consists of anesthetizing the mosquitoes, removing them to a Syracuse watch glass, placing a drop of 70 per cent ethyl alcohol on each insect, filling the watch glass with distilled water, and finally transferring each mosquito to a drop of physiological saline on a microscope slide for dissection.

The method followed in testing new agents was to immerse the anesthetized mosquitoes in the test solutions and then transfer them, in a drop of the same material, to a slide for dissection.

Preliminary trials were made, employing in turn (1) isoamyl alcohol, (2) capryl alcohol, (3) ethyl acetate, and (4) Aerosol OT (dioctyl sodium sulfosuccinate). The first three compounds were discarded because, in the concentrations used, their immiscibility with water made detection of sporozoites difficult. Aerosol OT, however, seemed to possess the desired properties and was, therefore, examined further.

A 1:100 stock solution of Aerosol OT was made by adding 100 ml. of distilled water to 1 gram of Aerosol OT and allowing it to stand overnight at room temperature. Working solutions were made from this stock by subsequent dilution with physiological saline (0.85 per cent NaCl solution).

As a result of a series of observations using both *Aëdes aegypti* infected with *Plasmodium gallinaceum* and *Anopheles quadrimaculatus* infected with *P. vivax*, a 1:60 dilution with physiological saline of the 1:100 aqueous stock Aerosol OT solution (final dilution of Aerosol OT, 1:6,000) was ultimately found to be optimal.

In order to determine whether the 1:6,000 Aerosol OT solution has a deleterious effect on the sporozoites, the viability of sporozoites from mosquitoes wet and dissected in this solution was compared with that of sporozoites from mosquitoes wet in 70 per cent ethyl alcohol and dissected in saline. *A. aegypti* infected with *P. gallinaceum* were used. Twenty chicks, about one week old, were divided into 4 groups of 5 each. Each chick was injected subcutaneously with the infected salivary glands from one mosquito. The first group of 5 chicks (A) received the infected glands immediately after the glands were dissected in Aerosol OT. The second group (B) was inoculated with infected glands which had been dissected in Aerosol OT and allowed to remain in that medium at room temperature for 15 minutes. Two control groups (C and D) were inoculated with infected glands dissected in physiological saline. Chicks in group C received the glands immediately after dissection, while those in group D were inoculated with the glands which had remained in saline at room temperature for 15 minutes.

All of the chicks in group A showed infection on the 11th day; of those in group B, three showed infection on the 11th day, one on the 13th, and one on the 18th. All of the chicks in the control groups, C and D, with the exception of one which died early in the experiment, exhibited parasites on the 11th day.

In a similar experiment using a 1:4,000 dilution of Aerosol OT, the infections in the groups dissected in Aerosol OT were delayed, only three chicks in groups A and B exhibiting parasitemia by the 36th day. All of the chicks in the control groups showed infection by the 9th day.

These experiments establish the fact that a 1:6,000 dilution of Aerosol OT is a good wetting agent for mosquitoes; the insects can be dissected easily, and if sporozoites are present in the salivary glands, they are readily detected. However, it appears to have a deleterious effect on sporozoites of *P. gallinaceum*, and should be used with caution when the sporozoites of this or other species are to be used for producing infections.

A Quick Method for Filling Curved Glass Apparatus With Liquids

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The usual technique of filling certain types of glass apparatus with a liquid requires the tedious and time-consuming procedure of immersing the apparatus first in hot water and then in cold, the apparatus being connected to the liquid when it is placed in the cold water. This procedure must be repeated many times, and much difficulty is usually experienced in disposing of the last air bubble.

A simple and quick way to accomplish the task is to thread two small, flexible plastic tubes through the curved glass

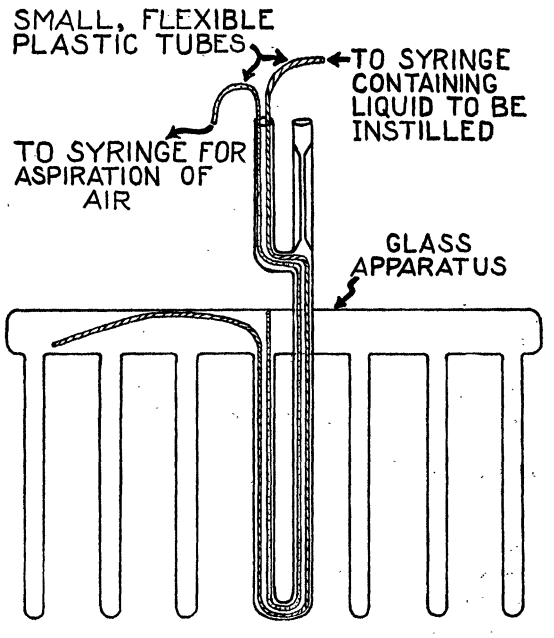

FIG. 1

tubing to the top of the apparatus (the plastic being nonsoluble in the liquid used). The tubing can be passed around bends more easily by repeated short thrusts associated with a twisting motion than by steady pressure. Each plastic tube is then connected to a needle of appropriate size, attached to a large syringe. One syringe is used for instillation of the liquid, and another for the concomitant aspiration of air. After filling the glass apparatus, the plastic tubes are carefully removed.

Using polyethylene tubing furnished by Suprenant Electrical Insulation Company, a glass apparatus designed for use as a thermoregulator was completely filled with toluene in a period of 10 minutes (Fig. 1).

The described technique is of especial value when the layering of solutions is necessary or volatile liquids are being used.