Pots and Pans for Your Kitchen 1950

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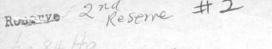
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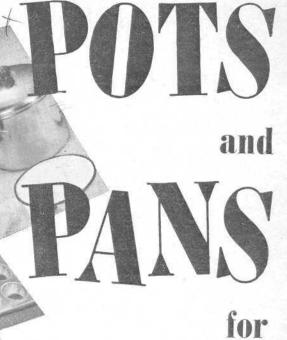
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Home and Garden Bulletin No. 2 Startment of Agriculture

Pots and pans

for your kitchen

Because cooking is a regular three-meals-a-day job, the homemaker will do well to select her pots and pans with as much care as any craftsman gives to the choice of his working tools.

For good service, a pan must be sturdy enough to take the wear that it will receive. It must also be convenient to use and care for and suitable for the kind of cooking to be done in it. Buying pans of good quality for regular use is usually an economy in the long run. On the other hand, it may be sheer extravagance to pay for top quality in seldom-used pans. Quality can be judged to some extent by appearance, but to be sure of what you are getting, look for utensils with descriptive labels.

Utensils that can serve several purposes are better buys than specialty pans from the standpoint of both money invested and storage space. Anyone equipping a kitchen for the first time would do well to start with a few good-quality, general-use pans and add other pieces as the need for them becomes apparent. Many an experienced homemaker might well sort out her utensil cupboards and retire pieces that are not paying their way, thus making room for a new pan or two that would give valuable service.

You may prefer pans of different materials and designs—each selected for a special purpose—or you may want matched pans, which may be bought in individual pieces or in sets. It all depends on what values you place first. In considering a set, be sure that each piece is one you need—a few unused pieces can wipe out any saving you might make in purchasing a set.

Materials for cooking utensils

Each of the materials commonly used for cooking pans has its good points. Knowing the characteristics of different materials, together with your own experience and perhaps that of friends, will help you decide which to choose for different uses.

• Aluminum. A naturally soft metal, aluminum can be used for pots and pans of all shapes. The addition of small amounts of other metals to make aluminum alloys, and various manufacturing processes, give the better wares resistance to bending and warping. Aluminum utensils are either cast or formed from sheet metal.

Sheet aluminum is made in different thicknesses or gages. Pans made from medium to heavy gages are very durable. Utensils of very light weights are cheapest, but too thin to stand up under daily use. Thin metal is satisfactory for pans that are used only occasionally. For ovenware, lighter gage aluminum than that found in good-quality top-of-stove pans may be used.

Cast aluminum is heavier than most of the sheet aluminum used in pans. It is rigid, does not warp, is very durable, and in good quality resists pitting. It is not often used for baking pans.

Whether cast or sheet, aluminum distributes heat evenly. Except for large pieces of cast or extra-heavy-gage sheet metal, aluminum utensils are light enough to be handled easily.

Brightly polished aluminum ovenware reflects heat so that food browns very lightly. Unpolished or dull-finished aluminum absorbs heat and produces a browner crust.

Though easily darkened by alkalies in foods and water, aluminum responds readily to polishing with metal wool. (On a highly polished or chrome-plated finish use only a fine cleansing powder.) Rubbing with ordinary household acids—vinegar, lemon juice, cream of tartar—will brighten darkened areas. Or cook an acid food such as rhubarb or tomatoes in the pan. There is no evidence that the darkening of aluminum has any harmful effect on food or that aluminum can have any harmful effect on health.

Do not leave salty foods or liquids standing in aluminum; they may cause pitting of the metal.

- Copper. Though an excellent conductor of heat, copper is seldom used by itself in utensils, mainly because of the work of keeping it bright. Copper is often applied to the bottoms of utensils made of other metals to improve evenness of heating. All-copper teakettles sometimes have chrome-plated tops for ease of upkeep.
- Cast iron. Cast iron is an old favorite for fry pans and Dutch ovens. It heats slowly but quite evenly. In large pans it is heavy to handle. Cast iron improves with use—fat fills the pores, making food less likely to stick and the pan less likely to rust.

Some cast-iron utensils come seasoned, ready to use; if seasoned, a utensil will be so labeled. Others need to be rubbed with unsalted fat and left in a warm oven for several hours before using.

To prevent rusting, dry cast iron thoroughly after each use.

• Dark sheet metal. Some inexpensive fry pans are made of dark sheet iron or steel. They are light in weight but do not heat evenly and are likely to warp and rust.

• Russia iron. Russia iron, sheet iron with a smooth black coating, is used for ovenware. It is satisfactory for such utensils as drip pans but produces too dark a browning for most baked foods.

Never scour Russia iron; scouring may remove the protecting oxide that keeps the metal from rusting.

• Stainless steel. One of the newer materials, stainless steel (a steel alloy) is still rather expensive, but practically indestructible. A utensil made entirely of stainless steel tends to become too hot in spots so the heat must be kept low to prevent burning food in top-of-stove pans. To improve evenness of heating, copper or aluminum is often applied to the undersurface, or a special heat-distributing core is used in the steel.

As yet few home baking pans are made of stainless steel. Because it is a darker metal than aluminum, it absorbs heat more readily and produces a darker crust on baked foods.

Overheating turns stainless steel dark in spots. This darkening is likely to be permanent, but will not impair the usefulness of a utensil. Rigorous cleaning methods do not harm the metal.

• Tinware. As a material for oven use, tinware, which is steel or iron coated with tin, is well known. It is not suitable for top of stove use. Cheap grades of tinware may have pin-point holes in the coating that cannot be seen until rust appears at these spots.

When bright and new, tinware reflects oven heat, browning food lightly. With use, the ware darkens and browns food more. Some tinware—usually in light weights—has a pressed-in rippled or honeycomb pattern, which helps the pan resist warping.

Always wash tinware and dry it well immediately after using. Do not scour or scrape it with sharp tools; such cleaning methods may cause breaks in the tin coating and the metal base will rust.

• Enameledware. The surface of enameledware is really glass fused onto a steel base by firing at high temperature. It is smooth and non-porous, easy to clean. Better enameledware is resistant to acids and not so readily marked by metal spoons as is the lower grade ware. It is also far more resistant to chipping.

Quality in enameledware depends on the number of coats of enamel and the thickness of the base. Dark blue or gray utensils are often made with a single coat of enamel; utensils of other colors, or white, usually have one dark base coat and two coats of the surface color, each fired separately. When buying, ask about the quality of the base and number of coats of enamel.

Enameledware is most used for saucepans, kettles, and such utensils as bowls. Except for covered roasters, enameledware is not often used for ovenware. For baking pans it gives too much browning to be generally satisfactory. Enameledware cannot be used for searing meat or frying unless it is a type made especially for that purpose.

The clue to care of enameledware is found in its construction—treat it as you would glass. Avoid sharp knocks and see that utensils do not boil dry.

Before washing enameledware, soak it when necessary to loosen sticking food. Baking soda on a damp cloth will remove discolorations. Coarse scouring powders or metal pads may scratch the glazed surface, destroying one of the best features of the ware.

• Glass. A familiar and popular material for ovenware and for coffee makers and teapots, heat-resistant glass has more recently appeared in saucepans and double boilers. Its unique advantage in range-top use is its transparency—foods and water level can be seen without removing the cover.

Glass oven pans absorb heat readily and hold it well, making them good for serving as well as cooking food. Foods baked in glass are usually crusty and rather heavily browned. If you do not want the heavy crust you can use an oven temperature 25° lower than for baking in pans of light-colored metal. (Recipe temperatures are commonly based on the use of aluminum.)

The hard, smooth surface of glassware is easy to keep clean. Soak utensils to loosen stuck-on food. Use fine cleaning powder rather than rough cleansers that might scratch the surface. Utensils of glass should be protected from sharp changes in temperature and from boiling dry.

Always put food, fat, or water into a glass utensil before heating it—don't pour liquid into a hot, dry pan. Before putting a glass utensil over direct heat, be careful to have the outside dry. Always set a hot pan on a dry surface and use dry pot holders.

Use glassware on top of the range only if it was made for that use—there is a difference between top-of-range and oven glassware. Be sure to read and follow directions that come with the glass utensils you buy; breakage-replacement guarantees are valid only when such instructions are followed.

• Pottery. Casseroles and custard cups are the most common cooking utensils made of pottery. Pottery is usually glazed both inside and outside to give it a smooth, easy-to-clean surface. However, Frenchtype pottery is glazed only on the inside. Pottery is especially good for baking dishes that go to the table because, like glass, it holds heat well.

Like glass, pottery is easily cleaned by soaking and washing. To prevent breakage, it needs to be protected from sudden changes in temperature.

Pans for range-top use

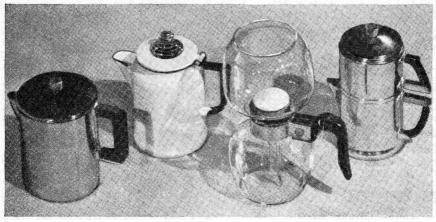
Whatever the type of utensil you need for use on top of the range, you will find a wide choice in designs as well as materials. Weigh the advantages of each and then decide which will suit you best. Look for sturdiness because top-of-stove pans are used constantly and are subjected to direct heat, often at high temperatures.

Coffee makers

In many homes the coffee maker is the most frequently used of all utensils. You will make the best coffee by using the recommended grind and carefully following directions for your particular coffee maker. Best extraction of flavor occurs if water is a few degrees below boiling when it is in contact with ground coffee.

Coffeepot, percolator, drip coffee maker, and vacuum coffee maker are the common types. The important difference in them is the way in which the water contacts the ground coffee.

● Coffeepot. The coffeepot is a simple utensil in which boiling water and coffee are combined, stirred, and allowed to steep for a few minutes. It is hard to keep the temperature below boiling in a coffeepot, and the coffee is likely to be muddy and rather bitter. Unless your family definitely prefers coffee made in a pot and you know from experience that you can get good results, you may be better satisfied with some other type of coffee maker.



Coffeepot, percolator, vacuum and drip coffee makers—each comes in different materials and sizes; choose the one that suits your needs.

Coffeepots are most often made of aluminum or enameledware, but come also in stainless steel.

• Percolator. Though the percolator may resemble the coffeepot on the outside, it has inner fittings that change the method of making coffee. A perforated metal basket holds the ground coffee near the top of the utensil; a tube extends from the bottom through the center of the basket. When water is heated it rises through the tube, then sprays over the coffee, extracting flavor as it seeps down through. The process is continuous as long as the percolator is on the heat. Usually 5 to 10 minutes of percolating are enough for 4 to 6 cups of coffee.

The design of the coffee basket is important. Too many holes can let the water run through before it has time to extract full flavor from the coffee. Too few holes may permit the water to accumulate in the basket and flood over the top, carrying coffee grounds with it. (Too much heat also can cause flooding by too rapid percolation.)

In some percolators spreader plates over the coffee baskets help distribute water evenly. They also keep ground coffee from being washed overboard if percolation becomes too rapid. The glass top on a percolator also helps spread the water.

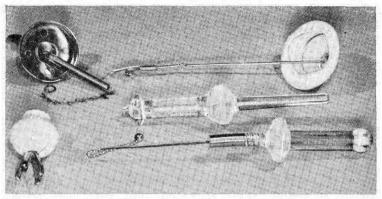
In the most common type of percolator, the upright tube is attached to a domed plate that rests on the flat bottom of the utensil. Before percolating starts, all of the water must be near boiling, and unless heat is very carefully controlled, the brewed coffee may boil.

Most electric percolators, and some of the more expensive nonelectric models, have a valve instead of a domed plate at the base of the tube; the valve rests in a cup in the bottom of the percolator. Percolating starts almost immediately because only the water in the cup has to be heated to start the action. In this type the brew is not so likely to reach the boiling point, but the percolator is a little harder to clean.

Percolators are made of sheet or cast aluminum, enameledware, stainless steel, or glass.

• Drip coffee maker. Drip coffee is considered by many to be the simplest kind to make. A drip coffee maker consists of three parts, plus a cover. A middle perforated section holds the ground coffee. Over it is a container for hot water, with a few well-spaced holes in the bottom to let the water drip slowly over the coffee. The finished brew collects in the bottom pot. Water that is boiling when poured into the top container reaches the ground coffee at the right temperature—just below boiling.

The drip coffee maker may be of aluminum, stainless steel, enameledware, or pottery, or it may combine a pottery pot with aluminum containers for coffee and water.



Filters for vacuum coffee makers, whatever their shape or material, must let liquid coffee pass and hold back the grounds.

• Vacuum coffee maker. A vacuum coffee maker is somewhat like an hourglass in shape. It has two bowls, the lower one for water, the upper one for brewing coffee. At the bottom of the upper bowl is a funnel-like tube into which a filter is fitted. The tube should reach to about half an inch of the bottom of the lower bowl to permit most of the water to rise, yet keep enough in the lower bowl to prevent boiling dry. A gasket may be used to insure a tight seal between the bowls, or the seal may be made by two ground-glass surfaces.

Water is measured into the lower bowl, the upper bowl is put in place, and the ground coffee measured into it. The device is then placed on a source of heat, either the kitchen range or the electric unit that comes with some vacuum coffee makers. Some electric models have built-in heating units and operate automatically.

As the water heats and steam is created, the pressure forces the almost-boiling water up the tube onto the coffee. After a minute or two, the heat is turned off or the coffee maker is removed from the stove. The slight cooling of the lower bowl reduces the pressure so that the liquid—now brewed coffee—flows back into the lower bowl. The filter holds back the coffee grounds.

In the early vacuum coffee makers, the lower bowls had narrow necks; now, most of them are wide enough to make washing easy.

Filters may be of cloth on a pottery block or metal frame, or of stainless steel, pottery, plastic, or glass. Often filters are held in place by a spring; glass rods may depend on their own weight. Different types of filters are illustrated above.

The cloth filter gives the clearest coffee but it is more of a nuisance to care for. If it is not kept fresh and clean, it may produce an off-flavor that is worse than cloudiness.

Vacuum coffee makers are of glass, aluminum, stainless steel, or enameledware, or they may be a combination of glass with one of the other materials.

• Choosing a coffee maker. Choose the type of coffee maker that seems to you the most convenient to use and that makes the kind of coffee your family likes. A coffee maker the right size for the family is more convenient for everyday than an oversize one—and coffee makers, except the coffeepot and valve-type percolator, work best when used at more than half their full capacity. When company comes, make coffee twice, or have a second coffee maker for special occasions.

Look for a coffee maker with a broad base so that it will stand firmly; watch this especially in tall drip and vacuum types, which may be top-heavy when there is water in the upper container.

See that the handle is comfortable to hold and placed so that hot coffee may be poured easily. A handle attached close to the bottom of the coffee maker should have a metal shield to protect it from burning. Be sure the cover will not fall off when the pot is tipped for pouring. A lip or spout with a rather sharp point is easy to pour from and not likely to drip.

Look for smooth surfaces that can be kept clean easily. Seams or crevices may collect sediment which will become rancid and give an off-flavor to coffee.

• Care of the coffee maker. Good coffee can be made only in a clean coffee maker. Off-flavors are sometimes blamed on the material of the coffee maker when poor cleaning is really responsible. After each use wash the coffee maker with hot water and soap or other dishwashing detergent and rinse with clear water. Use a brush to clean any parts that are hard to reach otherwise. If stains appear, remove them by methods recommended for the material from which the utensil is made.

Teapots

Teapots are most often of glass or pottery—materials that hold heat well—but they come also in aluminum and enameledware. Or the lower part of a coffee maker may serve as a teapot. Some women find it an advantage to have a teapot that can be placed over direct heat for boiling the water for tea. If you use loose tea, you may want a pot with a straining device.

With tea, quality of the brew is not so dependent on the size of the pot as with coffee. However, a pot that holds the right amount of tea for the family is most convenient.

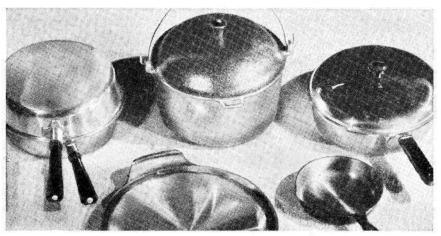
Fry pans

Pans for frying food—you may know them as frying pans, fry pans, skillets, or spiders—are in daily use in many homes. They come in sizes from 6 to 12 inches in diameter; most are between 7 and 10 inches. A large pan is used most often, but it is convenient to have a smaller one, too. If the fry pan is to be used for pancakes and french toast as well as for meat, it must be extra large, which makes it awkward to handle; with a griddle for these purposes, the fry pan can be a little smaller.

Although frying is done in an uncovered pan, it is usually worth while to buy a fry pan with a close-fitting cover so that it will be equally satisfactory for braising and other cooking methods that require moisture. For thick pieces of meat, a domed cover provides the needed height; a deep pan with domed cover is sometimes known as a chicken fryer. In a twin fryer, one pan forms a cover for the other. Each may be used separately as an uncovered pan.

• Materials. Because fry pans are used right over the heat, often without water, they must be of materials not damaged by high temperatures. For even browning of food a material that distributes heat well is a requirement, particularly if the pan is larger in diameter than the burner or heating element on which it is used.

Cast aluminum and cast iron are good for fry pans, but large pans of these materials may be heavy to handle. Heavy-gage sheet aluminum is good, too, and easier to lift. Stainless steel is also lighter in weight than cast metals; to be satisfactory for fry pans, it should have a heatdistributing surface or core.



The fry pan family includes a twin fryer, deep Dutch oven, large fry pan with tight cover, an open griddle, and a small pan without a cover.

Lightweight or poor-quality sheet metals are likely to warp. Warping causes the pan to teeter on the range so that the fat runs to one side and the food cooks unevenly and sticks to the pan.

• Handles. The handle is an important feature of a fry pan—for safety you must be able to hold a hot pan securely, without tipping. Be sure that the handle is long enough to afford a good grip, smooth enough for comfort, and shaped so that it will not turn in the hand.

On cast iron fry pans the handle is cast with the pan. Cast aluminum pans usually have shanks cast with the pan; pans of sheet aluminum or stainless steel, have shanks that are welded or riveted on. Cast or welded shanks leave the inside of the pan smoother than do riveted shanks. Handles of heat-resisting plastic or wood are attached to the shanks. See that shanks are long enough to protect the handle from burning and that handles are firm and secure. (See illustration, p. 14.)

A knob on the cover should be large enough and so shaped that you can grasp it firmly with a pot holder without touching the hot metal.

• Special tip on care. Do not pour liquid into a very hot fry pan—the sudden change in temperature may cause warping. Turn off the heat or set the pan aside for a minute or two before pouring in the liquid. Spattering of fat and danger of burns will also be reduced.

Dutch ovens

Dutch ovens serve many of the same purposes as heavy, covered fry pans, but since they are deeper they will accommodate thicker pieces of meat. They are useful too for stews and soups.

Dutch ovens are made of heavy aluminum, stainless steel, or cast iron, and have close-fitting covers. The utensil usually has either two side-handles or a bail handle with one side handle for balancing. Choose the type of handle that seems to you the easier to manage.

Griddles

If you often need a large surface for cooking pancakes and the like, a griddle is the answer. For even browning, the material must be one that distributes heat well, and is heavy enough not to warp. Cast or heavy sheet aluminum is good, as is magnesium alloy, a new material which is used and cleaned like aluminum. On coal ranges, where most of the undersurface of the griddle is in contact with the hot stove, cast iron is also satisfactory.

Saucepans, saucepots, kettles

The main difference between saucepans, saucepots, and kettles is in the type of handle; all three are top-of-range utensils that have similar uses.

Pans with long single handles are called saucepans. Saucepots have a handgrip on either side instead of the long handle. When both hands are needed to lift a filled pan the two handgrips are more convenient than the single handle. For this reason, pans larger than 3-quart size are usually of the saucepot type.

Kettles are utensils with a bail-type handle. They come in sizes larger than saucepans and saucepots, though there are small kettles as well as large ones. A large kettle may have a side handle in addition to the bail. It is a help in steadying the kettle when lifting it and for tipping it when pouring.

Any kitchen needs at least three saucepans or saucepots. One each of 1-, 3-, and 4-quart capacities is usually a good selection. Another of whatever size you use most is desirable. You may prefer saucepots to saucepans because handles of saucepans sometimes get in the way of other pans on the range or extend out beyond the edge of the range where they are in danger of being run into by passersby. However, saucepans are easier to hold for pouring or stirring.

In addition to saucepans and saucepots, most homemakers need a large kettle for such purposes as making soups or stews in quantity, cooking a whole ham, or blanching vegetables and fruits for canning or freezing.



Kettles, saucepans, saucepots of many sizes are made of aluminum and its alloys, stainless steel, and enamel. Saucepans come in glass, too.



Handles for saucepans: Steel handle on an aluminum pan; glass handle attached with metal band to a glass pan; handle enameled same as the pan; plastic handle on metal shank, welded to a stainless-steel pan.

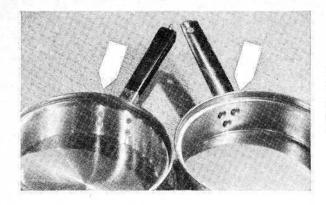
For general use, choose pans with bottoms broad enough to cover the burner or heating unit so that heat will be used efficiently. Of course you may need also a pan of smaller diameter for heating small quantities of food.

For cooking vegetables by the recommended method—in only a little water—it is best to have pans that will be at least half filled with the vegetable. With larger pans you have to use more water and usually have more liquid left than can be served.

- Materials. Saucepans, saucepots, and kettles may be made of most of the materials satisfactory for use on top of the range—aluminum, enameledware, stainless steel, or glass. With these utensils evenness of heat distribution is not quite so important as with fry pans because the boiling of liquid in the pan helps to distribute heat. However, food is less likely to stick if the material heats evenly.
- Handles. Saucepans are most convenient to work with when handles are of materials that do not become too hot to touch, so you don't have to bother with pot holders. Inexpensive aluminum pans usually have handles of steel. Handles of more expensive pans are often of plastic, which stays cool. Glassware for range-top use may have glass or plastic handles attached with metal bands or clamps. The handles of most enameledware saucepans are welded to the steel base and then enameled along with the pan.

When you select a saucepan, pick it up to find out whether the handle is long enough to be grasped firmly, large enough so that your fingers are not cramped in holding it, and with no sharp edges to cut your hand. Metal rivets or shanks in a plastic handle may become uncomfortably hot, so be sure your hand will not be likely to touch them.

In choosing a saucepot, be sure to notice whether the side handgrips are large enough and so designed that you can grasp them easily and hold them securely.



Left, welded handle; pan is smooth inside. Right, riveted handle showing round rivet heads inside the pan.



Left, the inset cover fits into rim of the pan. Right, the vaporseal cover rests in a trough at rim of pan.

A secure handgrip on the bail of a kettle is a convenience. The bail should lock in an upright position so that the kettle will not sway when it is lifted. The upright position also helps keep the handle cool while the kettle is on the range. If the kettle has side handles, make sure that they are of a size and shape to be grasped easily with pot holders.

• Covers. For most cooking done in a saucepan, saucepot, or kettle a well-fitting cover is important, though a small pan used mostly for heating food and for making sauces may not need one. A cover keeps steam in the pan and makes for uniform cooking, permits cooking with low heat in the smallest possible amount of water. A cover that fits tightly is far more effective than one laid loosely on the pan.

See that cover knobs are large enough to get hold of easily without touching the cover, or if not of heat-resisting material, large enough to grasp with a pot holder or designed to be lifted with a two-tined fork.

• Construction features. Look for pans and kettles that are easy to clean. Where handles are attached there may be dirt-catching creases.

Welding joins handle to pan more smoothly than riveting and leaves the inside of the pan smooth. With riveting, the rivet head is on the inside of the pan.

To make stirring food and washing the pan easy, side and bottom should meet in a curve rather than a sharp angle.

Notice the balance of the utensil. A handle that is too heavy may cause a pan to tip. A pan that tips easily when empty is likely to tip when it contains only a little food or when it is set on an uneven surface. A pan that is well-balanced with the cover on may be an annoying tipper with the cover off.

A flat bottom helps to keep a pan from tipping, but even more important, it makes good contact with the range so that the pan heats well. When a pan is warped these advantages are lost.

Measuring marks on a saucepan are a convenience. Such marks are sometimes stamped into sheet metal or fired into enamel.

• Care. For general care of saucepans, saucepots, and kettles follow the directions on care of the material from which the utensils are made.

To avoid damage to pans from boiling dry or burning, use low heat—as long as food is boiling, you can't hurry the cooking by increasing the heat. If a pan does burn, be sure to let it cool until you can hold your hand on it before you put water into the pan or the pan into water. If doused with water when hot, metal is likely to warp, enameledware to chip, glassware or cast metal to break. Let a burned pan soak for half an hour or so, then loosen stuck-on food with a wooden spoon.

Pans of enamel, glass, or steel may be filled with water with a little soap or soda added, then heated slowly. Omit soap or soda when soaking an aluminum pan or you will make more work for yourself because the metal will darken. A brush will remove food from the hard surface of glass or enameledware without scratching it. Metal wool pads may be used on aluminum or steel.

Waterless cookers

Waterless cookers are utensils that make efficient use of heat and retain steam so well that moisture for cooking is supplied by the food itself or by the water clinging to vegetables after washing. The cookers may be of special design, but well-constructed saucepans or saucepots with tightfitting covers may be used.

Waterless cooking requires that heat be kept at the point where steam is active enough for cooking without being strong enough to raise the lid and escape.





Deep, narrow inset pan of double boiler at left is convenient for beating and stirring. Wide, flat-bottomed inset pan at right is a better shape for use as a separate pan.

Double boilers

A double boiler provides a way to cook foods that tend to stick or are damaged if allowed to boil—long-cooking cereals and milk and egg dishes, for example. Some women rarely use a double boiler because with the newer ranges heat can be better controlled than with old-time ranges. These women may want a double boiler designed to be used as two separate pans. In this type, the inset pan must have a flat bottom. Women who use a double boiler a great deal may prefer the deeper, narrower inset. It is more convenient for stirring and beating, but less useful as a separate pan.

The part of the inset pan below the supporting bulge should be deep enough so that a large proportion of the pan can be surrounded by steam to provide a good-sized cooking area.

Both parts of a double boiler must have handles so they can be lifted separately. Be sure that the handle of the lower part is convenient for lifting the combination as a single unit, or that the two handles are arranged so that they can both be grasped easily with one hand.

The materials used for saucepans are satisfactory for double boilers. With aluminum, the inside of the bottom pan is hard to keep bright—the constant use of water darkens it. Glass offers an advantage in that it is always possible to see whether the water is boiling—important when making custards and sauces for which the water should be almost but not quite boiling. Enameledware is a popular material for double boilers too.

Teakettles

Though unimportant to some homemakers, the teakettle is indispensable to others. A teakettle of water on the range can take care of small cooking needs and save many steps, especially if the kitchen water supply is some distance away.

When the teakettle is used primarily for boiling water for coffee or tea, the whistling type may be preferred, since it leaves no doubt as to when the water is boiling. "Whistlers" are usually of 2- to 4-quart capacity. If the teakettle is used to heat water for dishwashing and other purposes a larger one is needed; you can get them as large as 8 quarts. Because a big kettle full of water is heavy to lift, don't have one larger than you need.

Look for a handle large enough and in a position to be grasped easily. If there is a bail, make sure that it can be snapped into an upright position where it will stay cool and be easy to reach over other utensils. Look for smooth easily cleaned outside surfaces; a teakettle on the range collects spattering grease.

The teakettle spout should be large enough to fill under the faucet. If water is hard and scale-forming, the kettle needs a top opening also so that the inside is accessible for cleaning. Be sure the opening is large enough for convenience, and also that the lid will stay in place when the kettle is tipped.

Frequent washing of the inside of a teakettle helps to prevent the accumulation of mineral deposits. To remove deposits, boil a mixture of equal parts of vinegar and water in the kettle, cool, and let stand several hours. This treatment loosens the scale so that it is usually possible to scrape it off with a wooden spoon.



Teakettles that whistle—like the two on the left—are usually small; larger ones have removable lids.

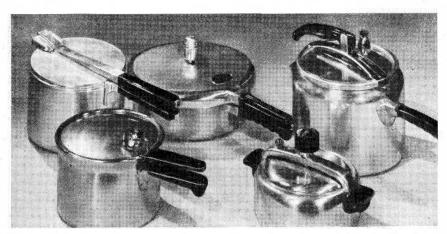
Pressure cookers

The first pressure cookers manufactured for home use were large affairs designed especially for canning, and too cumbersome for general use. These are now commonly known as pressure canners, and the newer, smaller ones as pressure cookers or saucepans.

Pressure cookers are so called because they hold steam inside so that pressure is built up. As a result, temperatures are higher than in an ordinary pan, and cooking is speedier. Most time is saved when the cooker is used for foods that need long cooking—dry beans, less tender meats, and poultry. At high altitudes where food cooks more slowly because of the lower boiling point of water, the pressure cooker offers a special advantage.

In using a pressure cooker, remember that steam cooking cannot be expected to duplicate the results of open-pan oven cooking.

- Materials. Because the pressure cooker does its work by steam pressure—a powerful force—the utensil must be made of good-quality materials and constructed carefully and sturdily. Heavy-gage sheet aluminum or aluminum alloy, cast aluminum, or stainless steel are the materials generally used.
- Sizes. Most manufacturers make cookers of approximately 4-quart capacity. A few make smaller ones of about 2½ quarts and several are now making larger ones of 6- to 8-quart sizes. The little cookers hold enough of most vegetables for a small family, but if you want to use the cooker for meats, the medium or large sizes will probably be more satisfactory. A pressure skillet, designed especially for meat cookery, is



Some of the many pressure cookers on the market: 4-quart sizes in aluminum and stainless steel, broad skillet, 7-quart and $2\frac{1}{2}$ -quart cookers.







Pressure cooker closures:

- 1. Handles draw together, lock cover.
- 2. Flexible lid draws up to pan rim.
- 3. Rigid oval lid draws up to rim.
- 4. Encircling clamp holds cover on.



broader and shallower than a pressure saucepan. Its larger diameter makes it good for the preliminary browning of meat and it accommodates many cuts very nicely.

• Closures. One of the first things you will notice in pressure cookers is the different ways of closing. Whatever the method used, the cover must fit the pan tightly. A gasket of rubber or rubberlike compound works like the rubber ring of a fruit jar to fill the space between cover and pan and prevent leakage of steam.

In one type of cooker the cover has a handle matching the handle of the pan. In closing the cooker, the cover is placed on the pan with its handle a little to one side of the handle of the pan, with lugs on the cover matching notches on the pan. As handles are drawn together, the cover is locked in position. Cookers with this type of closing have straight or almost straight sides.

Another type of cooker is slightly smaller at the top so that the lid fits inside. The lid, of flexible metal, has an arched shape when not on the cooker. It is slipped into the pan at an angle and drawn up against the rim. Pressure in the pan pushes the lid up all the harder and makes the seal tighter. A variation of this type is a rigid lid slightly oval in

shape. This too is slipped into the pan and drawn up against the inside of the rim.

In still another type of cooker, the cover and pan are held together by an encircling clamp. The pan has straight sides.

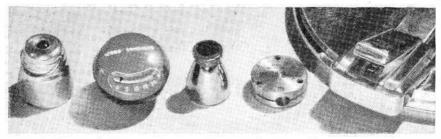
The cooker with inside closing has an extra safety feature in that the lid cannot be removed when there is pressure in the pan. The straight-sided pan is easier to stir food in and to pour from.

• Pressure indicators and controls. A pressure cooker may have either a pressure indicator or a pressure control.

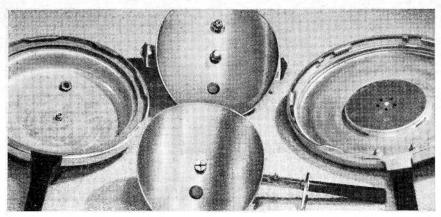
Indicators or gages are devices that show the number of pounds of pressure in the pan. The user adjusts the heat to control pressure. If your range is one on which you can control heat accurately, and if you can see to read the gage clearly, you can use this type of cooker successfully. Otherwise a cooker with controlled pressure will be a better choice.

Pressure controls are either weights or springs. When steam pressure passes the allowed point it lifts the weight or stretches the spring enough to let a little steam escape and so keeps pressure from going higher. Each cooker has a characteristic sound to indicate that it is operating at pressure—the hissing or puffing of steam or the rocking of a weight. Too rapid a hissing or rocking is your signal to reduce the heat. Letting it go wastes heat and will boil away the liquid from the cooker. If heat gets too high the mechanism may not be able to exhaust the extra steam fast enough to keep pressure down to a safe point.

A cooker with a pressure indicator can be operated at any desired pressure—provided the heat can be held at the right point to maintain it. Cookers with controls operate at definite pressure, usually 15 pounds, but some give a choice of pressures from 5 to 15 pounds. For cooking fresh and dried vegetables, dried fruits, and cereals, the 15-pound pressure is generally used in any cooker. Meats may be cooked at 15 pounds or at lower pressures. The lower pressures require longer cooking times, but many consider that results are better. For canning, a cooker that can be operated at 10 pounds pressure is necessary.



Left to right, two pressure indicators, three weight-type controls



Upper metal knob in left cover and rubber buttons in center covers are safety plugs. Holes which can be seen in all covers are steam vents.

• Safety devices. Pressure cookers are equipped with safety devices to relieve excess pressure if for some reason the regular controls should fail to operate. If your cooker is used correctly, the safety release will probably never be called into use, but be sure there is one.

Two types of safety release are in general use—a plug of rubber or rubberlike plastic and a small metal plug. If pressure goes too high the rubber or plastic plug is blown out. The metal plug will melt at too high a temperature whether due to the pressure or to the cooker boiling dry. With either plug, pressure is released rather violently, but before it reaches the danger point. In some cookers the plug is placed under a bridge or handle brace so that if it blows, the food will be directed downward over the surface of the cooker instead of upward where it might strike the user or the walls.

In the cover of a pressure cooker is a very small vent tube leading to the controlling device or indicator. If this tube becomes clogged, the indicator or control fails to operate and there is no way of knowing when there is pressure in the pan. As a protection against clogging, the vent tube in some cookers extends a little beyond the inner surface of the cover and has one or more side openings as well as the main one. A bit of food might stop up one opening but wouldn't be likely to close them all.

• Handles. Because a pressure cooker gets hotter than ordinary topof-range utensils, good handles are especially important. If cover and pan have matching handles, try lifting the cooker with the cover closed. Notice whether you can reach around both handles comfortably, with a good grip and without pinching your hand. Notice too whether the handles are long enough so that you can hold them with both hands without touching the hot metal. Some cookers have small handles on opposite sides. These do not get in the way of other pans on the range as long handles do, and are more attractive if the cooker goes to the table. They are less convenient for pouring and make it necessary always to use both hands for lifting the cooker. A large cooker sometimes has a long side handle and a small ear-type one opposite to help in carrying the pan. Be sure that ear-type side handles are large enough so that you can hold them firmly with pot holders.

• Using a pressure cooker. The pressure cooker is not a utensil to be used casually. It is advisable not to leave it unattended. If the audible signal is quite clear, you can work in other parts of the room, but if you must leave the room for more than a few minutes, it is best to turn off the heat and resume cooking when you return—making the necessary time allowance.

Become familiar with the directions that were developed for your cooker and operate it accordingly. Care in use will pay off not only in safety but in good cooking results—a pressure cooker will overcook food in a hurry as well as cook it fast.

Take special care to keep the vent tube from clogging. To avoid any possibility of liquid food, such as soup, boiling up into the tube, some manufacturers tell you not to fill the cooker more than two-thirds full. When you cook bony meats or other bulky foods that extend into the upper part of the cooker, be sure that no piece could possibly touch the vent tube. To control frothing of such foods as split peas, cranberries, rhubarb, and applesauce, bring pressure up slowly. Some manufacturers definitely advise against cooking these foods in a pressure pan.

• Care of the pressure cooker. Cleanliness is the first rule in the care of a pressure cooker. At each washing look to see that the vent tube is clear—a pipe cleaner is a help in cleaning it. Covers with pressure gages should never be immersed in water, nor should the weights that are used to control pressure. It is usually best not to put any type of cover in the dishpan because bits of food or grease might find their way into the vent tube.

Wash the gasket well; the rubber or rubberlike compound may be injured if grease accumulates on it. Some gaskets are removable for thorough washing.

Avoid damage to the rims of cooker and lid. These are the sealing surfaces and a dent could cause a leak that would make it difficult or impossible to build up steam pressure.

Do not cover the cooker tightly when it is not in use. Leave the cover loose so that air can circulate. Have a special place for a detachable weight and always put it there—otherwise you may lose as much time hunting it as you save by using the pressure pan.

Pans for oven use

In general, pans for use in the oven do not get the regular hard wear that range-top pans do. Therefore they are often of lighter weight. However, the selection of baking pans is equally important because the quality of baked products is more influenced by pans than is that of foods cooked on top of the range.

Construction features

To bake foods well pans must be sturdy enough to stay flat on the bottom and not be easily bent out of shape. Construction, as well as weight and quality of material used, affects durability. A rolled-top edge gives a sheet metal pan strength and rigidity. A cooky or baking sheet that does not have a turned-up edge all around to give it added strength needs to be of heavier metal to keep it rigid.

When selecting an oven pan, be sure that it is designed for easy handling with pot holders. Rolled rims help prevent metal pans from slipping from the grasp. Oven dishes of glazed pottery or glass, which are both smooth and heavy, should have handles or protruding rims or ears by which they can be lifted securely.

Look for pans without hard-to-clean seams and crevices. The smoother the pan, the easier it is to remove food.

Points on sizes

Results in baking depend partly on the size of the pan in relation to the size of the recipe. A pan that is too deep will prevent food from browning well on top. One that is too shallow will let food run over in the oven. It may not be possible to have a pan of the ideal size for each recipe, but be sure to have sizes you need for the recipes you use most often.

Be sure, too, that the pans are a size to fit your oven. This is especially important for layer cake pans or piepans that are used two, three, or even four at a time. The pans should go into the oven without touching each other or the oven walls so that they will not interfere with circulation of heat. They may be placed diagonally on a shelf, and if two shelves are used, those on the lower shelf should be arranged in the opposite direction from those on the top shelf. Just be sure that no pan need be placed directly above or below another. A large pan should be enough smaller than the oven so that there is room for hot air to circulate around it on all sides.

Measurements of pans, as given in recipes, are for the top inside dimensions of the pans. Depth is the vertical depth—not the length of a sloping side.

Pan sizes given in this publication are among sizes that have recently been adopted as standard by the American Standards Association. Though other sizes may be available, recipes and packaged mixes will call more and more for pans of these sizes.

Cake pans

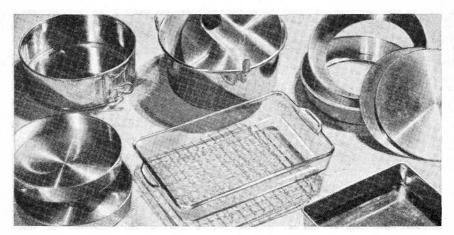
• Layer cake pans. Pans for layer cakes most often are round, 8 or 9 inches in diameter. Many new cake recipes call for 8-inch pans about 1½ inches deep or 9-inch pans 1½ inches deep.

Layer cake pans come with solid or loose bottoms. Some women find it easier to get cake out of the pans without breaking if the pans have loose bottoms, but very thin batters may leak from them, especially if the bottoms become slightly bent.

Since a lightly browned crust is usually preferred for layer cakes, pans of fairly bright aluminum or tinware are best.

• Square and oblong cake pans. Many cake recipes call for square or oblong pans a little deeper than layer cake pans. Baked in such pans, cakes are a little lower and crustier at the corners than in the center.

Square pans are most often either 8 inches on a side and 2 inches deep or 9 by 9 by 1¾ inches. An oblong pan 11 by 7 by 1½ inches is usable



Cake pans. Top row: Spring-form, tube pan, loose-bottom layer pans. Bottom row: Solid-bottom layer pans, oblong pan, rack, and square pan.

for the same purposes but just a little smaller than the 8-inch-square pan. There are larger oblong pans which are useful for extra-large cakes, especially those that are iced in the pan.

These pans are convenient for baking rolls, coffee cakes, biscuits, and corn bread as well as cakes. In the larger sizes they may be used for roasts also. The pans may be had in aluminum, tin, or glass.

- Loaf cake pans. For loaf cakes the same pan can be used as for bread. See page 26.
- Cooky sheet. Best for baking cookies is a pan without sides. The cooky sheet is described on page 27.
- Tube or angel cake pan. A tube pan is used most for angel, sponge, or chiffon cake. For these delicate cakes a pan of aluminum or tinware that gives a lightly browned crust is best.

The tube should be taller than the pan sides to keep the top of the cake from touching the table when it is inverted for cooling. See that the tube is wide enough to support the pan, or that there are legs on the pan for this purpose.

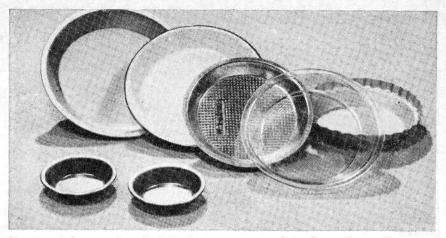
Bottoms of tube pans may be loose or solid.

A tube pan 9 inches in diameter and 3½ inches deep is the right size for an angel cake made with 1 cup of egg whites. For 1½ cups of egg whites you need a 10-inch pan 4 inches deep.

- Special cake pans. There are many different pans for baking special kinds of cakes—deep round pans with straight sides, in graduated sizes, for fruit or wedding cakes, single deep round pans for tortes, pans in a wide variety of fancy shapes for special-occasion cakes. These belong in a kitchen set only if you have enough use for them to warrant the investment, and a place to keep them so that they will not take up room needed for more important utensils.
- Cooling racks. A cooling rack is a useful item of cake-making equipment. A cake cools evenly on a rack and the crust doesn't sweat and peel off as it often does if the cake is cooled on a solid surface. A cake on a rack is easy to handle, too. Cake racks are inexpensive, and once they are in your kitchen you will use them for cooling all sorts of baked products and as stands to protect table tops from hot utensils.

Cooling racks have heavy wire frames shaped at the corners to provide supports that hold the rack a half inch or so above the table. The wires that form the rack may be crisscross or they all may run in one direction.

Racks are commonly almost square—from 9 to 11 inches across, a good size and shape for general use. Racks of the same size will nest for storage so that two take up little more space than one.



Piepans, left to right, of dull aluminum, enamel, embossed tin, glass, and aluminum. Pan at right has juice-catching rim. Patty pans are tin.

Piepans

To be good, a pie must have a well-baked bottom crust. This means that piepans should be of materials that absorb heat readily. Aluminum with a special dull finish is good, and so is glass. Tinware must become darkened before it will bake undercrusts well.

Size of piepans is designated by the inside top diameter, usually expressed in the nearest even inch measure. The common sizes are 8, 9, or 10 inches, though there are 7½- and 8½-inch pans. A few are larger and there are little ones 4 to 5 inches in diameter for individual pies or tarts. The usual depth for 8- to 10-inch pans is 1 to 1¼ inches, but extra-deep ones can be had.

Some piepans have juice-catching rims, designed to keep juices from boiling over into the oven.

Pans for breads

• Loaf pans. Loaf pans are needed for yeast breads and for quick breads, such as nut or orange bread. They are used also for pound and fruit cakes and for meat loaf and similar dishes. Some homemakers find that one loaf pan is enough, but anyone who bakes good-sized batches of bread will need several.

If you like bread brown and crusty, choose dull aluminum or glass pans. Bread baked in bright pans will be lighter in color on the bottom. If the loaf pan is to be used for cakes as well as bread you may prefer the bright pan.

Loaf pans come in a wide variety of dimensions. Good standard sizes are $8\frac{1}{2}$ by $4\frac{1}{2}$ by $2\frac{1}{2}$ inches; $9\frac{1}{2}$ by $5\frac{1}{4}$ by $2\frac{3}{4}$; and 10 by 5 by 3 inches.

• Cooky sheet. The pan called a cooky sheet is good also for baking rolls, biscuits, cream puffs—anything stiff enough not to require a pan with sides. Because the pan has no sides, hot air can circulate directly over the food to brown it evenly.

A cooky sheet always has at least one turned-up edge so that you can get hold of it easily, and at least one open side to permit you to slide the food off.

Aluminum is the material most commonly used for cooky sheets, though tin is also satisfactory.

When you buy a cooky sheet be sure it is enough smaller than your oven so that there will be at least an inch on every side of it for circulation of heat. Standard sizes are 14 by 10, 15½ by 12, and 17 by 14 inches.

• Muffin pans. Muffin pans, like cooky sheets, can serve several purposes. They are commonly used for cupcakes, rolls, and tart shells as well as for muffins.

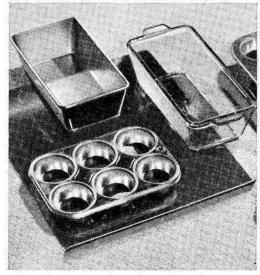
Size of muffin pans is designated in two ways—by the size of each cup and by the number of cups in each pan. Cups vary widely in dimensions. For general use a medium-sized cup is good—one about $2\frac{1}{2}$ inches in diameter by $1\frac{1}{4}$ inches in depth, or 3 inches wide and $1\frac{1}{2}$ inches deep.

You may find muffin pans with 6, 9, or 12 cups. Which to choose

depends upon the size of your family and their appetites. Two pans of 6 cups each cost a little more than one 12-cup pan, but they are more adaptable to different purposes and different occasions.

Aluminum and tinware, the materials most commonly used for muffin pans, are both good.

The fewer the creases in muffin pans the easier the pans will be to wash. Some are pressed from sheet aluminum and are entirely free from ridges or seams where cup and frame meet.



Pans for baking breads, muffins, biscuits.

Roasters

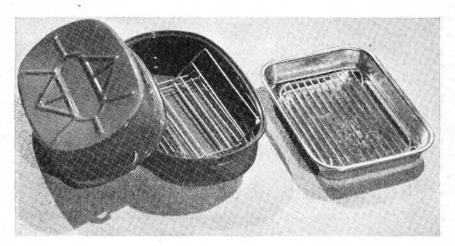
Correctly speaking, roasting is cooking in the oven in an uncovered pan, without water. It is recommended for tender meats and poultry. Adding water or covering the pan is much the same as pot roasting and is of advantage only with less tender meats. Before deciding to invest in a covered roaster, give the open-pan method a trial—unless your oven is one that you cannot control at a steady low temperature.

For open-pan roasting, any kind of pan large enough for the meat and deep enough to hold the drippings can be used. A pan about 14 by 10 by 2 inches is a good size for most roasts. It is useful too for such things as baked apples, an iced-in-the-pan cake to take to a pot-luck supper, or a large quantity of scalloped potatoes.

A trivet or rack that fits into the pan is needed to hold meat up out of the drippings and let hot air circulate around it. The rack may have handles to help in lifting the roast from the pan. A V-shaped rack is especially good for poultry.

In covered roasters you have a choice of enameledware, often the dark-colored kind, or aluminum. Size is usually designated by the weight of roast the pan will hold. A roaster just large enough for the usual roast won't accommodate the big, special-occasion turkey. On the other hand, a roaster big enough for any need will be cumbersome for ordinary use and will monopolize the oven so that very little else can be baked at the same time.

Be sure that a covered roaster has good handles.



Covered roaster, left, is shown with rack that adjusts to wide or narrow V-shape for supporting roast. Open roaster, right, has flat rack.

Casseroles, custard cups, pudding pans

• Casseroles. A casserole is a convenient utensil for baking many kinds of main dishes and desserts. To be most widely useful the dish should have a cover.

Since the casserole goes to the table, its appearance is especially important. Glass and pottery, which are attractive and hold heat well, are most used. Some pans of stainless steel and enameledware are designed for oven-to-table use. Both casserole and cover need handles that can be grasped firmly with pot holders.

Casseroles are made in a wide variety of sizes. The 2-quart size is a useful one for families of four to six.

- Custard cups. Designed primarily for baking custards, these cups serve many other purposes. They are useful as miniature mixing bowls, as refrigerator dishes, and as molds for desserts and salads. They may be used for baking pop-overs and for individual servings of scalloped dishes, though broader, flatter dishes or ramekins are easier to eat from. Custard cups are usually of glass or pottery; a few are of enameledware.
- Pudding pans. Pudding pans can be used for any of the purposes for which an uncovered casserole is used. They are useful too on top of the range since they are most often of enameledware, or sometimes of aluminum or stainless steel, and are handy for washing and preparing fruits and vegetables.

Pudding pans come in sizes from 6 to 12 inches in diameter, from 1 to 6 quarts in capacity. A 9-inch size is good for general use.



Covered casseroles, open pudding pans, and individual custard cups are used frequently for the baking of main dishes and desserts.



A set of kitchen utensils

The following lists—including food preparation and dishwashing equipment as well as pots and pans—may help the homemaker who is equipping a kitchen, adding new utensils, or making replacements. The lists were developed from the experience of homemakers as shown by a recent survey. Utensils used at least once a week in at least half the homes are starred (*). These make up a minimum set. A recommended set includes the other pieces, which were used by at least a quarter of the women. If you have still others that you use often, they belong in your set.

The pictures on these two pages include all utensils listed. The pieces were chosen to show variety in materials and designs. You may prefer other materials or designs for your utensils.



Pans for range-top and oven use

- *1 coffee maker, size and type to suit family
- *1 double boiler
- *1 fry pan, 10- to 12-inch diameter
- *1 fry pan, 8-inch diameter
- 1 griddle
- *1 kettle with lid, 8 quart
- *1 saucepan, 1 quart
- 1 saucepan, 3-cup to 3-quart capacity as needed
- *1 saucepan, 3 quart
- *1 saucepan or saucepot, 4 quart
- 1 teakettle
- *1 teapot
- 1 baking pan, about 10 by 14 inches

- 1 bread pan
- *2 cake pans, layer, 8 or 9 inch
- 1 cake pan, square, 8 or 9 inch
- *1 casserole with lid
- *1 cooky sheet
- 1 cooky sheet (additional)
- *1 cooling rack
- 1 cooling rack (additional)
- *6 custard cups
- 1 muffin pan, 8 to 12 cup
- *2 piepans
- *1 pudding pan, 9 inch
- 1 roaster

Tools for food preparation and dishwashing

*1 beater, rotary	*1 mixing bowl, 1 quart
*1 bottle and jar opener	*1 mixing bowl, 2 quart
*1 can opener (for tin cans)	*1 mixing bowl, 4 quart
*1 colander	*1 orange or fruit juicer or reamer
*1 cutting board	*1 pan, round, 12 inch
1 flour sifter	*1 potato or food masher
1 food chopper (crank type)	*1 rolling pin
1 food mincer (blade type)	*1 spatula, 7-inch blade
1 food press	*1 spoon, basting, long handle
*1 fork, 2 tines, long handle	*1 spoon, perforated mixing, long handle
1 grater and shredder set	*1 spoon, wooden, 11 inch
*1 knife, bread or slicing, 8-inch blade	1 spoon, wooden, 15 inch
*1 knife, butcher, 7- or 8-inch blade	*1 set spoons, measuring
*1 knife, case	*1 strainer to fit top of cup
*1 knife, paring	*1 strainer, medium size, medium mesh
*1 knife sharpener	*1 turner, pancake, long handle
*1 ladle	*1 dish drainer
*1 measure, 1 cup	*1 dishpan
*1 measure, 1 pint	*1 pan to fit under dish drainer or second
*1 measure, 1 quart	dishpan
*1 set measures, $\frac{1}{4}$, $\frac{1}{3}$, $\frac{1}{2}$, and 1 cup	*1 sink strainer
*1 mixing bowl, 1 pint	*1 vegetable brush

Index to pots and pans

Materials for cooking utensils— alumiuum. copper. enameledware.	Pans for oven use—Continued piepans. pudding pans. roasters.	26 29 28
glass iron 3, pottery sheet metal, dark steel, stainless tinware	5 double boilers. 4 Dutch ovens fry pans griddles.	6 16 11 10 11
cake pans	kettles. pressure cookers. saucepans, saucepots. teakettles. system of the saucepots of the saucepots. waterless cookers.	12 18 12 17 9 15

Prepared by: Elizabeth Beveridge

Lay out and art work: Katharine J. Burdette

Photography: Albert Candida

BUREAU OF HUMAN NUTRITION AND HOME ECONOMICS

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