

MEDICINE

British Anti-Cancer Serum Aids Human Patients

"Encouraging Results" Reported When Injection Is Used On 25 Volunteers Previously Considered Doomed

"ENCOURAGING RESULTS" in the treatment of 25 human cases of cancer with an anti-cancer serum were reported by Dr. Thomas Lumsden of the London Hospital at the annual meeting of the British Empire Cancer Campaign.

Twenty-five victims of this dread disease volunteered to undergo the serum treatment which Dr. Lumsden has been working on for more than seven years. They were suffering from cancers which had recurred after the original tumors had been treated by surgery or radium. Their condition was diagnosed as hopeless by physicians.

Each of these volunteers had some of the serum injected into the main mass of his cancer or into the artery leading to it. Dr. Lumsden reported that the results in these cases were so encouraging as to justify "intensive pursuit of the method," although he considers the work still in the experimental stage.

The chief difficulties with the treatment are achieving distribution of the

serum throughout the tumor and keeping it localized in the tumor area long enough for it to produce results.

In these human cases, Dr. Lumsden used only one fraction of the anti-serum which he has been developing. This fraction, called the euglobulin fraction, gives a solution of anticancer bodies ten times as strong as the anti-serum as a whole. In other words, it is ten times as potent a weapon for treating the disease.

The serum not only cured spontaneous cancers in mice but prevented the recurrence of such cancers in seventy-five per cent. of the animals. Some of these mice are now living a year after the injection of the anti-serum. The fact that one year of life for mice corresponds roughly to thirty years of life for man gives an idea of the effectiveness of this method of treatment. Five years of freedom from the disease is considered the criterion for cure of cancer in man.

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MINING

Bureau of Mines to Lose Fourth of Personnel

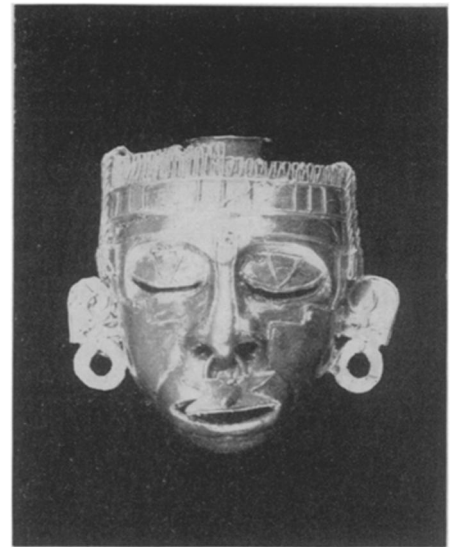
ANOTHER SCIENTIFIC bureau of the Federal Government suffered on July 15 when economy edict cut off practically one-fourth of the personnel in the U. S. Bureau of Mines.

About 190 to 200 employees received notice that they would be separated from the service on July 15 provided the Civil Service Commission approves. In case the Commission fails to act the employees will be placed upon indefinite furlough. This means that from 25 to 30 per cent. of the present staff of the Bureau is being dismissed from the Government service. About 70 of those fired are scientific or technical person-

nel, it was said. Although the separations are effective on July 15, it was stated at the Civil Service Commission that the list had not been received by them until that date.

The dismissals were made necessary by a drastic reduction in funds. Of the \$1,514,300 appropriated by Congress for the Bureau of Mines, \$414,300 has been withheld by the Secretary of Commerce, who allotted but \$1,100,000 to the Bureau for the coming fiscal year. This is a 27.3 per cent. reduction in funds.

All field offices and stations of the Bureau are affected by this drastic cut.



GOLDEN MASK

This gold mask from the treasure tomb of Monte Alban represents the most gruesome of Mexican gods, Xipe, god of the flayed. In ancient Indian rites to the honor of this god, a woman was beheaded and her skin became the dress worn by a ritual dancer. The mask is among the Monte Alban jewels exhibited at the Chicago Century of Progress Exposition.

Some are being abolished entirely; all will have the scope of their activities curtailed.

The health division of the Bureau is being abolished, and the officers who have been assigned there from the Public Health Service are being returned to the Service. The helium division is being merged with the petroleum and natural gas division.

The offices of the Bureau have been quietly moved from the new Commerce Department building to the building of the Interior Department. Officials of the Bureau said in answer to inquiry that they have not been informed of any actual transfer of the Bureau to the Interior Department, however. In the office of Secretary Roper it was said that the transfer is expected soon.

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ARCHAEOLOGY

Mexican Treasure-Jewels Displayed In Chicago

THE SPLENDOR of Mexico's departed princes is added to the other wonders of Chicago's Century of Progress Exposition with the opening of the special treasure car containing the famous Monte Alban jewels. The

treasure, one of the most outstanding archaeological finds of the world, has been permitted to come to the United States by special act of the Mexican government.

Thousands of persons have been inquiring for the Mexican presidential train, of which the treasure car is a part and as soon as it was opened they thronged through its aisle marvelling at the beautiful and intricate prehistoric Mexican workmanship, expressed in gold, jade, turquoise, coral, pearls and red shell. The many scores of pieces are displayed in twenty-one large glass cases.

Accompanying the exhibit is Dr. Alfonso Caso, explorer of the famous tomb in Oaxaca where this treasure was found associated with the skeletons of nine Indians of an unknown nation. Only the richness and superb workmanship of the jewels certifies to the high position of their wearers in church and state of ancient Mexico.

With Dr. Caso are Senora Caso and Senor Daniel de la Borbolla. The latter, fluent in English and well acquainted with American ways, is Dr. Caso's "contact" with the American public, since Dr. Caso speaks little English and has not been in this country before, although he has traveled in Europe.

Another valued member of the party is Martin Bazin, a native of the high Mixteca. Broad-shouldered, rather short, lithe and silent in his movements, he is the jewels' watchdog. The guards in and around the car, and the detectives who doubtless mingle with the crowd, would seem to be superfluous when he is around.

The value of the Monte Alban treasure is a paradox. It simply has no price, from the artistic and archaeological point of view. Yet if a gang of thieves should conceivably break through all the safeguards with which the car has been surrounded since it left Mexico City and steal the entire lot, they would find that they had but small reward for their pains. All the gold used in all the ornaments sums up to an estimated weight of but eight pounds. Some of the pearls are large—one weighs twenty-three carats—but they are all pierced and so of no value for modern jewelry.

The real value of the jewels lies in their beauty and their mysterious antiquity.

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MEDICINE

Cancer Susceptibility Depends on Single Gene

JUST ONE GENE in the germ cells from which you grew—an almost infinitesimal thing about the size of one molecule—determined whether or not you are susceptible to cancer.

For it is that tiny, single unit among the many complex factors of heredity that makes the difference between cancer susceptibility and cancer insusceptibility, Maud Slye of the Sprague Memorial Institute and the University of Chicago has found.

The scientific research from which Miss Slye draws this conclusion is reported in the *American Journal of Cancer*. Her studies on cancer inheritance have been carried on for twenty-three years and involve over 116,000 autopsies.

Because of the difficulty of obtaining records of many human generations, Miss Slye has made her studies on generations of mice, which develop cancer just as men and women do.

Heredity alone is not the cause of cancer, Miss Slye points out. But through heredity a susceptible soil is prepared, she finds.

"An external factor acting with in-

ternal factors upon a susceptible soil is probably the cause of cancer," she stated in her report.

Prolonged irritation may be an external factor. Internal factors may have to do with function or faulty function of the endocrine glands or with other physiological conditions.

Another fact brought out by Miss Slye's studies is that insusceptibility to cancer is a dominant factor, while susceptibility to cancer is what is known to students of genetics as a recessive. This means, according to Mendel's law, that if a cancer susceptible mates with an insusceptible, their offspring will inherit the dominant trait of insusceptibility. In the next generation, however, one-quarter of the offspring will show the recessive trait of susceptibility.

However, such perfect genetic ratios cannot be expected except as relatively rare occurrences, Miss Slye stated. In the case of cancer it is probabilities, not certainties, that are dealt with. Age and many other factors enter into the situation and may interfere with or obscure the genetic picture.

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ETHNOLOGY

Study of Croatans Reveals No Link with Lost Colony

THE ROMANTIC story that Sir Walter Raleigh's ill-fated colony on Roanoke Island survives today in the blood of the so-called Croatans has been dealt a new blow by science.

A study of these Croatans, 8,000 mixed whites and Indians who live mainly in Robeson County, North Carolina, has been made by Dr. John R. Swanton of the Smithsonian Institution. Dr. Swanton is an outstanding authority on Indians of the Southeastern states.

While labeling his conclusions tentative, Dr. Swanton says that the evidence strongly indicates that these mysterious North Carolinians belong predominantly to the Siouan racial stock. They have some white blood, but Dr. Swanton

finds no reason to believe that they have any connection with the lost colony established by Sir Walter Raleigh.

The Croatans have been a puzzle to census takers and other officials who have had to classify them. They have been recently called Cherokee Indians, and distant relatives of the Iroquois group. Dr. Swanton connects them most closely with the Cheraw Indians, a tribe of Sioux stock.

The name Croatan was given them through influence of Hamilton MacMillan of Fayetteville, North Carolina, in support of his hypothesis that they were descendants of the lost colonists. Croatan was the name of an island and