sac becomes pimpled with many little new cancers. Enormous amounts of fluid form as a result. A wash of radioactive gold sloshing around between the lungs

#### MEDICINE

### Beams From 50 Grams of Radium Converge on Cancer

➤ A UNIQUE 50-gram radium treatment unit for cancer patients, one of two in the entire world, is going into operation at Roosevelt Hospital in New York.

The unit works on a new principle called converging-beam radium therapy. The 50 grams of radium are divided into 25 two-gram capsules of radium in the form of an insoluble sulfate salt. The 25 beams converge to give the patient increased effective radiation in deep-seated cancers with a minimum of skin damage as the gamma rays of the radium pass through the patient's body.

The structure for the unit was designed by Dr. Gioacchino Failla, physicist of Columbia University College of Physicians and Surgeons. Dr. Douglas Quick is director of the Roosevelt Hospital's new underground Henry Harrington Janeway Clinic where patients will be treated with the new unit.

The world's only other 50-gram radium unit is in the Institute of Cancer in Louvain, Belgium. The radium for the American unit has been loaned to Roosevelt Hospital by the Union Miniere du Haut Katanga of Brussels.

Science News Letter, April 5, 1952

and the sac kills many of these little cancers, thus reducing the amounts of fluid.

Metapon is still another of the pain-relieving drugs. Like morphine, patients develop a tolerance to it, so it must be used judiciously.

When fear is eliminated, the pain is less. Methods used to teach mothers not to fear childbirth are being tried on cancer patients with some success.

The operation known as lobotomy, where the surgeon cuts the nerve connections with the front part of the brain, sometimes relieves the patient of worries about his pain. He still feels the pain, but it doesn't bother him any more.

Injecting alcohol into the nerves which carry the pain sensations from the cancer areas to the brain has helped in some cases. Also cutting the same nerves has been tried.

Science News Letter, April 5, 1952

#### INVENTION

### Combine Pajama and Crib Sheet for Child

➤ A CHILD'S pajama and crib sheet have been combined into one unit. The inventor is Bessie Jane Auer, Ossining, N. Y., and she received patent number 2,589,596. An object of the invention is to provide complete covering at all times, regardless of the position the child assumes.

Science News Letter, April 5, 1952