preparation has some of the same qualities as above described substance, in that it is soluble in solvents of lipids, unstable in alkaline solutions and gives as it was found only for cortin the flocculating reaction. Swingle and Pfiffner's cortical hormone was not examined because its preparation is very difficult and I could not obtain a market preparation.

If we assume that the cortical hormone regulates the relation between the lipids of the tissue and the medium, it is possible to suppose that the substance which flocculates the lecithin in the presence of albumen is, if not the same, closely related to the cortical hormone.

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Bubble Recorder for Mariotte Bottles.

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The recording of bubbles passing through a Mariotte bottle by means of a tambour offers considerable technical difficulties, as for instance, in the lung perfusion, described by Sollmann and von Oettingen;[1] nor does the device, worked out by Atzler and Frank[2] give satisfactory records.

Very good results have been obtained with the following device which utilizes the oscillation of the fluid in the inlet tube of the Mariotte stopper to close a circuit between a pair of wire electrodes adjusted in the lower end of the tube. The electrodes consist of copper wires fused into narrow glass-tubes for insulation, with projecting platinum tips. One wire is adjusted to about one millimeter above the lower rim of the tube, the other wire dips about 0.5 cm. into the fluid. The 2 electrodes are held together by a rubber-ring through which a pin passes, which rests upon the upper rim of the Mariotte tube (Fig. A). By shifting this ring up and down, the electrodes can be adjusted to different levels; they are connected with a current of 110 volts and with a relay arrangement,

[1] Sollmann, T., and von Oettingen, W. F., PROC. SOC. EXP. BIOL. AND MED., 1928, **25**, 692.

[2] Atzler, E., and Frank, L., *Pflüger's Arch. ges. Physiol.*, 1920, **181**, 141.

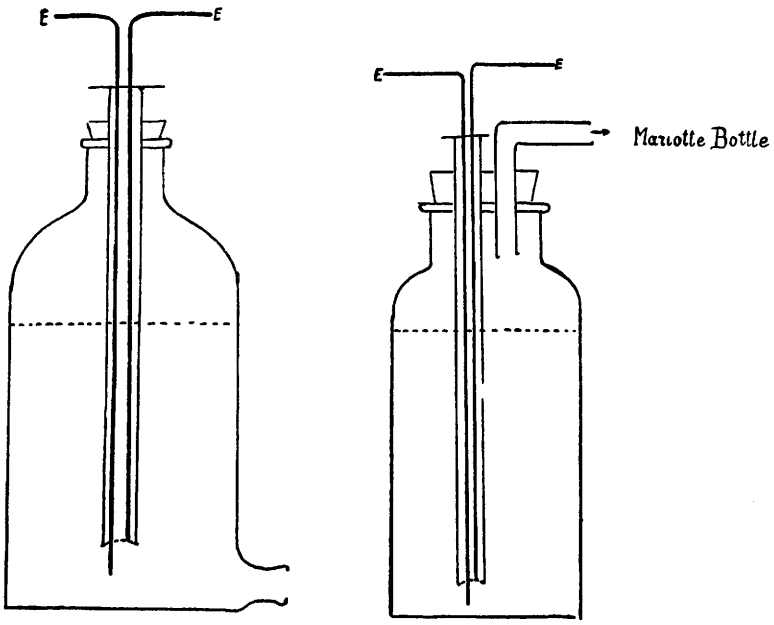

Fig. A Fig. B

the dry cells of which feed a signal magnet, as described by Biskind and Dan.[3]

When the fluid within the Mariotte tube rises a little after each bubble, the 2 electrodes are short-circuited, and a signal mark is produced on a moving drum. There is virtually no danger of changing the composition of the saline solution by electrolytic decomposition products, because the contact between saline and electrodes is short, and the quantity of saline coming in contact is very small.

In case very unstable solutions and sensitive objects are used, the electrodes may be placed into a small supplementary bubbling bottle partly filled with saline solution, the air-chamber in the top of this bottle being connected with the inlet tube of the Mariotte bottle (Fig. B).

[3] Biskind, M., and Dan, M., PROC. SOC. EXP. BIOL. AND MED., 1928, **26**, 52.