

rooms with comfortable, adequate, visual conditions—make it worth the effort.

To obtain more information on lighting consult your county Extension Service's home economist or the electric utility that serves you.

**For further reading:**

U.S. Department of Agriculture. *Planning Your Home Lighting*, Home and Garden Bulletin No. 138, Superintendent of Documents, Government Printing Office, Washington, D.C. 20402, 20 cents.

Better Light Better Sight Bureau, *The Facts of Light: The New Language of Light Bulbs: Remodeling Sketchbook* No. B72-580, Box 1647 Grand Central Station, New York, N.Y. 10017. Single copies free.

General Electric Co., The Lumen Calculator, No. 146-0486: *The Light Book: How to be at Home With Lighting*, No. 146-1220; Six booklets in the *Light Makes a Difference* series—*In the Kitchen*, No. 230-5520, *In the Bathroom*, No. 230-5521, *In the Family Room*, No. 230-5522, *In the Living/Dining Room*, No. 230-5523, *In the Bedroom*, No. 230-5524, *In Outdoor Living*, No. 230-5525, Inquiry Bureau, Nela Park, Cleveland, Ohio 44112. Single copies free.

Illuminating Engineering Society, *Design Criteria for Lighting Interior Living Spaces*, 345 East 47th Street, New York, N.Y. 10017. \$4.50 plus \$1 service charge on single-copy orders.

Sylvania Lighting Center, *Bright Ideas* Series, Sylvania Electric Products, 100 Endicott Street, Danvers, Mass. 01923. Single copies free.

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## Portable Storage, Room Dividers

GENERAL BASIC STORAGE in housing units is needed by all families, and different life styles require some individual adaptation of storage. Often there is a sparsity of storage in even the more expensive houses and apartments. Homes occupied by low-income families almost without exception have inadequate storage. The biggest reasons for inadequate storage in residential units are the added cost and a lack of planning at the time of building.

Fortunately, something can be done to improve household storage in owner-occupied and rented units. Portable or movable storage can be designed to fill the need, and constructed either by a cabinetmaker or by a family member who has some knowledge of hand tools and likes to work with his hands. Portable storage units can also be moved with other household goods when the family changes its place of residence.

The following suggestions for storage designs with do-it-yourself construction techniques may be helpful in planning and keeping costs down. Ideas for portable room dividers also are discussed later in the chapter.

Base-type storage units are useful in the home in at least two ways. They serve to store items at the place of use, and the counter top can serve as a work surface for meal preparation and serving, as a dressing table, or as a place for working on or displaying hobbies.

A base cabinet with simple design that will have the fewest parts, and proper use of the least expensive materials may interest families with a small amount of money to invest. Others may elect to use more expensive materials, add drawers and hinged doors for convenience, and apply a fine finish.

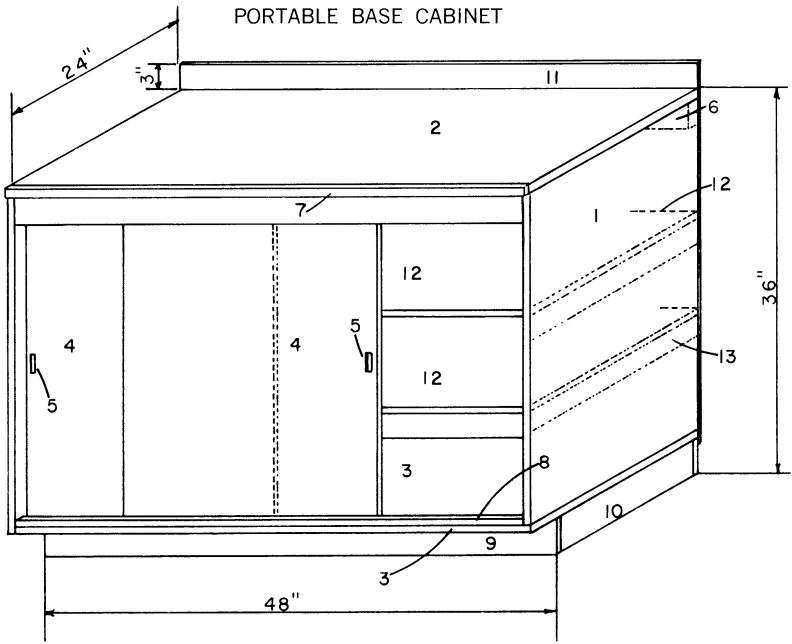
A low-cost counter-type storage unit 3 feet high, 2 feet deep and 4 feet long can be used in the kitchen, utility room, bedroom, dining, or living room. A simple design with sliding doors, wood counter top, and no drawers can be relatively inexpensive and easy to construct.

Sides, floor, shelf, and back may be of  $\frac{3}{4}$ -inch particleboard, or plywood—which is more expensive. The base providing toe space is a 1-x4-inch No. 2 pine or fir board.

Parts should be sawed accurately, using an electric saw with a carbide

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NUMBER OF PARTS

- 1
- 2
- 3
- 4
- 11
- 12
- 13
- 5
- 6
- 7
- 8
- 9
- 10

NAME OF PARTS

- Ends (2) 24" X 31 1/4"
- Top (1) 24" X 48"
- Bottom (1) 24" X 48"
- Door (2) 24" X 30"
- Back (1) 36" X 48"
- Shelves (2) 21 3/4" X 46 3/4"
- Shelf supports (4) 2 1/4" X 21 1/2"
- Pulls (2) 3/4" X 3"
- Support top (2) 1" X 4" X 46 3/4"
- Front trim (1) 1 1/2" X 48"
- Door guide (1) 3/4" X 46 3/4"
- Front toe (2) 1" X 4" X 48"
- Side toe base (2) 1" X 4" X 19 1/2"

tipped blade for particleboard. Holes should be drilled for 4-penny finish nails driven near the edge of the board. A 3/8-inch drill, with a regular drill bit, three-fourths the diameter of the nails to be used, is recommended. A finishing nail serves very well in place of a regular drill bit. Glue on both surfaces, in addition to nails, adds strength at the joints.

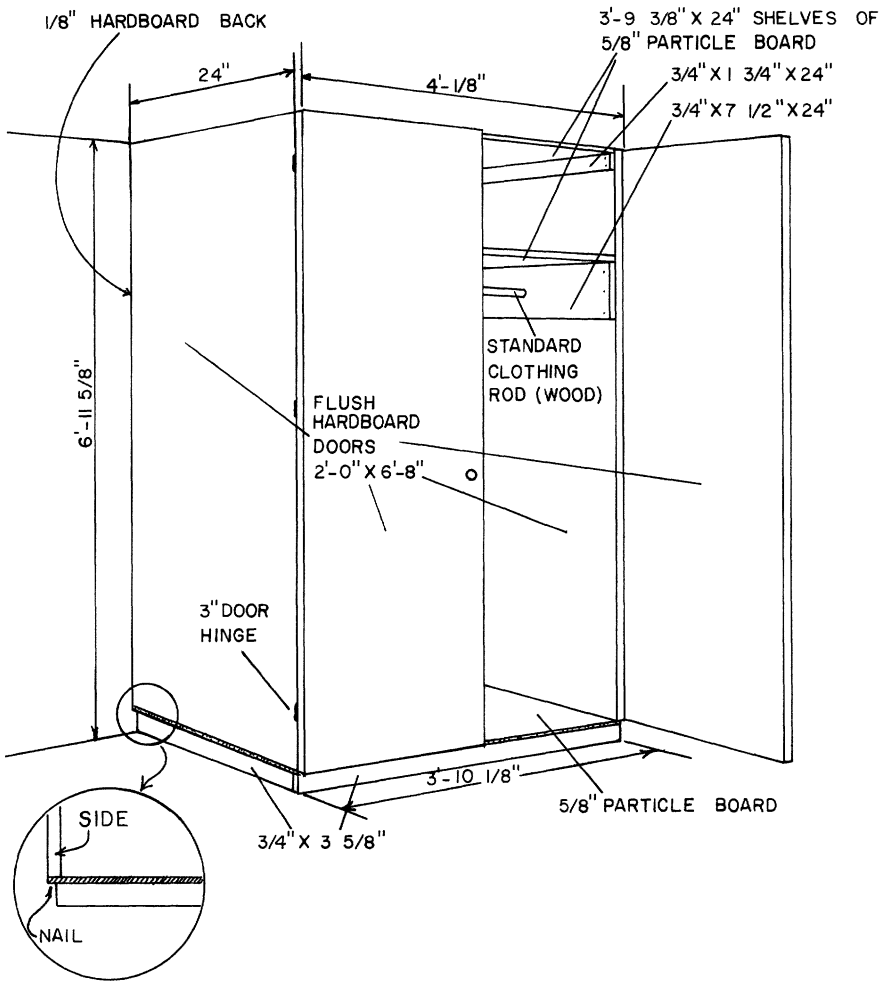
When varnishing or painting particleboard, use a filler or sanding sealer first, then two finish coats. The satisfactory use of stains with lacquers or varnishes may require some experimentation.

Normal procedure for painting is to use: (1) a filler or sealer, (2) a prime coat, and (3) a finish coat. Paint containing water should not be applied to particleboard which has not first been coated with an appropriate oil base primer or filler.

Apply filler and primer to the back of doors to prevent unbalanced moisture penetration that could cause warping.

A closet for clothes storage is needed by all family members, and of course the more clothes one has the more storage is needed. A clothes closet 2 feet deep inside by 3 feet wide is the

## PORTABLE DOOR CLOSET



minimum allowed in new homes with loans insured by the Government. An adult needs 4 to 8 feet of rod-hanging space.

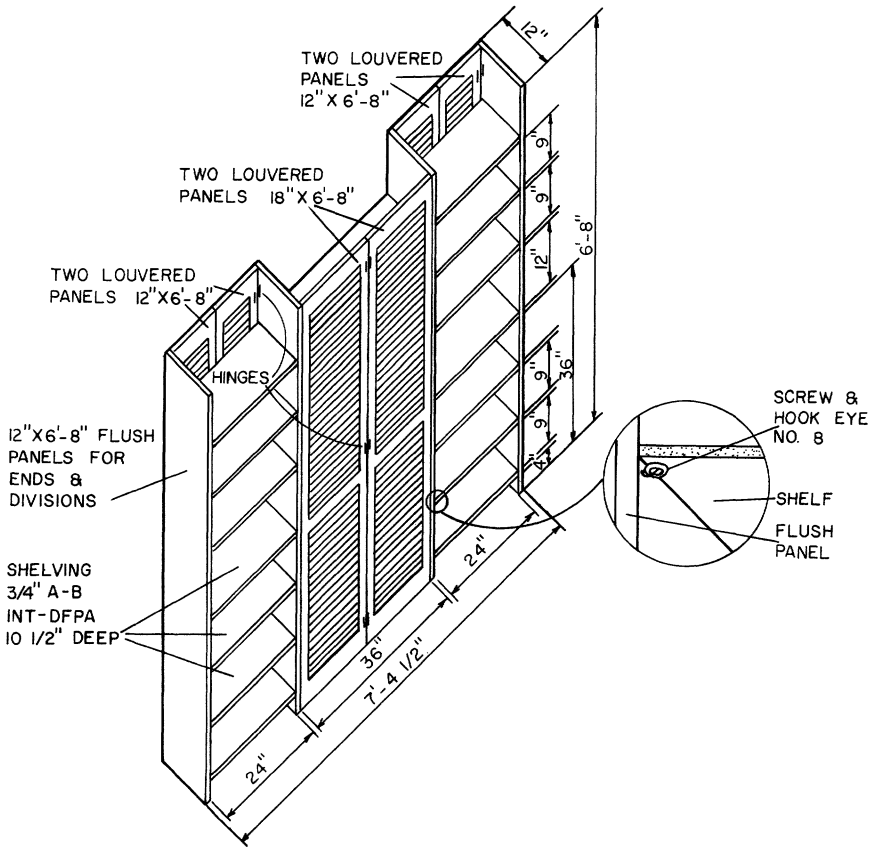
Closet space seems limited in most houses and apartments. A simple 2-by-4-foot free-standing unit 6 feet 8 inches high can be quickly and easily constructed by assembling four flush doors. First, a base is made of 1-x4-inch No. 2 pine on edge with a floor of  $\frac{3}{8}$ -inch particleboard nailed to it.

After constructing the base it should

be tapered, if necessary, on the bottom so that the floor of the closet will be level from front to back and side to side. This step is not required where the floor is level at the place of closet use.

Next, nail the shelf and top cleats to the side panel doors, then hinge the front doors to the side panels. Then with the front door laid face down, install the  $\frac{3}{8}$ -inch particleboard shelf, top panel, and base. The base is nailed on the bottom end of the side panels.

LIVING ROOM-DINING ROOM DIVIDER



With the unit in this position, nail the  $\frac{1}{8}$ -inch hardboard back which will enclose the back and give rigidity.

The unit is usable in a corner, in the center of a wall or beside the front entrance to serve as a coat closet and room divider when needed and when space permits.

Hardboard hollow-core doors are the least expensive to buy and they paint well. A primer-sealer coat and one semi-gloss enamel coat are suggested for hardboard. Flush wood doors may be selected. Closet width can vary, as the width of stock doors varies in 4-inch increments. Prefinished hardboard doors are available.

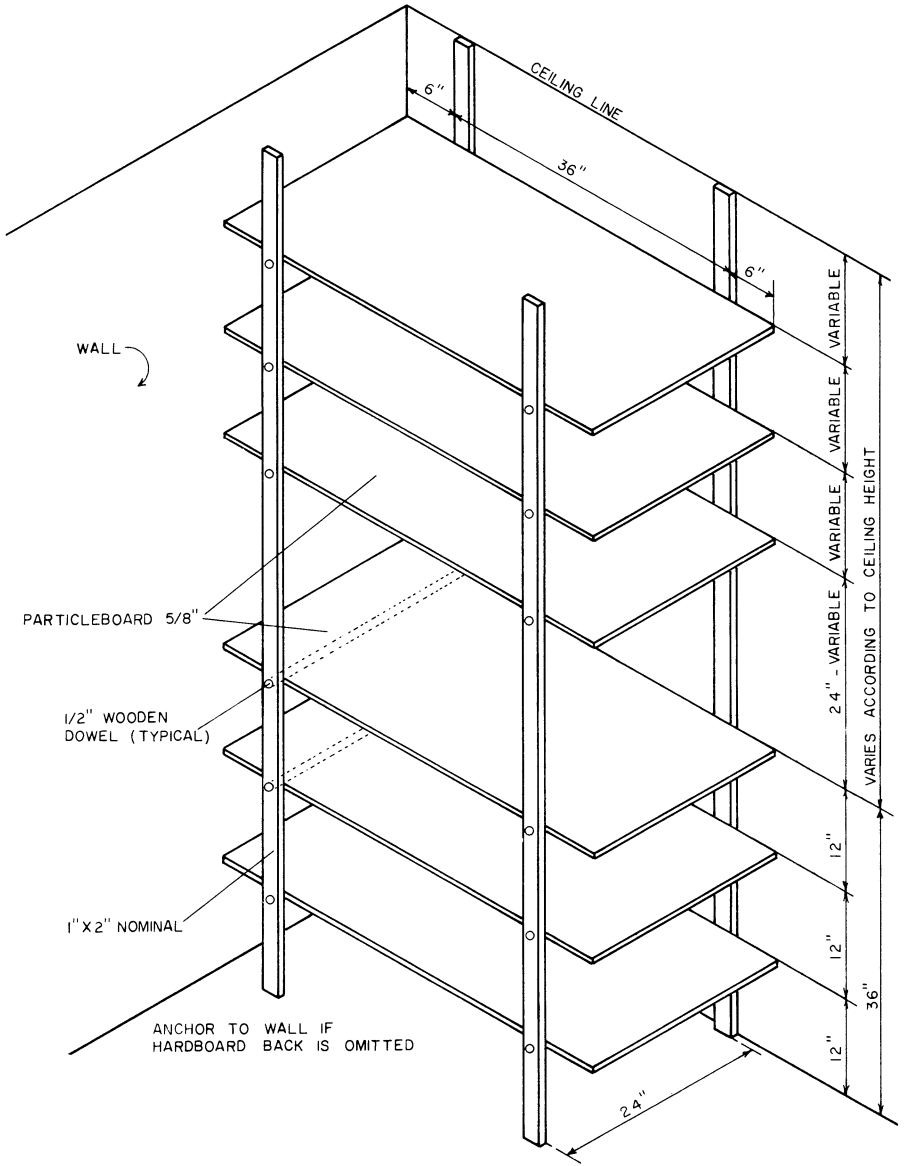
Two units together, facing in opposite directions, can be used as a free-

standing room divider in a large bedroom for children.

The combination living room-dining room or family room-dining room is designed in some floor plans to economize or for casual living. Families with such arrangements may find that privacy at the table is needed during mealtime, and there may be a need for a shield to obscure a view of dirty dishes from the living area. Privacy can be provided with a room divider that adds graciousness and may even provide needed storage.

A divider may consist of a simple folding screen, cloth panels from floor to ceiling, or a three-dimension unit useful for storage in addition to giving space dimension and sight separation

FLEXIBLE LADDER SHELF UNIT



between the living and dining areas. Such a divider can be designed, built, and installed by owner families and even by renters of houses or apartments because no structural changes in the residence are necessary.

A free-standing divider, 12 inches

deep, 6 feet 8 inches high and 7 feet 4½ inches long, can be assembled mostly of stock elements. This should assure good appearance.

Selected for an example is a divider consisting of end and division panels 12 inches wide by 6 feet 8 inches high

by 1½ inches thick, purchased as flush bifold closet doors. For the back panels, bifold louvered closet doors are used. The unit requires four flush panels 12 inches wide, four louvered panels 12 inches wide and two louvered panels 18 inches wide.

Shelving consists of ¾ inch A-B INT-DFPA plywood or shelving board. Shelves 24 inches long are shown in the end sections and 36 inches in the center section. These shelves are 10½ inches deep.

With the use of hinges to attach the side and division panels to the back panels on the shelf side and with the use of screws and hook eyes for shelf supports, the unit can be readied for moving, if necessary, by removing, stacking, and tying the shelves and then folding the panels flat similarly to folding a road map.

One basic design principle for storage that can be adapted to individual family needs for specific purposes would seem to be ideal. Ladder-type supports for shelving approaches this because of the flexibility it provides. It can be moved from room to room, or from one home to another.

Shelving is the basic component of most household storage. Wide, narrow, long, short, flexible spacing, open or closed shelves, variable height, material cost, etc., are considerations in designing shelf storage. A shelf unit should be designed to fit the need and located where the stored items are to be first used.

One example of the ladder-support shelf design may serve to illustrate this storage principle. To construct a floor-to-ceiling unit, cut four pieces of 1x2's of No. 1 pine or fir to the floor-to-ceiling length.

Decide next on the shelf spacing and mark one support. Stack the supports with the marked one on top and drill ½-inch holes to receive ½-inch hardwood dowels for shelf supports.

Build two ladders using the dowels. For 2-foot-deep shelves, cut the dowels to allow shelf to fit on the dowel between the vertical supports. The span

of shelves between the ladder supports should not exceed 30 inches, particularly for heavy storage.

Rear vertical supports must be anchored to the walls at the top. But where the unit is to be free standing, a back of ¾-inch hardboard can be fastened by screws to the back of the rear vertical supports.

Such a unit can be easily disassembled and moved to a new location, if necessary.

In designing or adapting existing storage to a specific need there are some simple rules to keep in mind. Use of factory components such as the factory-made doors suggested in the closet storage and in the room divider can fairly well determine that the unit will be of acceptable appearance if jointing and finishing are well done.

One should also keep in mind the limitations on the weight shelves will carry. A solid-wood shelf of white pine or most other woods should be supported for at least every four feet of length. Particleboard would be expected to support less weight than plywood or solid wood of the same thickness.

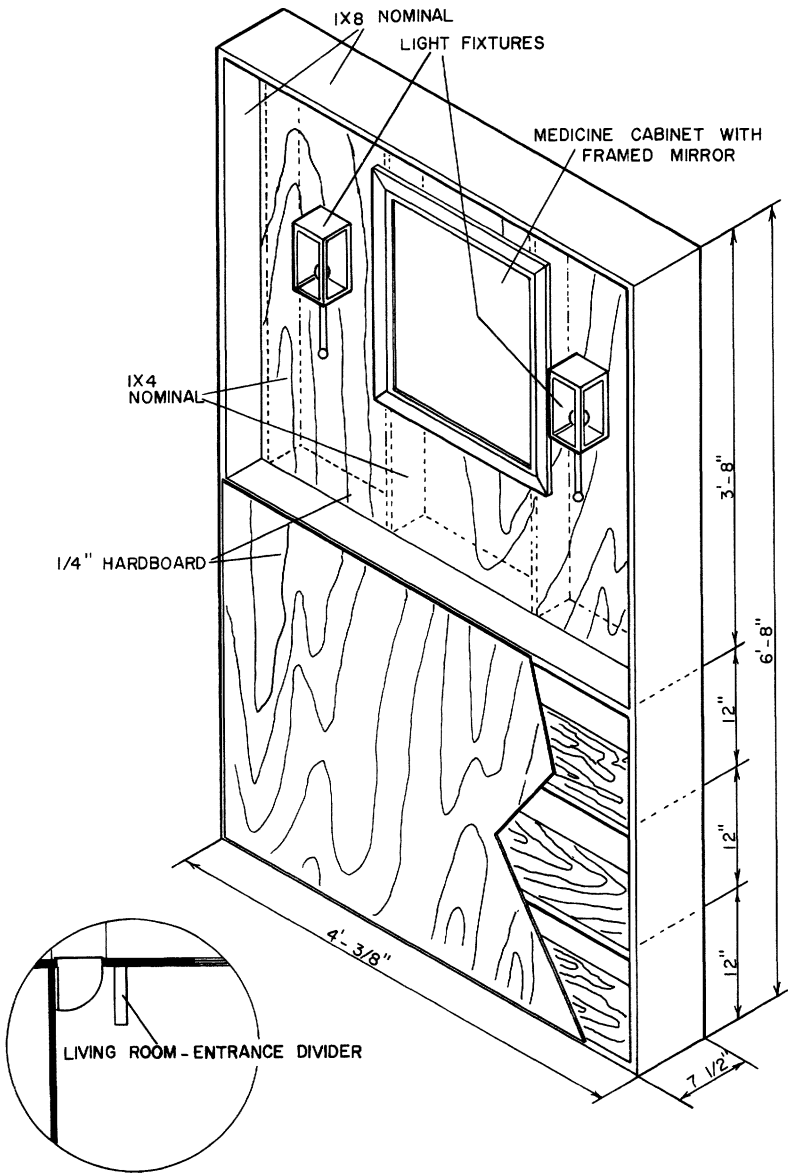
Privacy at the front door plus a chance to create a warm welcome and desired family impressions is sometimes provided by an entrance hall. Some families that do not have an entrance hall may feel a real need for doing something to improve their guest entrance.

Space permitting, privacy at an entrance often can be created by a portable free-standing divider beside the front door. A minimum 4-foot-wide entrance should be allowed at the door.

An entrance unit might be built in the form of exposed bookshelves, using the bottom 3 feet to face the living area.

The space above 3 feet could face the entrance area. In this space a mirror with side lights and a plug-in cord would make the divider functional and attractive to persons coming or going, particularly those who might want to check their appearance. Thickness to accommodate the medicine-cabinet-type

### LIVING ROOM-ENTRANCE DIVIDER



mirror and the wiring is provided by the use of 1x4's separating the back surface and the front. A mirror without lights might be the choice of some families.

Overall dimensions for initial consideration could be: 4 feet wide, 6 feet

8 inches high and 7½ inches thick. This thickness will give reasonable stability and provide shelf space deep enough for most books. Moving this unit should not be a problem.

A shelf depth to 12 inches and greater may be desirable where space per-

mits and where the unit is to be permanent.

Side pieces, top, bottom, and shelves should be of No. 1 pine or fir. Back and front panels may be of ¼-inch plywood or hardboard prefinished or unfinished. Unfinished sides and shelves should be finished to match prefinished panels.

A word of caution for do-it-yourselfers is to learn how to use tools. Pick the right tools for the job and keep tools sharp and true. Ragged edges are often the result of dull tools.

Plan work ahead and be accurate in marking, cutting, and nailing. You will cherish the finished product in proportion to the accuracy that you used in constructing it.

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## Major Appliances For Homemakers

**R**ESPONSIBILITY for satisfactory performance of major home appliances falls upon three groups: the manufacturer, the retailer, and the family.

The manufacturer must search for better, safer, and more economical appliances to better serve the family. Through the Association of Home Appliance Manufacturers (AHAM), industry is working cooperatively on performance standards and certification programs for home appliances.

Manufacturers make appliance innovations known to the public through advertising and educational programs. Adequate instructions for operating the appliance should be provided with each sale.

Appropriate warranties or guarantees should be provided to protect the consumer who purchases the appliance against faulty merchandise. Replacement parts and training for servicemen must also be made available so that the appliances can serve a long and useful life.

The retailer must provide a suitable selection of each appliance to be sold so that each buyer can find the best appliance to meet his family situation. Salesmen should be trained to understand appliances and appliance features in order to explain them fully to prospective buyers. Such services as delivery, installation, and maintenance of appliances sold should also be provided at costs that are reasonable for the community served.

Additionally, the retailer is charged to serve as a liaison between the family and the manufacturer, seeing that conditions of the warranty are met by the manufacturer and insuring the general satisfaction of the family.

A reliable dealer is likely to retail reliable appliances and stand behind them.

Role of the family in appliance satisfaction is sometimes overlooked. Because appliances are purchased at infrequent intervals, new appliances may be different from what you now have. More choices may be available. You should take time to become fully informed before shopping.

The home economics extension program in most States can provide information on what is available in home appliances, the capabilities and limitations of appliances, and features that may be new to the consumer. Current magazines may also help. Mail order catalogs and information sheets which the dealer has describe the appliance and its features.

Many people rely on information provided by consumer testing groups. This information can be helpful if you recognize that not all models and makes are studied, and then read carefully to make certain that appliances are compared on a basis important to you.

Knowing what appliance variations are available is only half the job. You must also evaluate your family needs,

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