

MEDICINE

Hopes Dim of KR as Cure

The Russian anti-cancer serum, tested on over 1,300 mice in this country, has given negative results after three years of experimentation.

➤ WHAT seems to be the death knell for hopes of a cancer cure from the Russian KR anti-cancer serum is sounded in a report to the journal, *Science* (June 4).

The report is by Drs. Theodore S. Hauschka and Margaret Blair Goodwin, of Lankenau Hospital Institute for Cancer Research, Philadelphia. Since March, 1945, these scientists have been testing, in over 1,300 mice, the Chagas' disease germ material reported by two Russian scientists to be effective against cancer.

"In view of the almost wholly negative outcome of our experiments and those of others the elusive endotoxin of *T. cruzi* does not at present appear to hold out much promise for cancer therapy," they state.

T. cruzi are the trypanosomes, or germs, of Chagas' disease. According to the Russian scientists, Dr. N. G. Klyueva and her husband, Dr. Gregory Roskin, blood of animals infected with these germs contains a poison, or endotoxin, which has anti-cancer action.

The Philadelphia scientists duplicated as closely as possible the Russian techniques in preparing and using the material. But it did not have any effect on the cancers in the mice and in one set of experiments more treated mice died than untreated ones.

Shortly before his death, the late Dr. W. M. Malisoff of New York reported that he had verified the Russian results and was going to use his material for treatment of patients. The Philadelphia scientists also repeated his work, using germs he furnished, and mice implanted with cancers from the same source he used. Dr. Hauschka and associates found that in more than half the mice these cancers grew smaller without treatment, so that Dr. Malisoff's results can be considered spontaneous regressions of the cancer and not the result of the treatment.

The work of the Philadelphia scientists has been done in a joint research program with the National Cancer Institute under a grant from the Institute. Since the scientists are convinced that the

Chagas' disease germs do not produce an anti-cancer material, they will stop further work along this line. But they will probably continue studies aimed at finding out why the Russian scientists thought they had anti-cancer material. There is a possibility that their results were due to chemicals from some other germs which might have been in the blood they used to prepare their endotoxin.

Science News Letter, June 12, 1948

BACTERIOLOGY

Penicillin Action Appears To Produce Electric Field

➤ PENICILLIN'S action against bacteria appears to create a charged electrical field in the area where it is going on.

Drs. Jean Dufrenoy and Robertson Pratt, of the University of California Medical Center in San Francisco, produce evidence that in the zone where the drug is inhibiting bacterial growth there is a positive charge, with a negative charge in the area where the growth-rate is enhanced. They have communicated their findings to the editor of the British scientific journal, *Nature* (May 29).

Science News Letter, June 12, 1948

AGRICULTURE

Scientific "Calf Starter" Will Add to Milk Supply

➤ SCIENTIFIC "calf starter" for dairymen is one way to increase the supply of milk and milk products for home use and for shipping, says Prof. W. T. Crandall of Cornell University's animal husbandry department.

Calf starters, or milk substitutes to be fed dry, are marketed by a number of feed companies as meal and pellets. Dairymen who use them in raising their calves can save 850 pounds of milk on each calf.

Prof. Crandall explained it this way. Only 350 pounds of whole milk is required for each calf with the calf-starter method, as compared with 1200 pounds

of whole milk when no milk substitute is used.

This saving can do much to increase the supply of market milk, he pointed out. The calves also make good gains in size and feeding capacity when they get good quality hay in addition.

Calves in the Cornell University herd have been raised satisfactorily with calf starter for years.

Science News Letter, June 12, 1948

TECHNOLOGY

New Weaving Machine Speeds Up Cloth Output

➤ A NEW high-speed weaving machine demonstrated in Cleveland has produced cloth at 2.66 times the output of conventional machines and may be able to weave some yarns at a faster rate.

The bulky wooden shuttle is replaced by a light-weight steel gripper shuttle, and steel guides are used to keep the shuttle from touching the warp yarn. The new precision machine is in the last stages of development by The Warner & Swasey Company of Cleveland. It is based on the original design of a Swiss firm, Sulzer Brothers of Winterthur.

Science News Letter, June 12, 1948



WEAVING MACHINE—This is a pilot model designed to produce cloth at 2.66 times the rate of conventional machines. Key figures in the program responsible for this development are (left to right): Dr. M. Pattison, Charles J. Stilwell and Myron S. Curtis of The Warner & Swasey Company.