

chilled or engaging in tiring sports and contests when there is an infantile paralysis epidemic.

Dr. Levinson infected monkeys with a standard strain of infantile paralysis virus which is known to produce a disease relatively low in mortality and with a fairly fixed degree of paralysis. The monkeys were divided into three groups. One group was left in cages and disturbed only to take temperatures. Another group was immersed in water up to the neck and restrained. The third group was placed in a tank of water at monkey body temperature and forced to swim until fatigued.

In the first group, seven of the 14 animals escaped the disease. None developed paralysis in all four limbs. One developed paralysis of one side of the body with paralysis of one limb on the opposite side. Five developed paralysis of the legs and lower part of the body, and one developed paralysis of but a single limb.

Of the 12 animals kept in water but not allowed to exercise, only two escaped the disease. Six developed paralysis in all four limbs, one developed paralysis of one side and the opposite limb, and three developed paralysis of the legs and lower part of the body.

Of the 15 forced to swim until tired, four escaped the disease, three developed paralysis in all four limbs, one developed a facial paralysis and seven developed paralysis of the legs and lower part of the body.

Not only fatigue from the exercise but the water immersion itself proved a harmful influence, Dr. Levinson said. This is possibly due to chilling and must and will be studied, he says, during the coming season.

Science News Letter, November 16, 1940

MEDICINE

Cancer-Causing Stuff Found In Non-Cancerous Livers

Persons Suffering from Cancer in Other Parts of Body Accumulate Substance in Liver; Understanding Aided

A CANCER-CAUSING substance (or substances) accumulates in the livers of patients suffering from cancers in other parts of their bodies. Suitably extracted and prepared, it is capable of producing new cancers when injected into mice.

Such is the announcement, possibly heralding an important new advance in the scientific understanding of cancer (and hence its ultimate control) by Dr. Paul E. Steiner of the University of Chicago. (*Science*, Nov. 8.)

The chemical nature of the substance is still unknown, but Dr. Steiner states that he is at work on this, as well as on the questions of its origin and its distribution within the body.

In one of his experiments, the Chicago researcher started with approximately two pounds of liver tissue, obtained from persons who had died of cancer in five different organs, but none of them involving the liver. After repeated extractions with a strong alkali, there was left a flaky, brown, ill-smelling residue. Dissolved in sesame oil and injected in small quantities into the bodies of mice, this produced typical cancerous tumors in a convincing number of cases.

Elaborate control experiments were performed, to eliminate the chance that

the new cancers might be arising from some other cause, but in every case the indications pointed back to the brown liver extract as the most probable cause. Further intensive research is now in progress.

Science News Letter, November 16, 1940

CHEMISTRY

Invention Tells Instant Chemical Action Occurs

THE so-called "magic eye" used in radio sets for tuning has a new use in the field of analytical chemistry. It shows the instant that all the chemical changes are completed in the process called "titration" and will be useful in analyzing the manganese content of steel, of the chromium in chrome-tanned leather.

Science News Letter, November 16, 1940

FOR SOMEONE'S FEAST

The series of photographs on this and the facing page shows the hatching of a baby turkey on the farm of Clifton Timmerman in Jefferson County, N. Y. The first view was taken 28 days after the egg was put into the incubator, just as the little bird pecked through the shell. The next view is 12 hours later. He gets his head out after another ten hours. Finally, another 24 hours later, he is all fluffed up and ready to scratch.

Science News Letter, November 16, 1940

