

# EQUIPPING A HOME ECONOMICS RESEARCH LABORATORY

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## Planning the Home Economics Research Laboratory—Cost of Equipment Discussed—Research Valuable in Food Studies

THE UNIVERSITY OF ARIZONA has been one of the first institutions to take advantage of the fund provided for in the Purnell Bill for the advancement of research in Home Economics. Here a convenient and well equipped laboratory has been assembled which will be described in this article.

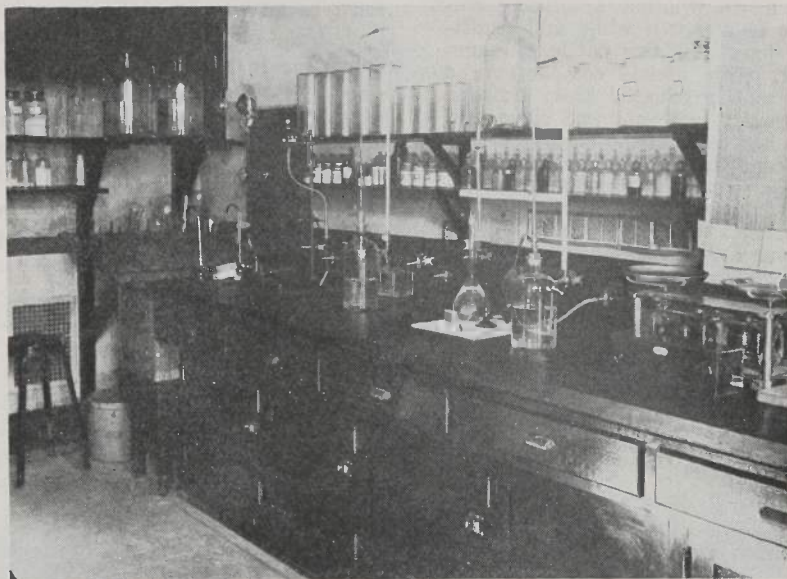
The type of a laboratory is determined to some extent by the nature of the problem to be solved, although a research laboratory in Home Economics should have the same fundamental equipment as a Chemistry research laboratory, since research problems in Home Economics are very likely to be applied Chemistry in their nature.

The selection of the room is usually determined by what is available. If there is some choice, however, such factors as accessibility to plumbing connections and flues are to be considered. The first step is to draw a floor plan of the room to scale. Every part of the room should be studied with a view to economical placing of stationary equipment.

Poor ventilation can be offset by means of an exhaust fan placed in the top of the window. Side lights can be placed where extra lighting is needed, as for example, over the balance and in the hood. Provision must be made for the piping of water, gas and electric wiring. A supply of distilled water is essential, while suction, compressed air and steam are assets although not necessities.

Laboratory desks of the standard height of 36 inches are the most comfortable for working, whether sitting or standing. The size of the laboratory and positions of windows and doors determine the extent of desk. All working space possible should be allowed for, because it is surprising how quickly the available desk space is used by the accumulation of large pieces of apparatus. Desks lining the walls are very much better adapted to one's ready use than one desk twice the size in the center of the room.

Cupboards and shelves should be places for storage of equipment and materials. An easily installed and practical plumbing arrangement con-



The home economics laboratory equipment in 1927.

sists of a series of pipes, one above the other, located against the wall at the back of the desk, one each for water, gas and electric wires with frequent outlets at convenient places.

An indispensable feature of a laboratory is the hood which must be located so as to be easily accessible to the flue. It should be arranged so as to give fire proof protection to the desk below. The poor natural lighting of the hood should be remedied by installing an electric light in it.

For greater convenience, a sink should be located in a more or less central position in the room. However, in a laboratory of this size, a sink placed at the end of the working desk is preferable, because it eliminates a break in the working space. A simple yet extremely useful device for the drying of utensils consists of finger-like projections on a slanting drain board at one side of the sink and perhaps on the wall back of it. These pegs keep small apparatus as flasks, beakers, etc., in position to drain and greatly hastens their drying.

The equipping of the laboratory as far as room furniture, plumbing connections and wiring are concerned,

cost, including materials and labor charges, approximately \$700.

Anticipation of one's equipment, apparatus and supplies is necessary, since the Home Economics Research Laboratory is a unit in itself and adequate supplies must be obtained at the beginning of the problem. The total cost of the portable apparatus amounts to approximately \$1060. The equipment specific in its use, functioning only in the bread making experiment totals about \$890. This brings the total cost including room furniture, plumbing connections and all apparatus up to \$2650, and an expenditure of another \$150 for chemicals and consumable food supplies, bringing the total in the neighborhood of \$2800.

Fortunate indeed is the Home Economics Department which has its own research chemical laboratory. The interest in such a laboratory is not confined to the research worker; it provides additional facilities for instruction in elementary foods and textiles as well as affording adequate equipment for graduate work.

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Jack: Mary sure is talkative these days.

Mildred: Yes, she was vaccinated with a phonograph needle.