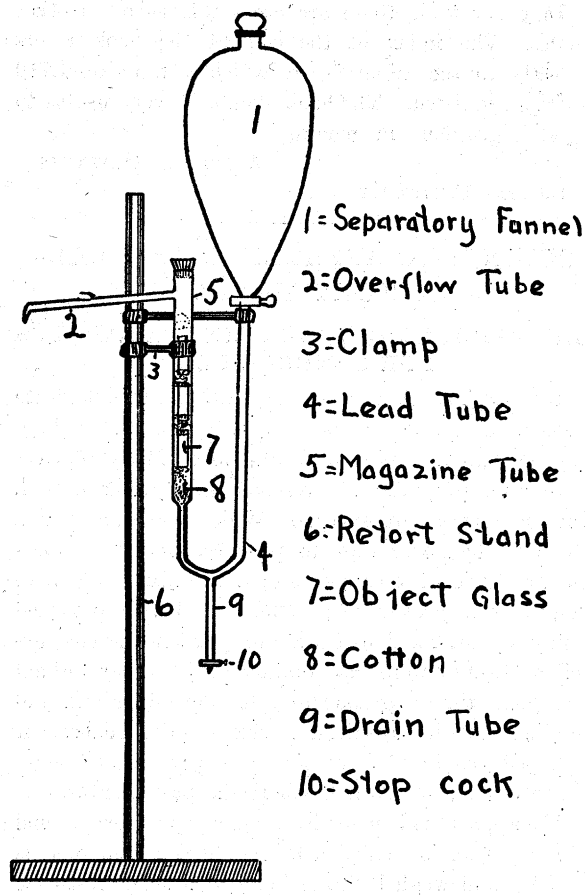

and filled with the appropriate fluid. A small piece of absorbent cotton was placed at the bottom of the magazine tube for the lower object-glass to rest on, and also to aid in gradual change in the strength of fluids. The object-glasses are made in the usual way, by selecting a piece of glass tubing a bit smaller in diameter than that of the magazine tube, and cutting into suitable lengths. The ends of the object-glasses were prepared in either of two ways. When the object-glasses were of small diameter, *i.e.*, to be used for very small objects, they were fitted with glass tube-stoppers which had a bit of bolting-cloth stretched across the inner open end. If the object-glasses were of larger diameter, *i.e.*, to be used for larger objects, the ends were heated and slightly flanged so that cheese-cloth, or cloth of suitable mesh, could be tied over the ends. Inside each object-glass a small bit of paper was placed with the record written in waterproof India ink.

The prepared object-glasses were then placed in the magazine tube, one on top of the other. With larger tissues the magazine tube was often filled with small cheesecloth bags, each bag containing the desired tissues and label. The stop-cock of the separatory funnel was then turned so that the fluid passed through the tissues, out the overflow tube and into a dish. The passage of fluid can be controlled so that any amount passes through—from a few cc per day to liters. The dilutions varied 10 per cent., from water to absolute alcohol, and the time of immersion in each dilution was the same. These two factors being constant, the dehydration rate was very gradual, with a minimum of shrinkage of the tissues.

The change of xylol for objects to be mounted in gums, dissolved in that medium or to be imbedded in paraffin, was made a gradual one by using similar methods. The strengths of xylol in absolute alcohol were 10, 25, 50, 75 and 100 per cent.

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IMMOBILIZATION OF PARAMECIUM

VARIOUS methods have been suggested from time to time for the immobilization of active ciliates for the purposes of study.

In some recent preliminary experiments on Paramecium with ultra-violet radiation it was observed that cultures of this infusorian, exposed in small embryological dishes filled to a depth of 0.5 cms, were in some cases immobilized to such an extent as to permit of detailed study of ciliary activity, vacuole contraction and formation and the general activities of the organism.

The apparatus employed was an ordinary quartz mercury vapor-lamp, DC voltage 90, current 3–4 amperes. The cultures were placed at a distance of 10 cms from the source of light and exposed for a period of eight minutes.

After one such exposure, the result seemed to offer possibilities for rapidly securing immobilization of Paramecium for class study, and so four other cultures were similarly treated with identical results. This simple procedure may prove a satisfactory means of immobilizing this much-used infusorian for class study.

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A BURETTE CLEANER

I HAVE used a burette cleaner for ten years, but have never seen the method explained in print. In school-work, where there are anywhere from one hundred to one thousand burettes in use during the year, often we find several which will not clean up with chromic acid. After trying chromic acid, which is oxidizing in nature, the burette will become clean very easily if the following method is used: