

## PATHOLOGY

## Filter-Passing Pathogen Found in Brains of Mice

A NEW disease-causing agent, seemingly related to the filter-passing viruses but different from them in some respects, has been isolated from the diseased brains of mice at the Rockefeller Institution for Medical Research by Dr. Albert B. Sabin. (*Science*, Aug. 26)

The new disease cause was found associated with a large one-celled parasitic animal form known as toxoplasma. Its discovery was partly the result of accident, when a culture of toxoplasma was unintentionally killed by freezing at the low temperature of 80 degrees below zero Centigrade. A fluid separated from the dead toxoplasma was still able to cause the disease, destroying nervous and other tissues when injected into them. It could be passed from mouse to mouse, like a filterable virus, but it does not spread at all by natural means.

Like the better known filterable viruses, it can pass through the pores of some types of fine-grained porcelain filters. Other, smaller-pored filters, however, will stop it. By these and other

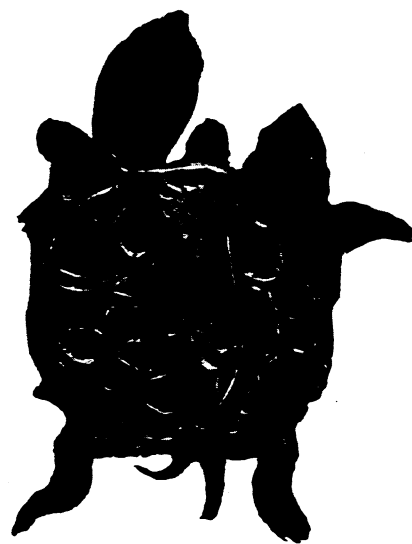
means the diameter of its "elementary bodies" was estimated at about the wavelength of the lower brackets of ultra-violet light.

By most ordinary microscopic methods it is invisible, but under special staining treatment some exceedingly minute ring-shaped or oval objects were detected under high magnification. There were also occasional larger rings, triangles, and quadrangles.

How this disease agent spreads is still a mystery. It cannot spread by itself or be carried by an insect, so far as can be told at present. It may imaginably be carried by the toxoplasma organism, but that only pushes the mystery back a step: How does the toxoplasma get about?

Any ultimate decision, Dr. Sabin states in conclusion, "must be postponed until further opportunity is given other investigators as well as ourselves to determine whether or not it may occur spontaneously in mice under conditions other than infection with toxoplasma."

*Science News Letter, September 10, 1938*



### SHELL-MATES

*Sharing the same house of shell, these "Siamesed" turtles have two independent heads and two tails, but only four legs. The stub projecting between the heads appears to represent a suppressed foreleg, or perhaps two of them.*

## BIOLOGY

## Siamese Twin Turtles Rare, But Interesting

SIAMESE twins are not confined to the human species by any manner of means. Turtles have 'em, too. They range in Siameseness all the way from being two animals joined at some point at the sides or fronts of their shells to just having two heads on one neck, with all the rest an apparently normal turtle body, ambling around as usual on four stubby legs.

The one shown in the accompanying illustration represents more or less of an intermediate condition. The little reptile had two heads and two tails, but any extra legs that may have got started on the joined-together sides are represented only by the stub between the heads, which is presumably the rudiment of one or both front legs.

Presumably there are two bodies, at least partly independent of each other, within the shell, for the shell structure is somewhat abnormal. It is not simply an unusually wide single shell, nor yet is it two shells joined together; it has features that suggest both conditions.

It will be noticed that the right-hand turtle twin is somewhat smaller than its

## GENERAL SCIENCE

## Scientist Has Plan to Salvage "Lost" Research

EVERY college and university in America should profit by the new proposals now being made to salvage "lost" research in the sciences. Out of the plan science, and America, should profit.

In many colleges of the nation heavy teaching burdens and lack of equipment prevent good research men from undertaking creative research which, by training, they are capable of doing. The work these men might do is "lost" research. Dr. J. C. Boyce, of Massachusetts Institute of Technology, has a plan which would salvage some of it.

Dr. Boyce proposes that the universities and larger colleges should "farm out," as it were, some of the many minor problems which arise as part of their general broad research programs. Many of these problems would seem to be trivial and uninteresting if tackled

singly but when pursued as part of a larger and broader research endeavor they take on new meaning and disclose significant findings.

Such problems would give a stimulus to men who now may form one-man departments in small colleges. They could be carried out in several ways: During summer school sessions or on sabbatical leave; or in the larger university laboratories where there is close geographical linkage; or finally, by the loan of research equipment to the smaller institution for the joint investigation. In general it would seem best to Dr. Boyce to have the experimental work carried out in the larger institution and the data examined and worked over in the smaller. Writing in the *Review of Scientific Instruments*, Dr. Boyce sees benefits to all by his plan.

*Science News Letter, September 10, 1938*