Such a central action of Antabuse also has been suggested by Graham *et al.*(8) as an explanation for the prolongation of the action of phenobarbital and hexobarbital in the rat and guinea pig by this drug.

Summary. The influence of Antabuse on the duration of action of thiopental has been determined in 3 animal species: mice, rats, and dogs. Oral administration of Antabuse at a dose level of 1 g/kg day for as long as 5 days in the mouse or 100 mg/kg/day for 3 days in the dog did not affect the duration of action of anesthetic doses of thiopental. However, single oral doses of 1 g/kg of Antabuse in the rat resulted in a significant prolongation of action. These results are discussed in relation to the possible site of action of Antabuse and it is suggested that the effect in the rat may be due to a central nervous system action of the drug.

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A Simple Procedure for Preparing Anaerobic Plasma. (19946)

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In the determination of blood gases it is frequently desired to obtain samples of plasma which have not been exposed to air. The following method has proven very satisfactory in our laboratory. It has the particular advantages that: (a) small samples can be handled in this way, and (b) the plasma samples can be readily freed from any trace of mineral oil which may be present.

Procedure. The apparatus consists of the following special pieces: (a) a tuberculin syringe (available in 0.25, 0.50, 1.0 and 2.0 ml sizes) in which the solid glass plunger has been broken at some predetermined point, and (b) a syringe cap made by cutting the needle portion from a hypodermic needle and sealing the opening with solder. The syringe and both portions of the broken plunger are well lubricated with mineral oil and a few drops of mineral oil are placed in the syringe cap. The syringe is rinsed with a few drops of heparin solution, and the excess is ejected. This leaves the lumen of the needle filled with mineral oil and heparin, and displaces the last trace of air. Though the plunger of the syringe is broken, if well lubricated with mineral oil, the plunger will perform as a unit even under reasonable negative pressures. As the volume of blood drawn into the syringe reaches the desired capacity (and the break in the syringe plunger comes to the end of the barrel) the outer end of the plunger comes off easily and is removed. It is usually found that the blood pressure of the animal will continue to force the inner portion of the barrel out slightly. After the sample of blood is drawn, the needle is removed and is quickly replaced by the oil-filled syringe cap. This unit is then placed in a lusteroid centrifuge tube containing a few milliliters of mercury, is surrounded with finely cracked ice, and is centrifuged at low speeds (500-700 g for 15 minutes). At higher speeds some of the blood sample is frequently lost by leakage. If traces of mercury are found between the barrel and plunger (which will cause the plunger to move with difficulty) a small amount of vaseline should be spread over the

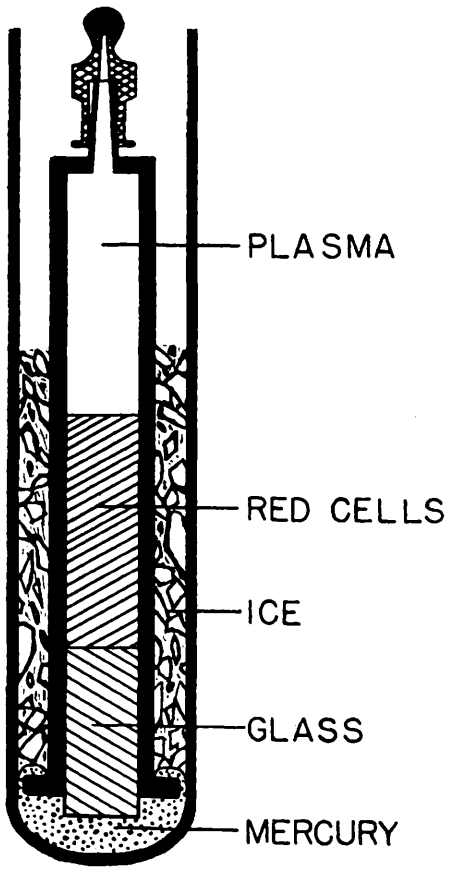

FIG. 1. Apparatus as it appears immediately following centrifugation.

lower portion of the glass unit before centrifuging, or the volume of mercury in the centrifuge tube should be decreased.

Following centrifugation it will be found (Fig. 1) that the red cells have been centrifuged into a compact layer just above the plunger of the syringe. If only minimal amounts of mineral oil have been used, the mineral oil will be found in the small tip of the syringe where it can easily be ejected. The remainder of the plunger is returned to its normal position and the samples are delivered into pipets.

With Krogh-Keys pipets(1) and the usual volumetric pipets this is easily accomplished by connecting the pipet to the syringe tip with a 1 cm length of small latex tubing, and filling the pipet with positive pressure from the syringe. With Scholander-Roughton blood pipets(2) it has been found convenient to grind the syringe tip so that the pipet tip fits into it. Between aliquots the cap was returned to the syringe tip.

This work was carried out under a contract between the University of Minnesota and the Atomic Energy Commission.

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Glomerular Intermittence in Rats Demonstrated by Use of a New Direct Visual Technic. (19947)

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Incidental to a broader study of the renal vascular bed in various physiological and pathological states of function, we have gathered material which seems clearly to demonstrate glomerular intermittence in the rat kidney.

Glomerular intermittence was first observed in the frog by Richards *et al.*(1) and its occurrence in amphibia is widely accepted. However, the belief that "all glomeruli function all the time" in mammals has been widely held. Smith(2) and others believe their work utilizing clearance technics constitutes firm proof of this statement if not in all mammals at least in the dog and humans. The work of Kaplan and Smith(3) using clearance technics has demonstrated glomerular intermittence in rabbits. This work has been both confirmed and disputed by others.

Methods. Our technic consisted in the following: 1) At a preliminary operation (under ether anesthesia) rats were opened, the abdom-