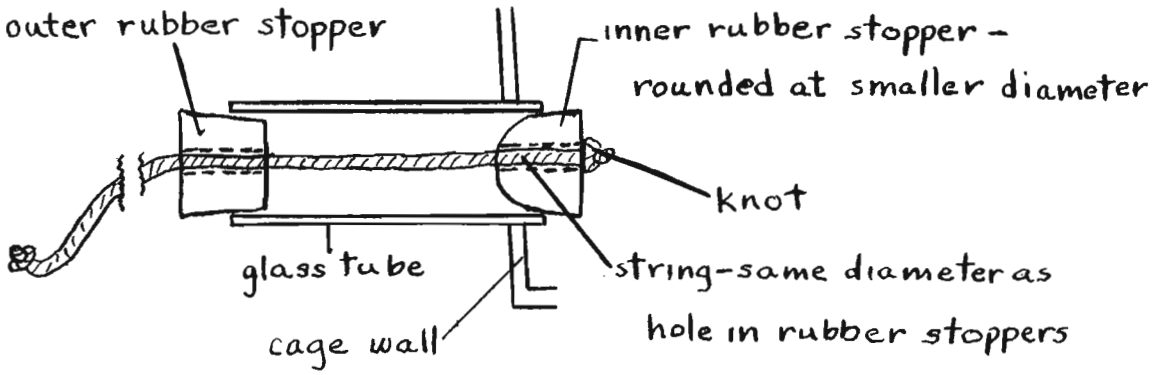
Wilson, J. University of California at Riverside. A sampler for collecting adults from unetherized population cages.

Sampling adults from Bennett population cages yields the same phenotype frequency as egg samples, is faster, and disturbs the population only to the extent of removing some adults for a few minutes. The simple apparatus and technique described below gives samples of 100-200 flies in less than a minute if the population is moderately dense.

Materials and Assembly: See diagram.




Method: The assembled sampler is inserted in the cage as in the above diagram. The outer rubber stopper is withdrawn ca. two inches. The inner stopper is pushed out of the tube and the outer stopper is immediately replaced. The adults will move into the tube if it is on the lighter side of the cage. The inner stopper is then replaced by pulling the string. The sampling time should be short - 30 to 60 seconds - to obtain maximum density of adults and to avoid larvae in the sample. The tube is then withdrawn. Later, the flies may be replaced in the cage in an empty shell vial. The mortality in the sample is 2-3% due to crushing between the stopper and the wall of the tube.

Brown, E. H. and J. H. Sang. Poultry Research Centre, Edinburgh. A simple $CO_2$ anaesthetiser.

$CO_2$ was found to be the best anaesthetic for females being used in egg formation studies. Unlike ether which inhibits egg production, repeated tests showed that $CO_2$ had little or no detrimental effect even when females were kept under anaesthesia for some minutes. A simple anaesthetiser was turned from perspex in the form illustrated below. $CO_2$ is regulated through a simple bubble guage into the base (A) which has the perforated dish (C) fitted into it. The cone shaped top (B) is a push fit on to the base, and is made to accept the culture vials from which the adults are tapped. Its inner dimension fits closely onto the perforated dish. (The scale line represents 2 cm.)