Uranus' newly-discovered moon was found on photographic plates. It shows up on a photograph after two or three minutes exposure, reports Dr. Gerard Kuiper, director of the observatory.

The newest moon found in our solar system was spotted, via photographs, during the period when the observatory was making studies of possible life on Mars. It was first located on Feb. 15, and the discovery has since been confirmed by more recent photographs.

Tiny compared with the earth's moon, the new satellite of Uranus is probably not over 300 miles in diameter, Dr. Kuiper estimates. It is well within the orbit of four previously-known moons of Uranus and is an estimated 75,000 miles from the planet. The moon completes its path around Uranus in about 30 hours.

Science News Letter, March 20, 1948

MEDICINE

Mass Detection of Cancer

A new simple and quick blood test for this disease has been discovered which may be used as a mass screening agent such as X-rays are for unsuspected tuberculosis.

➤ A NEW blood test for detecting unsuspected cancer was announced by Drs. Maurice M. Black, Herman Bolker and Israel S. Kleiner of the Brooklyn Cancer Institute and New York Hospital at the Atlantic City meeting of the American Association for Cancer Research.

The test is so simple and quick that, if further study confirms its value, it could be used as a mass screening agent to detect cancer in the population something as X-rays are now used in large population groups to detect unsuspected tuberculosis.

The test is made by putting a small amount of the person's blood plasma in a glass tube, diluting it with distilled water and taking a reading of the light transmitted through the plasma with a photoelectric colorimeter. The tube of diluted plasma is then put in vigorously boiling water for 10 seconds and a second light transmission reading is made. The heat coagulates the plasma and the difference between heated and unheated plasma is measured in terms of heat coagulation.

Blood plasma from cancer patients coagulates much faster when heated than blood plasma from healthy persons or from persons sick with diseases other than cancer. The coagulation measure, Dr. Black and associates believe, can therefore be used to detect the presence of cancer.

The test developed from studies the scientists were making with another blood test for cancer reported at the International Cancer Congress last fall. (*See SNL,* Sept. 13.) In this earlier test, it was found that blood plasma from cancer patients quickly decolorized a dye, methylene blue.

Both tests have now been tried on several hundred persons, some healthy, some cancer patients and some sick with other diseases. The two tests can be made in 15 minutes and when combined have an accuracy of more than 95% in showing the presence of cancer.

The new test depends on the presence in the blood of fibrinogen, chemical which is involved in blood clotting. But some other as yet unknown factors are believed also to be involved in the changes in heat coagulation of plasma from cancer patients.

The new test, Dr. Black said, is "particularly interesting from the prognostic standpoint." It gives an objective means of following the effects of treatment.

Inhibit Enzymes in Cancer

➤ A CHEMICAL adaptation treatment that has been helping patients with leukemia, Hodgkin's disease and cancer was reported by the same group. Its chief importance lies in the clues it gives to possible chemical solution of the cancer problem (*See SNL,* Sept. 20). The chemicals used are enzyme inhibitors. They interfere with or block enzyme chemicals needed by the cancer cells. But the cancer cells soon adapt themselves to life without one of these enzymes. At this point, the doctors do some adapting. They adapt the treatment by giving different chemicals, which stop a different set of enzymes needed by the cancer cells. When the cancer cells, in turn, adapt to this situation, the doctors switch chemicals again.

Science News Letter, March 20, 1948

INVENTION

New Flaming Method Rids Cottonseed of Lint

➤ PRICE C. McLemore of Montgomery, Ala., already well known as the originator of the flame-cultivation method for killing weeds, offers a new flaming method for ridding cottonseed of lint. It consists essentially of wetting the seed with a highly flammable liquid like gasoline or alcohol, then setting fire to it. The resulting flash flame effectively removes the lint, yet does not affect the germination of the seed. Patent 2,437,397 has been issued on this invention.

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