

Often they are not. For cans of liquid, the simple, inexpensive punch is most useful.

Screw caps call for an opener that is adjustable to grip any size. A variety of tools are available for pry-off lids. If you have several located strategically, you will have less temptation to use a good knife for the purpose.

SEVERAL ACCESSORY tools and utensils are useful.

Several bowls of various sizes are needed. For use with a small electric mixer or a rotary beater, a bowl should be deep and narrow. A 4-cup measure may double for the purpose. Weight helps to hold the bowl in place when beating is done.

A cutting board is necessary if you care about keeping knives sharp and protecting your countertops. You have your choice of sizes and shapes.

A large board is needed for rolling dough. You may prefer a plastic board or a pastry cloth to a wooden board.

The rolling pin, too, can be of plastic or wood. Hardwood, such as birch or maple, is desirable for cutting boards and rolling pins. Hardwood, cut across the grain, makes the best chopping board.

If you do not own a rubber spatula, you have no idea how handy it is. The rubber should be flexible. Buy a new one when the rubber becomes stiff.

Some homemakers consider the pastry brush an indispensable aid in oiling baking pans, buttering crusts of hot breads, basting meats for broiling, and similar operations. Nylon brushes are easy to clean but should not be used on extremely hot surfaces.

Cakes, cookies, and pies placed on a cooling rack after removal from the oven cool quickly because air can circulate underneath as well as around and over the pan or the food. For the homemaker who bakes layer cakes, two cooling racks are desirable. Store the racks carefully so they do not become misshapen.

Many recipes state the temperature to which a food should be cooked.

Correct use of thermometers gives assurance that food will be cooked to the right stage. Meat, candy, and deep-fat thermometers differ slightly. Select one for the intended use. The numbers on the thermometer should be easy to read.

The list of available gadgets could be pages long. It includes garnish cutters, cake decorators, and devices of many kinds for special purposes. To the homemaker who makes good use of it, any gadget is worth having. Seasonal ones, like Santa Claus cookie cutters, can be kept in a back corner or on a high shelf most of the year.

To earn a priority position in a top kitchen drawer, any tool should prove its worth through frequent, satisfactory service. (ELIZABETH BEVERIDGE AND LYDIA INMAN)

For Cooking

RANGES for homes are of four types: Freestanding, built-in, drop-in, and slide-in. They are 19 to 42 inches in front dimension and may have one or two ovens. Ovens may be at eye level, below the range surface, or both.

Most electric and gas (LP, natural, or manufactured) ranges have four surface units. Usually one unit (or two) is larger and has greater heat output than the others and so can heat larger containers of food more quickly.

Electric surface units may have five or seven switch positions. Some have graduated cooking positions over the entire dial. Some have pushbuttons for 4-, 6-, or 8-inch heating coils to suit the size of pan.

Many gas ranges are equipped with burners with four click positions and may be used at any number of positions.

The gas and electric ranges may be equipped with thermostatically controlled surface units. The unit operates on full heat until the food reaches a selected temperature. Then the heat lowers or cuts off automatically and continues to cut on and off to maintain the temperature.

Some ovens have a clock mechanism that turns the oven on and off at a time set in advance. The clock also may control an outlet, to which a small appliance, such as a coffeemaker, may be connected.

The heat controls on some ovens have a range of 140° to 550° F. Low settings may be used for thawing frozen food, warming plates, or keeping food at serving temperatures.

The controls on some gas ovens automatically change from one oven temperature to another, usually from a cooking to a keep-warm temperature.

An automatic meat thermometer eliminates the worry about undercooking beef or a turkey. When the meat reaches the preset internal temperature, the heat is reduced, and the oven keeps the meat serving hot without further cooking.

You may like to have a rotisserie in the oven or on the top of the range if you enjoy barbecued foods. Thermometers built into the spit assure properly done fowl or heavier cuts of meat.

Ceramic burners, higher wattage units, and reflectors provide concentrated heat for broiling. Multiheat broilers eliminate raising and lowering the grill. Grills on some constant-heat types can be raised or lowered from the range control panel. Vertical broilers that cook both sides at once are also available. To keep down spattering on the oven walls, some ranges have a high-walled pan, which is cooled by a water pan below.

Thermostatically controlled griddles are built into the surface of some models of gas and electric ranges. In one gas range, the griddle may be substituted for a large grate and converted to a fifth surface burner.

In one electric range, the oven can be cleaned automatically by setting the proper controls. A high temperature in a closed oven burns off the soil.

A plastic coating, easily cleaned with a damp cloth, on slideout oven sides is a feature of another range.

On other models, oven doors that lift off, an oven lining that rolls out, and sides and backs of ovens that are covered with replaceable aluminum foil contribute to easier cleaning.

Knobs, burners, trim rings, surface units, and drip pans are easy to remove for washing in many ranges. Several ranges have built-in ventilating or exhaust systems.

No one model has all the convenience features I have outlined. As models increase from the low end of the line to the top of the line, convenience features generally increase, with corresponding increases in price.

WHEN YOU SELECT a range, check for sturdy construction and a well-insulated oven.

Look for well-spaced surface units.

Check the clearance between the surface units and the oven on high-oven ranges.

Check for easy-to-read controls so placed that you do not have to reach over steaming pans to make adjustments, shelf stops that prevent oven and broiler racks from being pulled out accidentally, and parts that are easy to clean.

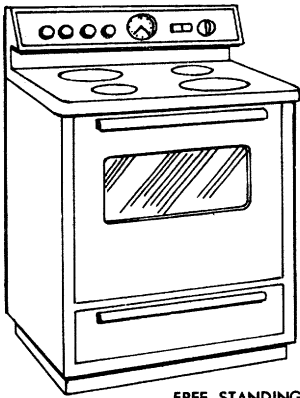
Pass up features that duplicate the jobs of small cooking appliances you already own. Choose the features that will make cooking easier and more pleasurable.

Look for the approval seal of the American Gas Association on gas ranges and the Underwriters' Laboratories seal on electric ranges.

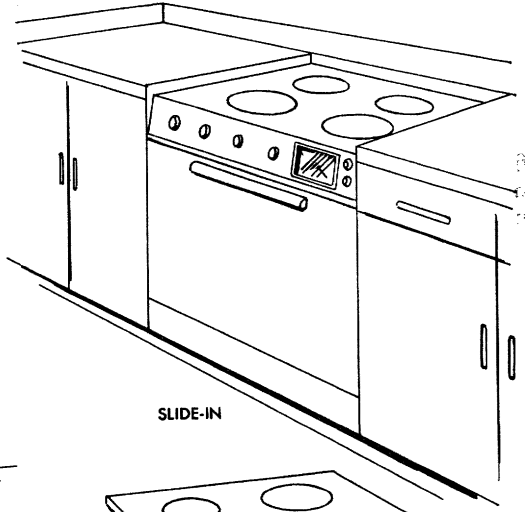
Check the availability of adequate and prompt service.

THE PROPER SELECTION and use of utensils for the top of the range and for the oven are important.

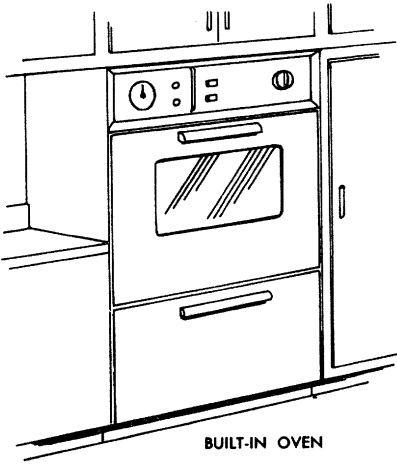
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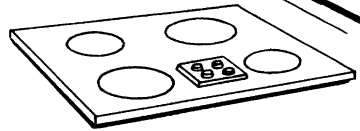
FREE STANDING



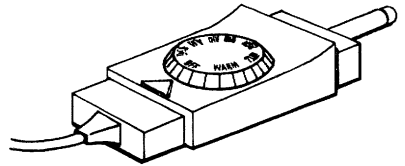
SLIDE-IN



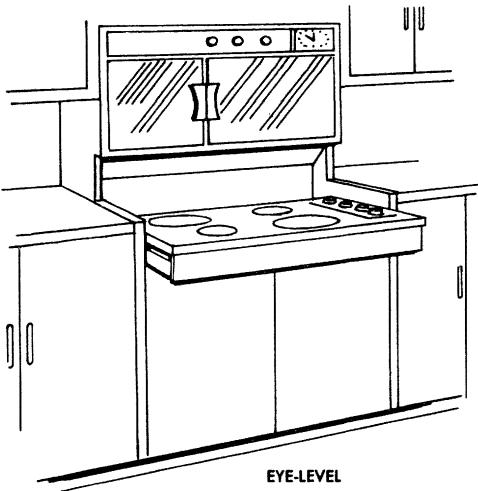
BUILT-IN OVEN



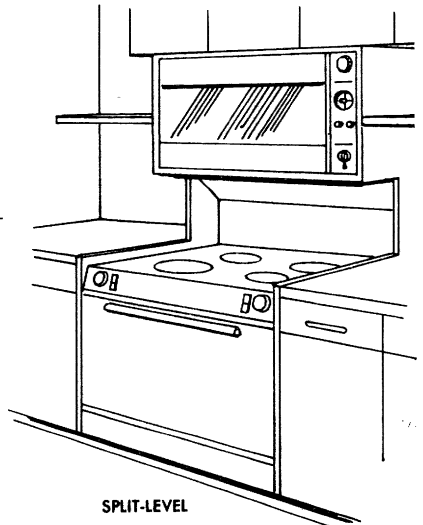
BUILT-IN COOKING TOP



DETACHABLE THERMOSTATIC CONTROL



EYE-LEVEL



SPLIT-LEVEL

range utensils should be a good conductor of heat so that the bottom of the utensil will heat quickly and evenly, with no hot spots on which food can stick and burn.

The bottoms of utensils should be flat and remain flat after heating to make good contact with the heating unit. The sides should be straight to conserve heat.

Covers should fit closely to hold steam within the pan and reduce cooking time. Covers, knobs, and handle grips should be of heatproof material and be easy to grasp without burning the fingers.

The handle should be firmly attached so that it cannot come loose and turn in the hand.

Pans are easier to clean if they have a pronounced curvature between the sides and bottom and no ledges or rivets on the inside where food can collect.

THE SIZE OF THE PAN should be matched to the size of the burner. Thermostatically controlled surface units are calibrated to operate with medium-weight aluminum utensils. If skillets of other materials are used, you will have to modify the temperature settings.

Utensils to be used in the oven should be selected to produce the product desired.

For double-crust pies, glass, Pyroceram, anodized aluminum, or porcelain enamel will give crisper crusts.

For cakes, pans with dull, rough bottoms and shiny sides will give the largest volume and tenderest crumb.

For cookies, use a moderately shiny sheet of a size that allows 2 inches of free space in the oven on all sides for circulation of heat.

Casseroles of glass, Pyroceram, and porcelain enamel are good selections.

When you use several pans in the oven at the same time, you should stagger them to allow for proper circulation of heat and place them so they do not touch each other or the sides of the oven.

IN ELECTRONIC RANGES, cooking times are one-third to one-tenth those of conventional ranges.

High-frequency microwaves penetrate the food to a depth of about 2.5 inches from all sides. The air in the oven is not heated.

Glass, china, and paper transmit microwaves, but metals reflect them. Cooking in a microwave oven, therefore, must be done in glass, china, or paper containers.

Because food does not brown in an electronic oven, some electronic ranges have incorporated a high-speed, conventional broiler in the top of the oven for browning. Ovens available in 1965 are about the size of a separate built-in oven and operate on a standard 240-volt range outlet.

MANY PORTABLE ELECTRIC cooking appliances supplement or substitute for the kitchen range. Most of them provide fast, controlled heat. Most have relatively high wattages. To use them efficiently, the home wiring system must be adequate to carry the wattages that are indicated on the nameplate of the appliance.

Some portable appliances have permanently attached heat controls. Others have detachable controls.

Those with detached controls have a water-sealed heat unit, so that you can immerse them completely when you wash them. The same heat control is interchangeable among appliances of one manufacturer but not with other brands.

Select portable cooking appliances that have easy-to-grip handles and heat-resistant, nonmar feet, with adequate airspace beneath the appliance to prevent damage to tabletops.

Frypans are of several sizes and may be round or square. Covers are sometimes sold separately and may have a domed or a shallow cover. A domed cover will make the pan usable for pot roasts, fowl, and stews.

Some lids are vented to allow steam to escape and permit browning. Some skillet covers have broiling units that

make the skillet a broiler as well. Large skillets are easier to handle if they have an auxiliary handle opposite the long handle, or have two side handles, as on a casserole.

An electric griddle should be large enough to eliminate frequent refills but not so large that it is awkward to handle or heats unevenly at the corners and around the outer edge. A grease-drip container that holds 6 ounces and is large enough at the top to insert a spoon for basting, and with provision for emptying hot fat from the container is desirable.

On a rotisserie, foods are cooked as they turn on a motor-driven spit. A rotisserie may also be used for broiling. Some, which have a second heating unit in the bottom and a means of closing the spit opening, may also be used for baking. Some of the models have a thermometer on the end of the spit to indicate the interior temperature of the meat, a timer, and a switch that turns off the motor when the rotisserie is being used for other cooking. Some are large enough to handle a large fowl or roast.

Portable ovens and broilers come in a variety of sizes and wattages. Many are equipped with thermostats. Some have a unit for baking and one for broiling. One has a single unit that serves for baking and broiling; the oven itself is turned upside down to broil. Most controlled-temperature ovens are satisfactory for baking a single pie, a cake, or casserole, biscuits, and potatoes and so may make unnecessary a second oven in a range.

Electric coffeemakers are of the percolator or vacuum types. Most cut to a keep-warm temperature after brewing. Some have signal lights, flavor selectors, and reheat settings.

Coffeemakers make the best brew when they are used to capacity. The size you buy, therefore, should provide the number of servings you need frequently. Most deliver fewer servings than the rating indicates and disregard the ratio of coffee to water for top-quality brew.

To determine the number of servings a coffeemaker delivers, measure the number of ounces of cold water required to reach the full mark, divide by 6 to determine the number of servings, then use two tablespoons of coffee for each serving.

Points to check on percolators: Securely fitting lids, glass perk top, and tight-fitting basket tube; a basket large enough to hold the required amount of coffee when the grounds are wet; and a tight-fitting spreader plate to prevent the grounds from floating off into the brew.

Vacuum types should have filters that are easy to clean. (MILDRED G. ARNOLD)

Refrigeration

REFRIGERATORS are cooled by the absorption of heat required to change a solid to a liquid (as in a refrigerator that uses ice) or a liquid to a gas (as in the mechanical refrigerator). The heat is disposed of outside the refrigerator.

The mechanical refrigerator uses electricity, gas, or kerosene as its source of energy.

The electric type has moving parts, which become worn and may be slightly noisy in operation.

Gas or kerosene refrigerators have additional flame heat to dispose of.

THE COST OF ENERGY and the cost of the refrigerator itself are factors to consider. The initial cost of the electric refrigerator is less than that of the other mechanical types.

The types of mechanical refrigerators are all-refrigerator, conventional, and combination refrigerator-freezer.

In the all-refrigerator, most of the interior space is above freezing, 32° F.