Silver will have water spots when air dried. It can be shiny, dull, or brushed. It is a metal that improves with age. The buildup of small scratches from daily use gives silver a variety of shapes and sizes. Unless it is correctly seasoned, ironware may give food a sick gray color or a metallic taste. Also, it will likely rust.

For general care, wash with a mild detergent and water. To brighten darkened aluminum, try one of these methods:

• Cook an acid food such as tomatoes and tart apples in darkened cookware. The food will be safe to eat.
• Boil a mixture of 2 tablespoons of cream of tartar in 1 quart of water in darkened cookware.
• Use fine steel wool (Grade 00 or 000) and soap on the stained surface.
• Use a paste cleaner made from:
  3 tablespoons mild soap flakes
  6 tablespoons hot water
  3½ tablespoons whiting
  3 tablespoons vinegar

Make a paste of the soap flakes and hot water. Combine with the other ingredients. Store in a tightly covered container. Use the paste cleaner with fine steel wool (Grade 000 or 0000). For materials that have hardened on aluminum, rub with a damp cloth dipped in whiting.

When food is burned on a pan, boil water in it. Remove the softened food with a wooden or plastic scraper. If some food remains, try one of the above methods. Rinse and dry aluminum surfaces after using any cleaner.

Stainless Steel

Stainless steel is an iron alloy that contains chromium as well as carbon. It is strong and highly resistant to corrosion and oxidation. It is used in furniture, cookware, tableware, and sinks. It can be shiny, dull, or brushed.

For general care, wash with a mild detergent and water or a solution of ammonia and water. Rinse and polish dry with a soft cloth. Stainless steel will have water spots when air dried. To remove food burned on a stainless steel pan, add 2 tablespoons of baking soda to a quart of water in the pan. Bring it to a boil. Then, remove it from the heat and let the pan soak.

Stainless steel may develop a blue-gray or brownish color if overheated. Minor darkening can be removed with a stainless steel cleaner. If excessive, however, the darkening cannot be removed.

Cast Iron

Cookware of the past was often made of cast iron. And today, new cast iron cookware comes in a variety of shapes and sizes. Even though it is not as durable as other kinds of cookware, it is popular for its rustic appearance and cost. It is safe to eat.

New cookware often has a gummed label attached. It is easy to peel off. To season ironware, wash it inside and out with a mild liquid dishwashing detergent. Dry it thoroughly. Then, grease it inside and out with salad oil or unsalted fat. Grease the lid, too. Place the utensil on the range and heat it slightly. Then, peel off the label.

To season ironware, wash it inside and out with a mild liquid dishwashing detergent. Dry it thoroughly. Then, grease it inside and out with salad oil or unsalted fat. Grease the lid, too. Place in a moderate oven (300°F.) for 2 hours. Remove the utensil and allow it to cool. Then, wash it in mild soap; rinse and dry. Repeat this process once or twice until the pores are sealed. If it fails when used, repeat the seasoning process.

For general care, don't use high cooking temperatures. Also, water-basedcooking, like stewing and steaming, may remove the seasoning. Uncover hot foods when you remove them from the heat so steam can't collect and remove the seasoning.

After heavy cleaning, you may need to restore the top seasoning. To do this, apply a thin coat of unsalted oil or fat with a paper towel. Store ironware in a dry place. Don't cover it in storage because it may sweat and rust. Place a paper towel inside to absorb moisture.

Once it's correctly seasoned, cast iron cookware gets better with use and can last a lifetime.

Many people toss out things, thinking they're beyond repair when really they can be changed into attractive accessories. Often, these items are treasures hidden under grease, tarnish, and stain. It doesn't take magic. It takes knowing how to clean and care for the materials used in the past and today.

Most metals used in the home are easy to care for. You need to know the kind of metal you have. Cleaning methods are based on the characteristics of the metal.

Cleaning Supplies

Emery cloth—A very fine sandpaper. You can buy it at hardware, building supply, or paint stores.

Denatured alcohol—A liquid often used in furniture refinishing. Buy it at paint, hardware, building supply, or department (paint section) stores.

Linseed oil—A liquid often used in furniture refinishing. Buy it at paint, hardware, building supply, or department (paint section) stores.

Rottenstone—A fine abrasive powder. Buy it at hardware or building supply stores.

Whiting—A very fine powder made from chalk. It comes in pound packages at hardware and paint stores.

Silver is a metal that improves with age. The buildup of small scratches from daily use gives silver flatware the deep mellow tone of fine antiques.

Silver tarnishes when exposed to the sulphur in the atmosphere and in rubber. Don't store silver in cabinets with rubber seals. Don't use rubber bands around silver because it can become deeply etched. Don't use rubber-backed place mats with silver.

Silver can also be harmed by paint on walls. Casein, which is in most water-based paints, gives off sulphur compounds. Foods, such as eggs, mayonnaise, and mustard, will tarnish silver. Acid foods, such as vinegar, lemon, pickles, fruit juice and table salt, can spot and corrode silver.

Flowers and fruit are lovely in silver containers, but the acid formed as they decay can etch the container and cause serious damage. If silver bowls are to be used for this, use a glass liner.

If silver pieces are used in a room, they should not be covered with plastic. Plastic detracts from the lustre of the silver and may discolor it. When washing silver, use hot, soapy water. Rinse and dry it soon with a soft cloth. Air-drying causes water spots. If water spots form, remove them with a silver polish.

Some of the newer silver flatware can be washed in a dishwasher. Check with the manufacturer first for specific instructions. If you use a dishwasher, remove your flatware as soon as it is rinsed. Dry it with a soft towel to prevent water spots. If you have hard water, don't wash silver in the dishwasher. The chemicals in the hard water combined with dishwasher detergent may damage silver.

Silver doesn't have to be polished each time it is used. However, tarnished silver is easy to clean. Apply polish in long, even strokes, not

CIRCULAR HE-539
across or in a circle. There are several fine commercial silver polishes. Follow the directions on the label.

You can make your own silver polish:

- Make a paste of 1 part clear household ammonia or denatured alcohol and 3 parts whiting. Dampen a soft cloth with water and dip it into the paste. Apply the paste and rub until the tarnish is removed. Wash the silver in hot, soapy water. Rinse, dry, and polish with a soft cloth.

- For a bright finish, make a paste of whiting and denatured alcohol. Dip a soft cloth into the paste and rub the pewter in one direction. When clean, wash in hot, soapy water. Rinse, dry, and polish with a soft cloth.

- Never use steel wool (not even the finest grade) or powdered cleaners on pewter.

For a dull finish, make a paste of rottenstone and olive oil or boiled linseed oil. Dip a cloth in the paste and rub the piece in one direction. When clean, wash in hot, soapy water. Rinse, dry, and polish with a soft cloth.

- For a bright finish, make a paste of whiting and denatured alcohol. Dip a soft cloth into the paste and rub the pewter in one direction. When clean, wash in hot, soapy water. Rinse, dry, and polish with a soft cloth.

Never use steel wool (not even the finest grade) or powdered cleaners on pewter.

Brass

- Brass is made of copper and zinc. It looks best if it is kept shining. You can retard tarnishing by coating brass pieces with lacquer, a synthetic finish, tung oil, lemon oil, or products sold for this purpose.

- Lacquered brass should be dusted regularly and occasionally washed in warm water. Rinse with warm water and dry thoroughly. Use a hairdryer to dry hard-to-reach areas. Lacquered brass should never be polished, soaked in water, or washed in hot water. These can crack the lacquer coating.

- If the lacquer is damaged, you may want to remove it all. Soak the piece in hot, soapy water for about 15 minutes. Rinse with hot water and rub with a soft cloth until the lacquer peels off. Another method is to rub the piece with a soft cloth dampened with lacquer thinner, acetone, or banana oil.

- Brass without a coating will tarnish and must be polished. There are several ways to clean and polish brass. Some are listed below. Test any cleaner to be sure you get the effect you want. Some cleaning methods remove the mellowness of antique brass.
  - Wash the piece in hot, soapy water. Rinse and dry it to remove surface grime. Wax, if desired, with a furniture wax.
  - Dampen a soft cloth with boiled linseed oil and rub the piece in hot, soapy water. Rinse in hot water. Dry by rubbing in one direction.

- You can make your own polishing powder with one of the following:

  - **For a general cleaner**, make a paste of whiting and boiled linseed oil. Dip a soft cloth into the paste and rub the pewter in one direction. Remove as much tarnish as you want and then rub with a soft cloth to polish it.

  - **For a dull finish**, make a paste of rottenstone and olive oil or boiled linseed oil. Dip a cloth in the paste and rub the piece in one direction. When clean, wash in hot, soapy water. Rinse, dry, and polish with a soft cloth.

  - **For a bright finish**, make a paste of whiting and denatured alcohol. Dip a soft cloth into the paste and rub the pewter in one direction. When clean, wash in hot, soapy water. Rinse, dry, and polish with a soft cloth.

- Rub the piece with table salt moistened with hot vinegar or lemon juice. Wash it in hot, soapy water. Rinse it in hot water and dry.

- Rub a slice of lemon into table salt. Rub it on the surface. Wash the piece in hot, soapy water. Rinse in hot water and dry.

- Pour ammonia in a glass bowl. Soak the brass piece for a few minutes. For large objects, rub them with a cloth dampened with ammonia. Turn the cloth as it becomes soiled. Wash the piece in hot, soapy water. Rinse and dry. Polish it using a paste of whiting and linseed oil.

Brass anodizing and fire sets that have been neglected require special treatment. Fine steel wool can be used but requires much time and work. Very fine emery cloth gives quicker results. However, you must rub the metal in only one direction—not round and round. When the tools are clean, polish them with a commercial polish or one of the above methods.

- Brass, bronze, copper, and pewter can be damaged by verdigris. This is a corrosion that shows up as small, rough, light-green spots. It can usually be removed with a paste of rottenstone and oil. Warm buttermilk or vinegar (acid) and salt can also be used. Immediately wash and rinse the piece to stop the action of the acid. Rub with dry rottenstone or whiting to absorb any remaining acid.

- The piece can also be washed in repeated changes of boiling distilled water. It may be necessary to soak it for a week or more in distilled water.

Bronce

- Bronze is a molten alloy of tin, copper, zinc, and aluminum or phosphorus. The surface is colored by the person making the piece after it has been cast. The color comes from applying chemicals and ranges from black, brown, or various shades of green to a light gold. You must be careful not to use anything on the piece that will affect the color.

- Keep bronze as clean as possible. A buildup of dust and dirt can eat into the surface. Dust it regularly with soap and soft cloth. Don’t rub too hard, especially on parts that stick out. Use a small brush to remove dust from any crevices. Then lightly rub the entire surface with a soft flannel cloth.

- If there is a heavy crust of grime, have a professional restore the surface.

- For a thorough cleaning, wash bronze in a mixture of 3 tablespoons of salt in 10 quarts of water. Rinse it and polish. The methods for polishing brass can also be used on bronze.

Chrome

If your bronze develops verdigris, a light-green corrosion, follow the directions under brass for removing it.

Copper

Many copper pieces are lacquered to prevent corrosion and tarnish. Don’t polish, clean in water, or wash lacquered pieces in hot water. The lacquer may crack. To care for lacquered copper, wash the piece in warm, soapy water. Rinse it in warm water and dry thoroughly.

Damaged lacquer can be removed by either of these methods:

- Soak the piece in hot, soapy water for about 15 minutes. Rinse with hot water and rub with a soft cloth until the lacquer peels off.

- Rub the piece with a cloth dampened with lacquer thinner.

Copper that is not lacquered will tarnish and must be polished. To keep it looking new, use a commercial cleaner or homemade polish. First, wash the item in hot soapy water to remove dirt and wax. Then, decide whether you want a soft or bright finish.

For a soft finish, use either of these methods:

- Make a paste of whiting or rottenstone and boiled linseed oil. Using a soft cloth, rub on the paste to remove tarnish. Then, polish with a soft, dry cloth. This is best for lightly tarnished pieces.

- Make a paste of whiting and denatured alcohol. Rinse the paste on the surface and let it dry. Polish off the white film. Wash the piece in hot, soapy water. Rinse it and dry.

For a bright finish, use one of these methods:

- Rub with table salt mixed with vinegar or lemon juice. Then wash, rinse, and dry. Copper can also be used on copper. If verdigris, a light-green corrosion, forms on copper, use the directions for cleaning brass.

Chrome

Chrome is known for its hardness and brittleness. It can be polished to a very high luster. Plumbing fixtures and small appliances are often coated with chrome plating. Chrome is very resistant to staining and tarnishing. However, abrasive household cleaners and steel wool can easily scratch it.