

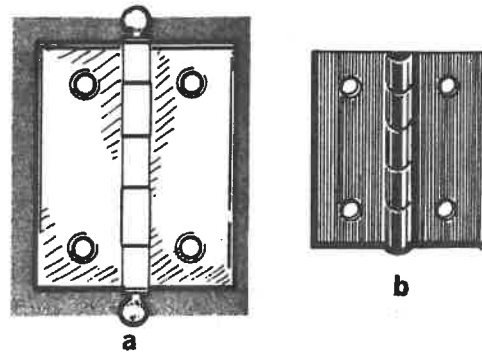
Installing Hardware

Two kinds of hardware are used in constructing certain projects. *Cabinet* hardware (such as hinges, handles, and catches) is needed to complete a project that has doors and drawers. Fig. 35-1. *Structural* hardware (such as repair plates) is used to strengthen wood joints and hold unseen parts of a project together.

Hardware that is part of the final trim should be the proper style. For example, don't put an Early American drawer pull on a modern chest. Hard-



35-1. This small dry sink has surface hinges on the doors and metal knobs for handles. Note the wood plugs. They cover screws used to fasten the parts together.

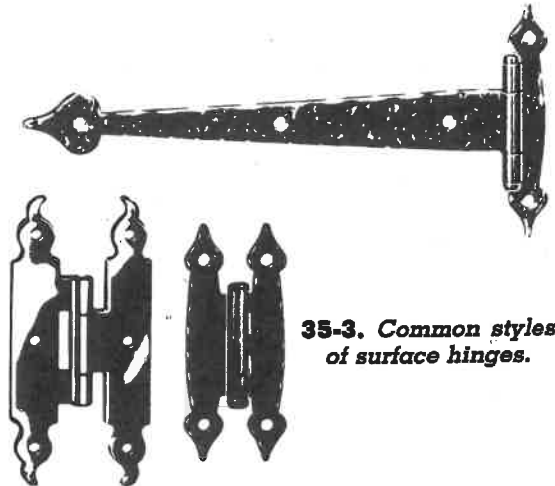


35-2. Common butt hinges: (a) Loose pin hinge. (b) Solid pin hinge.

ware stores carry a wide variety of these items. You should choose hardware carefully; know what kind you want before you go to the store. Large catalogs are available that show every different type of hardware item. Some of the more common ones are discussed here.

HINGES

The *butt hinge* is the most common. Fig. 35-2. It is used for hanging most kinds of doors. You can buy this hinge with either a loose or a solid pin. If a loose pin is used, be sure that the hinge is mounted so that the pin won't fall out. One leaf of the butt hinge is fastened to the edge of the door and the other to the edge of the frame. A *gain* (a large groove) must be chiseled out in both the door edge and the edge of the frame. The number of hinges and their size depend on the size of the door. A small door of about 18 inches, for example, would probably require only two hinges about 1½ to 2 inches long.



35-3. Common styles of surface hinges.

The *surface hinge* is the easiest to use. Fig. 35-3. It can be bought in many different styles, such as Early American, Modern, and Traditional. The surface hinge is fastened directly to the front of both door and frame.

Other *cabinet hinges* are used for installing flush or overlay doors or for a door with a lip. Fig. 35-4. A semi-concealed (partly hidden) cabinet hinge is the most common. To install this, first mark the location for the hinge on the inside of the door and fasten the hinge to the door itself. Then hold the door with the hinge against the frame. Mark the location of the screws, do the drilling, and install the hinge.

DRAWER PULLS AND HANDLES

Drawer pulls and handles are made in a wide variety of designs. Fig. 35-5. You can find a good-looking handle to meet every need, such as a hammered black handle for Early American, a stamped shield and medallion for a Traditional design, or a polished brass handle for a Modern project. Drawer handles and pulls are sold with screws for installing them, and they come with instructions.

CATCHES

The most common catches are the *friction catch* for simple kitchen cabinets and the *mag-*

netic catch often found on fine furniture. Fig. 35-6. There is also a *roller catch*. Fig. 35-7.

OTHER HARDWARE

Some other common items of hardware are cabinet and chest locks and special types of hooks and braces.

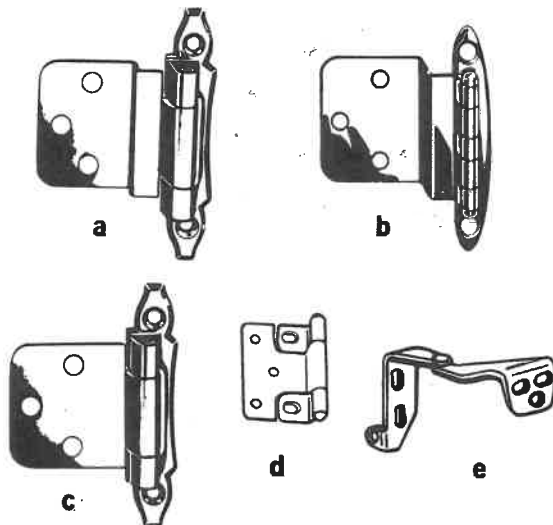
INSTALLING A BUTT HINGE

1. A door is hung with two or three hinges. Select the size and number of hinges according to the size of the door.

2. Fit the door in the opening. If the hinges will be on the left side, insert small wedges at the bottom and to the right of the door itself. If the hinges will be on the right, put the wedges at the bottom and the left.

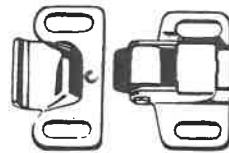
3. Measure up from the bottom and down from the top, and mark a line showing the location of the hinges.

4. Draw a line across the edges of both door and frame to show the location of the hinges.

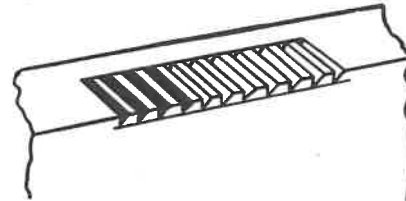


35-4. Some common kinds of cabinet hinges: (a) Semi-concealed with inset for a lip door. (b) Semi-concealed with offset for an overlay door. (c) Semi-concealed with straight hinge for an overlay door. (d) Another type of semi-concealed hinge for overlay doors. (e) Pivot hinge for doors.

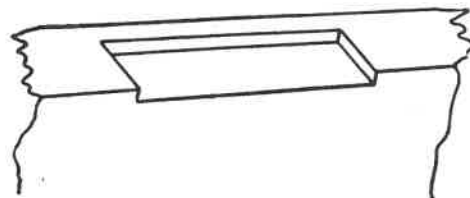
5. Place one hinge over the edge of the door and mark how far it extends into the door.
6. Measure the thickness of one leaf of the hinge and set a marking gauge to this amount.
7. Draw lines on the door and the frame to show this thickness.
8. Cut the gains for both hinges by hand with a chisel. Figs. 35-8 and 35-9.
9. Place the hinges in the gains of the door and drill the pilot holes for the screws. Fasten the hinges in place.
10. Hold the door against the frame and mark the position of one hole in each hinge. Drill the pilot hole and insert one screw in each hinge.
11. Check to see if the door operates correctly. If it does, install the other screws.



35-7. A roller catch.



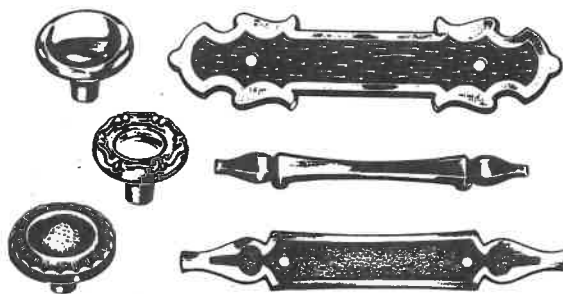
35-8. Gain notches cut with a chisel.



35-9. The gain cut and ready for the hinge.

INSTALLING A SURFACE HINGE

1. Place the door in the opening.
2. Put wedges at the bottom and at the right (or left) of the door.
3. Mark the location of the hinges.
4. Place the door on the bench top. Fasten the hinges to the door itself.

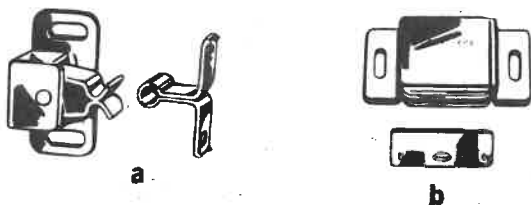


35-5. Drawer pulls and handles.

5. Place the door in the opening again with the wedge in its place and install one screw in each hinge.
6. Try the door to see if it works correctly. If it doesn't work right, remove one of the screws and adjust the door until it does.

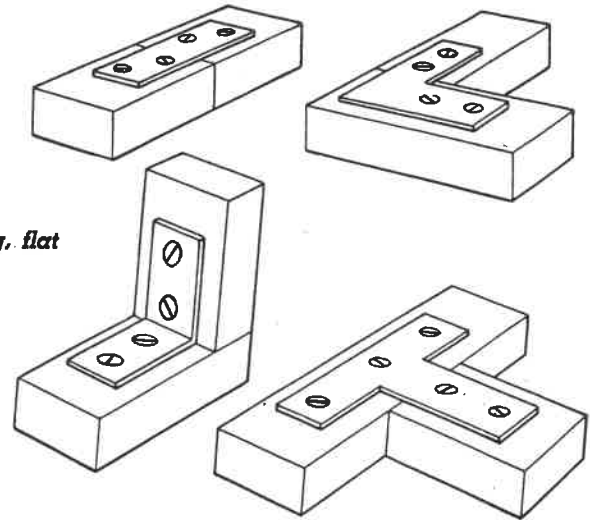
STRUCTURAL HARDWARE

Repair and mending plates come in many sizes and shapes. Fig. 35-10. *Mending* plates are used to strengthen a butt or lap joint. The *flat corner* iron is used to strengthen corners of frames such as a screen door or window frames. The *bent corner* iron can be applied to shelves and the inside corners of tables, chairs, and cabinets. It can also be used to hang cabinets and shelves. *T plates* are used to strengthen the center rail of a frame. Many other metal devices, such as tabletop fasteners, chair braces, and similar hardware, are also available.



35-6. Catches: (a) Friction. (b) Magnetic.

BEGINNING WOODWORK



35-10. *Four types of repair plates: mending, flat corner, bent corner, and T plate.*

QUESTIONS

1. What are the two kinds of hardware used in constructing projects?
2. Where can you get the cabinet hardware for your project?
3. Name two kinds of butt hinges.
4. Describe a gain.
- ~~5. Tell how to install a butt hinge.~~
- ~~6. Describe the way to put on a surface hinge.~~