

## MEDICINE

## Silver Stain Speeds Detection of Cancer

► **CANCER** OF the uterus can be detected faster with a silver staining technique developed by Dr. Gardner Riley of the University of Michigan.

Dr. Riley uses silver carbonate, heretofore used to stain nerve cell elements. This stain shows up all cells in fluids placed under the microscope. It concentrates in the nuclei of cells, thus helping to show abnormal cells such as cancer cells.

It has been used to examine cells in vaginal fluid from 4,533 women. In 11, the silver-stained cells pointed to the probability of unsuspected cancer or of suspected cancer before a diagnosis was made by microscopic examination of the tissue itself.

The silver staining method is relatively simple and fast, but the stain is a delicate one requiring careful handling or it will make blobs that are no good for diagnosis. Dr. Riley's research is supported by the American Cancer Society.

Science News Letter, February 6, 1954

## SURGERY

## New Back Operation Saves Time and Money

► **A NEW** operation for aching backs which gets patients out of the hospital in one week and back to work in two months may replace one in which the patient had to be in the hospital or a semi-invalid in a cast or brace for six months.

The operation was reported by Drs. Gerald G. Gill and Hugh L. White of San Francisco and Dr. John G. Manning of Pasadena, Calif., at the meeting of the American Academy of Orthopaedic Surgery in Chicago.

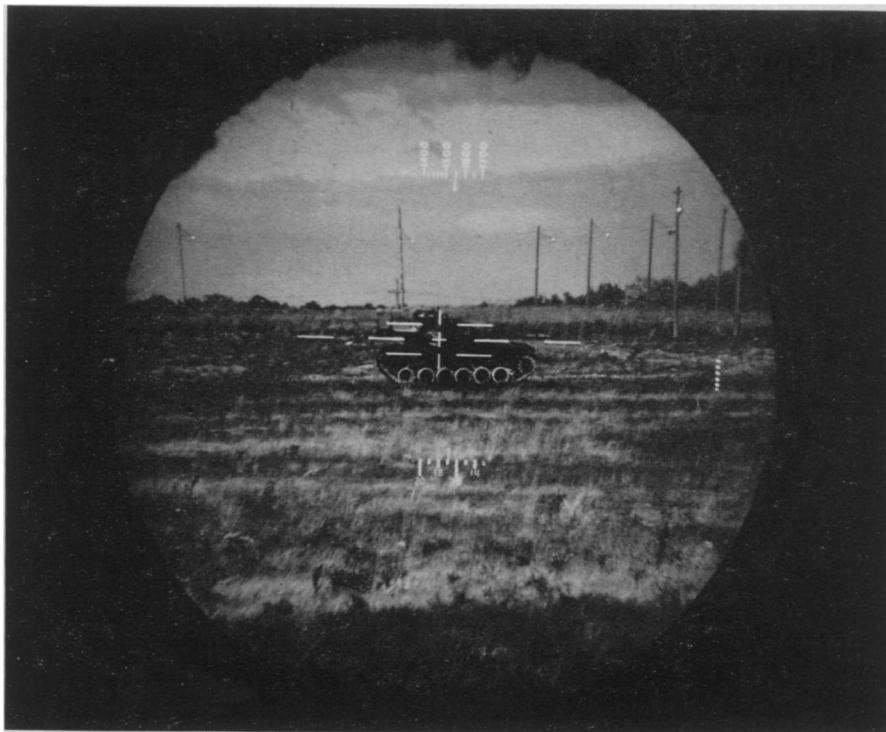
They use it for patients with the relatively common condition called spondylolisthesis, which is caused when the fifth lumbar vertebra at the base of the spine becomes displaced and slips forward, resulting in painful compression of nerve roots. The patient's first symptoms are an aching back and tenderness in the lower part of the back.

In the past, the patient had to undergo what is commonly known as a fusion operation to get relief.

In the new operation all of the bony structures pressing on the nerve roots and ligaments are removed. It is particularly useful in those patients who have been considered too old for the fusion type of treatment.

"While the length of time of follow-up in our patients has been relatively short, the longest case being three and one-half years, the results thus far have been most encouraging," the doctors said. "From the standpoint of the patient and, particularly, from the saving of his time and expense, there is a great difference when comparing the two methods of treatment."

Science News Letter, February 6, 1954



**ON TARGET**—Taken through the eyepiece of the Army's new range finder, this picture shows what a U. S. tank commander sees as he draws a bead on his target, an M-47 medium tank. The new range finder automatically feeds precise distance of the target and proper ammunition setting into the tank's 90-mm gun as soon as the target is lined up.

## OCEANOGRAPHY

## Money for Beachcombers

► **BEACHCOMBERS ALERT!** There's money floating on the waves.

Oceanographer Dean F. Bumpus has set out 800 drift bottles worth one dollar apiece to finders south of Cape Hatteras, N. C.

All a finder has to do is send the post card in each bottle with the date and his location to the Woods Hole Oceanographic Institution, Woods Hole, Mass.

These are not the only "valuable" seafaring bottles. In a study of oil pollution on the high seas, British planes have been dropping plastic bottles in the sea off the coast of England.

The cards in the British bottles are worth about 35 cents in U. S. currency to the finder who fills them out.

For those hardy lovers of the sea who prefer a map to cash, the Hydrographic Office of the U. S. Navy sends out a pilot chart for every one of its returned cards.

The bottles are not a subsidy to beachcombers. They represent attempts to get more information about ocean currents and verify present charts of currents. Ship captains use the charts in planning the best courses to avoid sailing against a current.

William G. Watt, director of the division of maritime security of the Hydrographic

Office in Washington, said that the Navy receives an average of a card a day from all over the world.

The Navy makes available "bottle papers," small cards to go in bottles, to all ship captains. The captains then fill out the card and throw it overboard in a bottle whenever they feel like it.

Each captain gives the date, location and name of the ship when the bottle is set out. On the reverse side in six languages, the finder is asked to give his name, location and date and send the card to the Navy.

Mr. Watt said the Navy has no idea how many cards and bottles are set out each year, but the number is probably much larger than the number of cards returned.

Down on the North Carolina coast, Roger H. Taylor of Kitty Hawk has made a pretty good thing out of bottles. He once found 61 of the Woods Hole bottles in two days—a good cash crop for any beachcomber.

Woods Hole bottles set out off the Carolinas have sometimes drifted out to the Gulf Stream. Many months later they have been found off Ireland and France.

Science News Letter, February 6, 1954