

MEDICINE

Isolate Live Cancer Virus

Freezing of cancer tissue has liberated a potent cancer virus which infects the chest tissue of mice, British scientists reported.

► ISOLATION of live cancer virus from infected mice was announced in the *BRITISH MEDICAL JOURNAL* (July 30).

The virus produces cancer only in the chest or mammary tissue. American scientists have shown that it can be transmitted through the milk of nursing mice to their young. However, the chemical oestrin had to be present to make the virus potent.

In these experiments, reported by Dr. Ida Mann of the Imperial Cancer Research Fund, London, the active virus was freed from the cancer tissue by freezing it to 110.2 degrees below zero Fahrenheit.

Injections of this liberated virus into male and female mice produced tumors only when injected into mammary tissue, Dr. Mann said. She pointed out that this was not a transplantation since the number of tumors increased the longer the tissue was frozen. Also, living tumor cells can be grafted on any part of the body and will grow while the virus infects only chest tissue.

The technique used was to mince the tumor tissue removed from cancer-infected mice and then store it in a deep freeze. Refrigeration destroys the tumor cells and liberates the virus. Dr. Mann accounts for this by stating that cold breaks down the inhibiting factor which holds the active virus in check. Moreover, the virus becomes more deadly the longer it is kept in the freezer during the first 48 hours.

Freezing has little effect on it after this time.

Dr. Mann, with the aid of William J. Dunn, was also able to produce breast cancer by drying the virus after it had been frozen and injecting it into the breast of male and female mice. This experiment was based on the work done by Dr. Mann's husband, Dr. W. E. Gye, director of the Fund.

American cancer authorities questioned in Washington said the evidence that English scientists have successfully isolated cancer virus is "not convincing."

The scientists asked not to be identified as they have not had a chance to fully evaluate the study. But they pointed out that freezing, the method used in the English experiments, has not been accepted in the past as proof of virus isolation.

Science News Letter, August 6, 1949

GENERAL SCIENCE

New Suits for Amputees

► ZIPPERS with large rings, buttons attached to a long stem, and pockets that are tacked down and entered at a slant are some of the new features which have been adopted in a special type of suit for amputees.

Dressing has been one of the big stumbling blocks to GI amputees, so the clothing

branch of the Air Materiel Command's Aero-Medical Laboratory at Wright Field, Dayton, O., designed the new suit at the request of the Veterans' Administration.

The new features are all skillfully concealed and the suits look exactly like the well-draped style at present in vogue. But for the amputee, the new suits have these additional advantages:

For arm amputees the suits have wide shoulders and fuller sleeves to conceal the artificial arm. To prevent wear and tear on the material, invisible reinforcement patches have been added at the elbow and leather reinforcement inside the cuffs. Pockets on the coat are lower and are entered at a slant. They are wide and shallow and taper at the bottom so that the contents fall into one place.

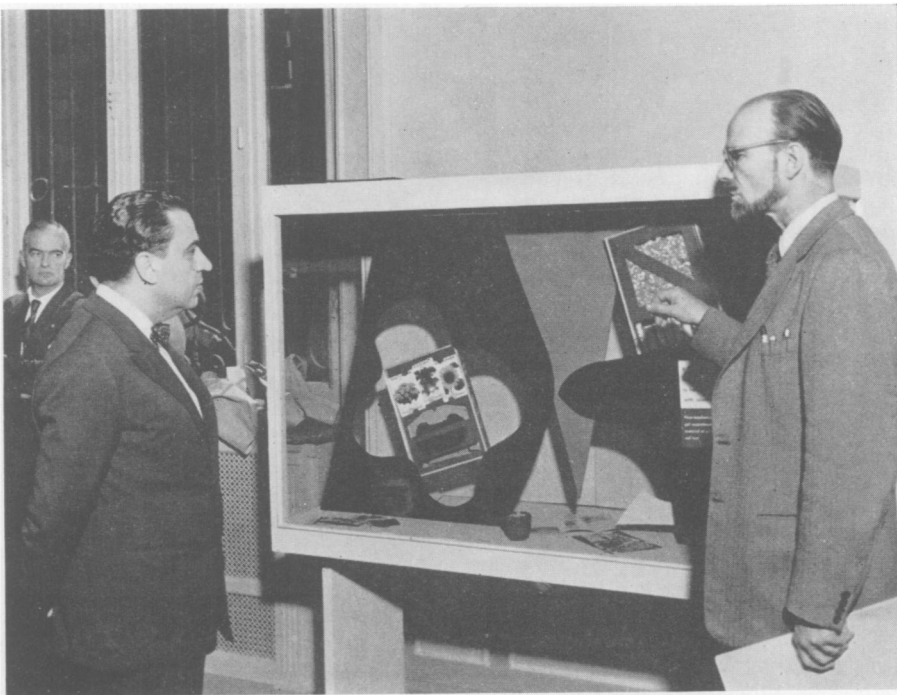
Buttons are on a long stem which can be closed with a specially designed button hook, or they can be attached only as trimming and the coat fastened with a modified slide fastener.

Trousers for leg amputees are fitted with an inner lining reinforcement extending from the pockets to below the knees. Studs are fastened to the inner waistband of the pants that fit sockets on shorts so that both can be removed in one operation.

Additional features include a loop inside cuffs so that sleeves will not be pushed up when an overcoat is put on, and the coat collar is tacked down to prevent it from turning up.

Patterns in the proper sizes for suits with these features can be obtained by amputees from the Veterans' Administration in Washington.

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SCIENCE KITS AT UNESCO—Experimental material on Soiless Gardening developed by Science Service is inspected at the Science Clubs International Exhibit, Paris, by Dr. Jaime Torres Bodet, director general of UNESCO (left), and Dr. Pierre Auger, head of UNESCO's Natural Sciences Department.

The mineral-containing tropical *manbarklak* wood is so refractory that it dulls ordinary woodworking tools within a few minutes.