The humidity is controlled by the percentage humidity in the room itself.

In addition to the incubator chambers maintaining temperatures above that of the room, there has been installed a large four door Frigidaire. Within this have been introduced five distinct insulated compartments with double glass doors (about 14" x 10" x 15") each with a heating element enclosed in lamp cylinder of asbestos. The temperature is controlled by toluol filled thermo-regulators operating the heating element through Dunco Relays (Struthers Dunn, Inc., Phila. #CS-1022-$11.00). The Frigidaire cooling system maintains a temperature of 4°-8°C around the insulated chambers, and temperatures up to 15° C are maintained within the chambers with a variation of less than 0.2° C over long periods.

The system is somewhat unique in that the room as a whole is held at an intermediate temperature with a series of 17 compartments at accurately controlled temperature above and below that point. Such a system is much less expensive than that of keeping the room at the lowest point, and the various intervals are more easily maintained. It has now been in operation for three months and seems to be entirely satisfactory.

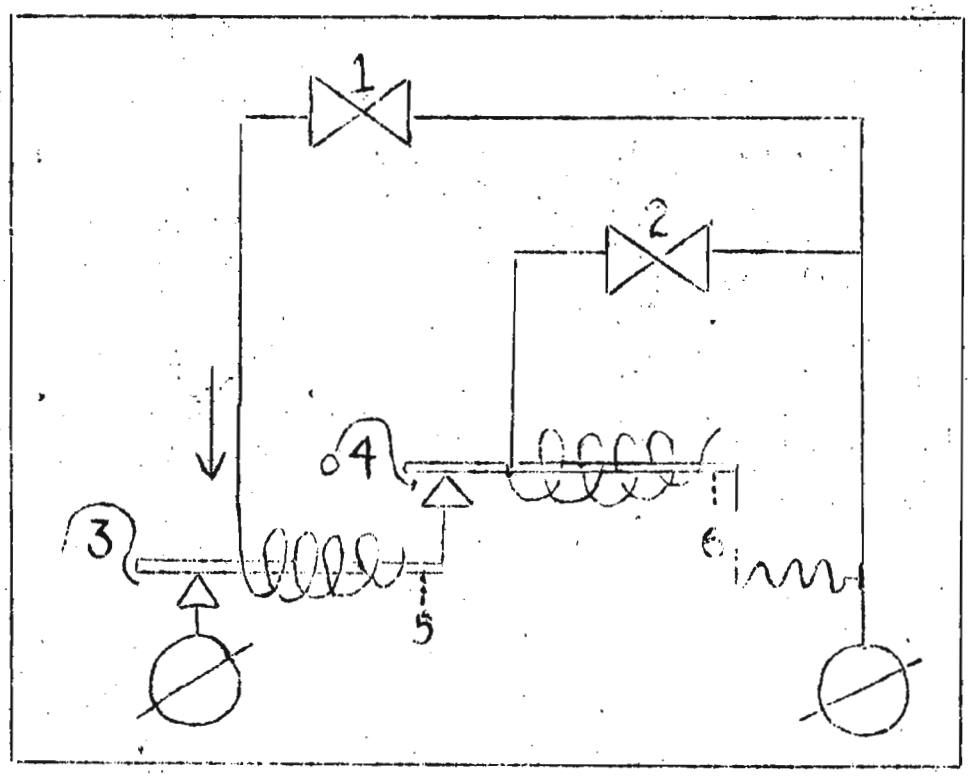
A series of Wheatstone Bridge Resistance Thermometers which will make a printed record of temperatures and relative humidities of six separate compartments simultaneously (with and accuracy of #0.25° C) is now being installed.

The room is large enough for a series of shelves and a table for microscopic work, so that observation as well as other types of work can be carried on.

The total cost of the whole installation was close to $4000.00. The room and equipment were planned by the members of the department. Further details can be furnished by writing to H. H. Plough.

Medvedev, N.N. Thermal control As experience shows, the best solution of the incubator problem is the construction of one big room-like thermostat instead of a number of them for personal use or for the use of some workers. The small incubators are used only in special work, when high or low temperatures are desirable.

The thermal control system of Frank that we adopted, after much experience, may be generally recommended as a very precise and cheap one. It consists of two regulators (see figure), one of which (2) keeps the desirable temperature (e.g. 26° C); the second regulator (1) is an extra one and breaks all contact when the temperature in the incubator accidently reaches 2-3 degrees above the point desired. This complete breakage of the current is brought about by the spring (3), being so designed that it breaks the current at a definite temperature but does not close it again automatically. The spring (4) on the other hand, breaks and closes contact automatically. Both regulators (1,2) as well as the breaking parts (5,6) are made from bimetallic plates.



Use of similar thermostat rooms and thermal control systems is reported by R. A. Masing and A. I. Zuitin.

Mossige, Jeanne Constant temperature arrangement. Constant temperature water baths up to 29° are used at the Zoology Laboratory of Columbia University with great success. The flies are placed in six inch vials in wire holders, the upper two inches above the water level, with deep cotton plugs. This gives a temperature accurate to within 0.1° and a larger working space than any of the usual small laboratory incubators.

Shull, A.F. Heating units and thermal control. Heating units for temperature cabinets made up in any form, similar to those used in poultry brooders, may be obtained from Oakes Manufacturing Co. Inc., Tipton, Indiana. A small-sized unit costs $1.20.

Temperature control for these cabinets may be obtained with Circuit Breakers, made by the above company, at a cost of $1.30 each.

Camara, A. Incubators. We use Common incubators of Charles Hearson of London and Hugersboff of Leipzig. We have also some incubators built in this Institute.