A Device for Controlling Humidity in Biosynthesis of Drugs[1]

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In the course of experiments on the biosynthesis of labeled drugs we encountered some difficulty in growing young *Digitalis lanata* plants in a sealed atmosphere. Excess moisture in the atmosphere of the terrarium was considered as one of the major factors detrimental to their growth. Consequently, a device for controlling the excessive humidity was devised. The necessity of preventing loss of any $C^{14}O_2$ from the terrarium required the construction of an air-tight unit such as that illustrated in Fig. 1.

It consists of a motor-driven blower[3] housed in an air-tight 9″×12″ battery jar covered with a circular piece of glass plate and sealed with a 50/50 mixture of beeswax and rosin. Moisture-laden air is drawn from the terrarium, through the motor-blower, into a condenser, and thence back into the terrarium, the excess moisture being condensed and the condensate being collected and drained off from the bottom of the unit.

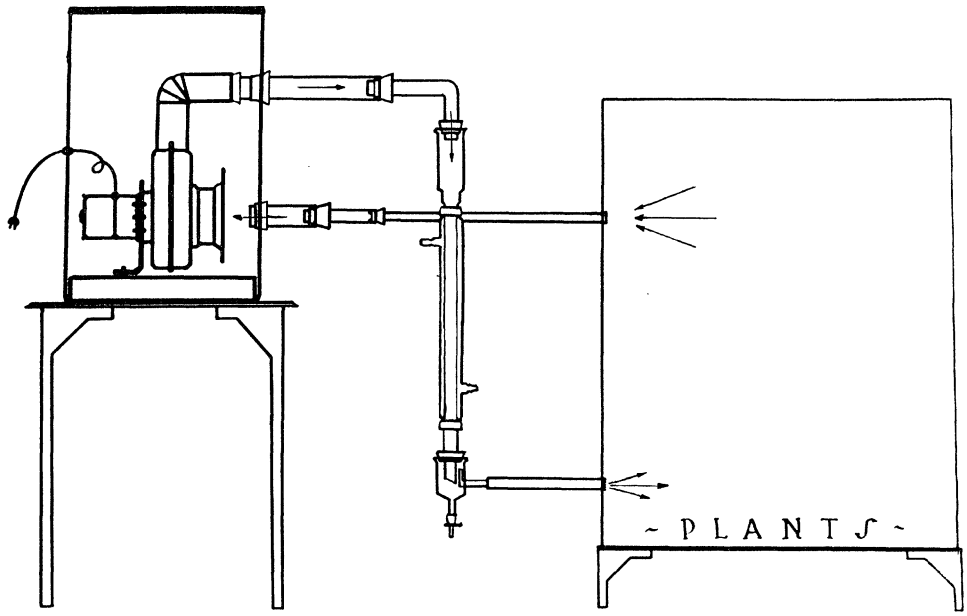

FIG. 1. Drawing illustrating blower-condenser unit with blower-motor housed in battery jar (left) and terrarium (right). The water condenser is connected between the exit of the blower unit and the entrance to the terrarium.

Employing this blower-condenser unit, we have been able to grow radioactive *Digitalis lanata* in sufficient quantities and with radioactivity of desired intensity.

The Production of Unilateral Epileptiform Convulsions From Otherwise Quiescent Foci by the Administration of Benzedrine

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Ruch (*5*) has recently reported the sedative effect of cerebral excitant drugs on hyperactivity in macaques with prefrontal lesions. The effect of this class of drug in changing the behavior resulting from cortical insult suggested to us that latent characteristics of a surgically-altered nervous system might be elicited by changing its chemical environment. The consequences of an investigation of this possibility justify a preliminary report of the occurrence of unilateral Jacksonian seizures following administration of benzedrine (amphetamine sulfate) to an immature male macaque with symmetrical bilateral prefrontal removals.

This animal was acquired in October 1946 and was trained to mastery of the following problems: (a) visual-spatial delayed response to a criterion of 90% correct at 30 sec, (b) auditory discrimination between a bell and a buzzer to a criterion of 90% correct, and (c) auditory delayed response to a criterion of 90% correct at 12 sec. The preoperative period of observation of approximately 6 months revealed no unusual physiological or behavioral characteristics. On May 7, 1947, a bilateral removal of

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[3] Delco Appliances, General Motors Corporation. (115 volts, 60 cycles, 40 watts, 0.45 amps.)