Table Saw Cabinet

This cabinet is just what I've always wanted for my table saw. It adds weight and stability, it rolls away for storage, it has a sawdust collection system in the cabinet, and it turns all the wasted space under the saw into much-needed storage.

But before getting into the construction of the cabinet, something should be said about its size. This cabinet will comfortably support a Sears 10" table saw or a Delta (Rockwell) 10" Contractor's Saw. (The overall width of the cabinet is sized to fit under the saw with extension wings.)

The height of the cabinet shown here is $23^1/2$" (with casters). This puts the working height of both the Sears and Delta saws at $36^1/4$" (which is the same as the Sears saw on a Sears stand, but 2" higher than the normal Delta setup.)

CUT PIECES TO SIZE

I started work on the cabinet by cutting the six main pieces (the top/bottom, ends, and dividers) to final size from a 4'x8' sheet of $3/4$" birch plywood. (Birch is a little more expensive than CDX fir plywood, but the final appearance is worth it.)

TOP/BOTTOM. First, cut the top/bottom pieces (A) to a length of 39" and to a width of $23^3/4$", see Fig. 1.

ENDS. Next cut two end pieces (B and C) to a length of 20" and to the same width as the top/bottom pieces ($23^3/4$"), see Fig. 2. (Note: These pieces are wider than they are long, see grain direction in Fig. 5.)

DIVIDERS. Finally, cut the two dividers (D and E) to a length of $17^{13}/16$" and to a width of $23^1/2$", see Fig. 3. (Note: These dividers are $1/4$" narrower than the other pieces to allow for a $1/4$" back.)

RABBETS AND DADOES

Once the six major pieces were cut to size, I laid out the positions of the rabbets and dadoes used to join them together.

It's important to lay out these cuts so there will be mirrored sets. To keep things straight, I marked the front and back edges of each piece, and also the face that will have all the cuts, see Fig. 5.

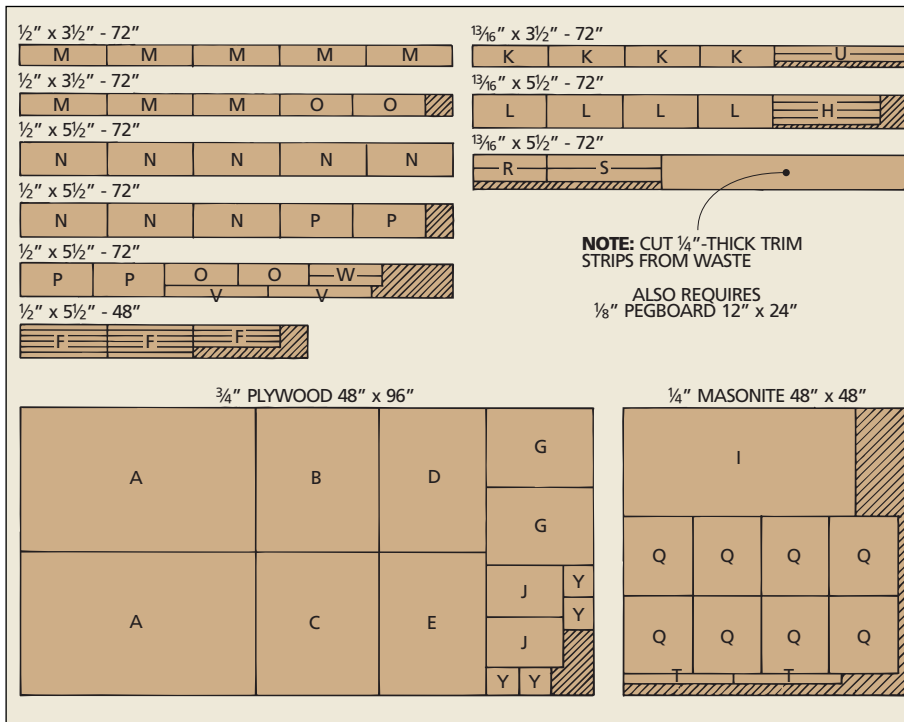**BACK RABBETS**. Start by laying out and cutting rabbets for the $1/4$" Masonite back. These rabbets are on the inside back edge of the top/bottom pieces (A) and the inside back edge of both ends (B and C), see Back Rabbet Detail in Fig. 4.

Note: To keep things simple, all of the rabbets, dadoes, and grooves for the basic cabinet are cut to a common depth of $1/4$", only the width varies.

MATERIALS LIST

Overall Dimensions: $23^1/2$"h x 40"w x $24^1/4$"d

A	Top/Bottom (2)	$3/4$" ply. x $23^3/4$ - 39
B	Left End (1)	$3/4$" ply. x $23^3/4$ - 20
C	Right End (1)	$3/4$" ply. x $23^3/4$ - 20
D	Left Divider (1)	$3/4$" ply. x $23^1/2$ - $17^{13}/16$
E	Right Divider (1)	$3/4$" ply. x $23^1/2$ - $17^{13}/16$
F	Drawer Runners (16)	$1/2$ x $3/4$ - 13
G	Separators (2)	$3/4$" ply. x $12^1/2$ - $17^5/16$
H	Shelf Cleats (4)	$13/16$ x 1 - $17^5/16$
I	Back Panel (1)	$1/4$" Mas. x $17^{13}/16$ - 39
J	Shelves (2)	$3/4$" ply. x $7^3/4$ - $12^1/2$
K	Sm. Drwr. Fronts (4)	$13/16$ x $3^1/4$ - $11^7/8$
L	Lrg. Drwr. Fronts (4)	$13/16$ x $5^1/4$ - $11^7/8$
M	Sm. Drwr. Sides (8)	$1/2$ x $3^1/4$ - $13^3/4$
N	Lrg. Drwr. Sides (8)	$1/2$ x $5^1/4$ - $13^3/4$
O	Sm. Drwr. Backs (4)	$1/2$ x $2^3/4$ - $11^1/4$
P	Lrg. Drwr. Backs (4)	$1/2$ x $4^3/4$ - $11^1/4$
Q	Drawer Bottoms (8)	$1/4$" Mas. x $11^1/4$ - 13
R	Catcher Fr/Back (2)	$13/16$ x 2 - $10^3/8$
S	Catcher Sides (2)	$13/16$ x 2 - $18^1/8$
T	Catcher Runners (2)	$1/4$" Mas. x $1^1/4$ - $18^5/8$
U	Catcher Cleats (2)	$13/16$ x $1^1/4$ - 21
V	Door Stiles (2)	$1/2$ x $1^1/4$ - $17^3/16$
W	Door Rails (2)	$1/2$ x $1^1/4$ - $10^7/8$
X	Door Panel (1)	$1/8$" peg. x $10^7/8$ - $15^3/16$
Y	Caster Pads (4)	$3/4$" ply. x 4 - 5

CUTTING DIAGRAM

$1/2$" x $3^1/2$" - 72"
M M M M M

$1/2$" x $3^1/2$" - 72"
M M M O O

$1/2$" x $5^1/2$" - 72"
N N N N N

$1/2$" x $5^1/2$" - 72"
N N N P P

$1/2$" x $5^1/2$" - 72"
P P O O W
V V

$1/2$" x $5^1/2$" - 48"
F F F

$13/16$" x $3^1/2$" - 72"
K K K K U

$13/16$" x $5^1/2$" - 72"
L L L L H

$13/16$" x $5^1/2$" - 72"
R S

NOTE: CUT $1/4$"-THICK TRIM STRIPS FROM WASTE

ALSO REQUIRES
$1/8$" PEGBOARD 12" x 24"

$3/4$" PLYWOOD 48" x 96"
A B D G
G
J Y
Y
A C E J
Y Y

$1/4$" MASONITE 48" x 48"
I
Q Q Q Q
Q Q Q Q
T T

BOTTOM RABBETS. Next, lay out and cut the rabbets to join the bottom to the ends. These rabbets are on the bottom edge of both end pieces (B and C), see Bottom Rabbet Detail in Fig. 4.

Note: The width of these rabbets should equal the actual thickness of the plywood which is usually a little shy of $3/4$" for hardwood plywood. But to keep things simple, all measurements are shown as $3/4$".

TOP DADO. Now lay out the position of the dadoes that are used to join the top (A) to the ends (B and C). To determine the location of these dadoes I wanted to plan ahead to allow enough space for the drawers below it. This requires an overall opening of $17^5/16$" for two $3^1/4$"-high drawers and two $5^1/4$"-high drawers with a $1/16$" gap between each drawer and the cabinet.

When I had this measurement I worked from the bottom edge up - allowing $3/4$" for the bottom rabbet (refer to Fig. 2), plus $17^5/16$" for the drawers, plus $3/4$" for the thickness of the top (A). This left $1^3/16$" as the measurement from the top edge to the top of the dado, see Fig. 2. (This position creates a raised edge to keep things from sliding off the cabinet, refer to photo.)

DRAWER RUNNER DADOES. After the top dadoes are cut, there are four more dadoes for the drawer runners in the end pieces (B and C) and dividers (D and E), see Figs. 2 and 3. However, the problem with laying out these cuts is that you're not working with the same measurements on the ends as on the dividers. The ends have to accommodate the top and raised edge that extends above the top.
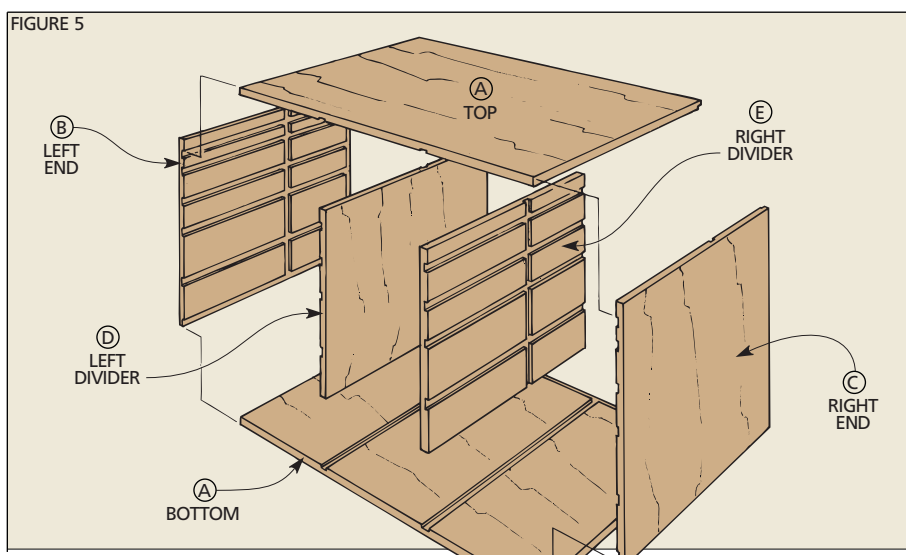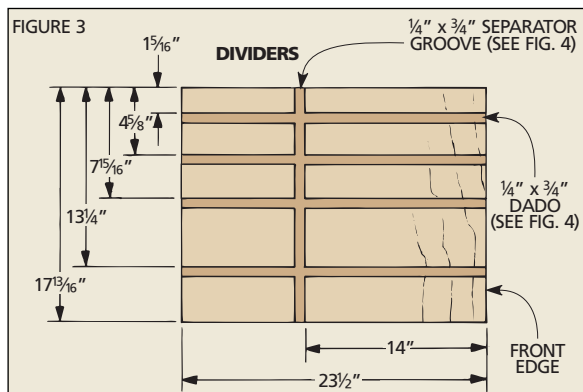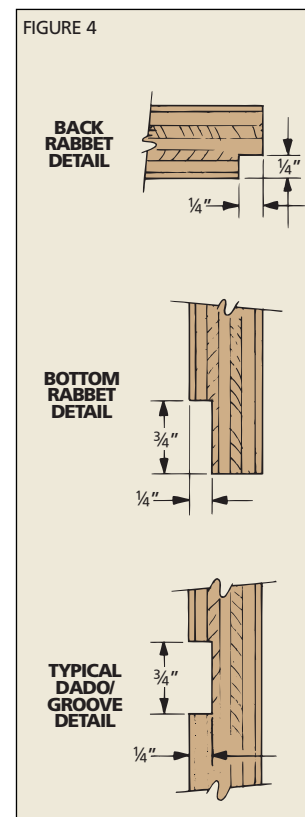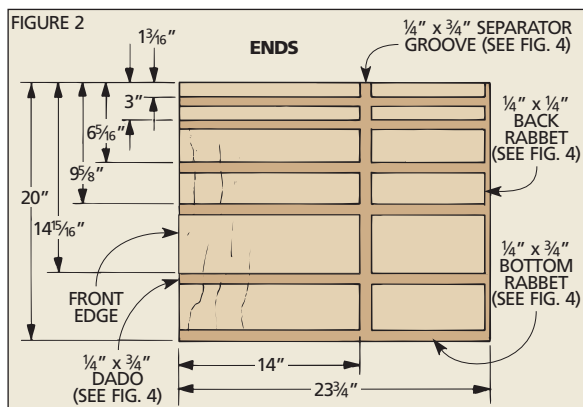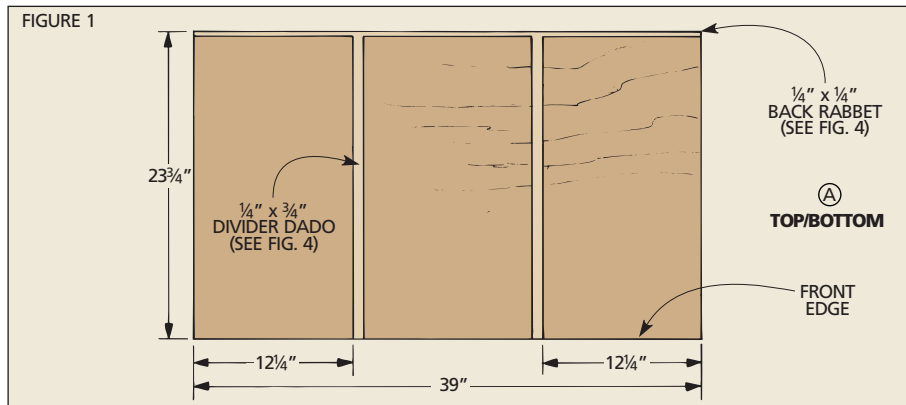
To lay out the first (top) runner dado on the ends (B and C), measure down 3" from the top edge. Then continue to work your way down laying out the remaining dadoes as shown in Fig. 2.

Note: All of the measurements for the positions of the dadoes (shown in Figs. 2 and 3) are taken from the top edge of the workpiece to the top edge of the dado. This is the same measurement needed when setting up the saw - it's the measurement from the fence to the dado blade.

RUNNER DADOES ON DIVIDERS. The top runner dado on the dividers (D and E) is only $1^5/16$" from the top edge, see Fig. 3.

Note: For ease of construction on a table saw, we've shown all of the runner dadoes going all the way to the back of the cabinet. But the drawers only run part of the way back. To get a slightly neater appearance, you could use a router and stop the dadoes 14" from the front edge.

SEPARATOR GROOVES. After the runner dadoes are cut, lay out and cut the vertical grooves for the separators (G) that divide the drawer compartments from the shelf compartments, refer to Figs. 7 and 8 on page 3. Locate these grooves 14" from the *front* edge of the ends and dividers, see Figs. 2 and 3.

FIGURE 1

$23^3/4$"

$1/4$" x $3/4$" DIVIDER DADO (SEE FIG. 4)

$1/4$" x $1/4$" BACK RABBET (SEE FIG. 4)

Ⓐ TOP/BOTTOM

FRONT EDGE

$12^1/4$" 39" $12^1/4$"

FIGURE 2

$1^3/16$"

ENDS

$1/4$" x $3/4$" SEPARATOR GROOVE (SEE FIG. 4)

3"

$6^5/16$"

$9^5/8$"

20"

$14^{15}/16$"

$1/4$" x $1/4$" BACK RABBET (SEE FIG. 4)

$1/4$" x $3/4$" BOTTOM RABBET (SEE FIG. 4)

FRONT EDGE

$1/4$" x $3/4$" DADO (SEE FIG. 4)

14"

$23^3/4$"

FIGURE 3

$1^5/16$"

DIVIDERS

$1/4$" x $3/4$" SEPARATOR GROOVE (SEE FIG. 4)

$4^5/8$"

$7^{15}/16$"

$13^1/4$"

$17^{13}/16$"

$1/4$" x $3/4$" DADO (SEE FIG. 4)

14"

$23^1/2$"

FRONT EDGE

FIGURE 4

BACK RABBET DETAIL

$1/4$"

$1/4$"

BOTTOM RABBET DETAIL

$3/4$"

$1/4$"

TYPICAL DADO/GROOVE DETAIL

$3/4$"

$1/4$"

FIGURE 5

Ⓑ LEFT END

Ⓐ TOP

Ⓔ RIGHT DIVIDER

Ⓓ LEFT DIVIDER

Ⓒ RIGHT END

Ⓐ BOTTOM

FIGURE 6

F
DRAWER RUNNER

13"

DETAIL

½"

¹/₁₆" CHAMFER

¾"

14"

NOTE:
NO RUNNER
IN TOP DADO

FRONT EDGE

BOTTOM RABBET

NOTE:
ALIGN DRAWER RUNNER
FLUSH WITH FRONT EDGE

FIGURE 7

¾" PLYWOOD

CUT FROM 4/4 STOCK

TOP VIEW

¼" DIA. THROUGH HOLES FOR SHELF SUPPORTS

2"

H
SHELF SUPPORT CLEATS (FOUR NEEDED)

3½"

3½"

17⁵/₁₆"

G
SEPARATORS (TWO NEEDED)

¾₁₆" DIA. COUNTERSUNK SHANK HOLES FOR MOUNTING CLEATS

3½"

3½"

2"

¾"   ¾"

12½"

1"

SHELF COMPART-MENT

DRAWER COMPARTMENT

RIGHT DIVIDER

FRONT EDGE

BACK RABBET

LEFT DIVIDER

SHELF SUPPORT CLEATS

SEPARATOR

FIGURE 8

A
TOP

C
RIGHT END

G
SEPARATOR

D
LEFT DIVIDER

B
LEFT END

A
BOTTOM

E
RIGHT DIVIDER

H
SHELF SUPPORT CLEATS

#8 x 1½" Fh WOODSCREW

BACK VIEW

FIGURE 9

H
SHELF SUPPORT CLEAT

POSITION CLEAT FLUSH WITH INSIDE EDGE OF RABBETS

#8 x 1½" Fh WOODSCREW

FIGURE 10

SCREW DETAIL

CLEAT

END

BOTTOM

COUNTERBORE FOR ½" DIA. PLUG

DRILL ³/₃₂" PILOT HOLE FOR #8 x 1½" Fh WOODSCREW

DRILL ³/₁₆" DIA. SHANK HOLE

DRAWER RUNNERS

After the rabbets, dadoes, and grooves are cut in the six main pieces, work can begin on the drawer runners.

Start by cutting 16 runners (F) ½"-thick and to width to match the dadoes, see Fig. 6. To help guide the drawers into place, I sanded a slight chamfer on the front corner of each runner, see Detail in Fig. 6.

After the runners are cut to size, glue them in so the front of each runner is flush with the front edge of the end or divider.

SEPARATORS AND SHELF CLEATS

There's a separate compartment in the back of the cabinet that has space for shelves, see Top View in Fig. 7. The shelves are held up with L-shaped pin-style shelf supports, see Detail in Fig. 12.

SEPARATORS. To hold the shelf supports (and also give the cabinet rigidity), I cut ¾" plywood separators (G) to fit between the ends and dividers, see Figs. 7 and 8.

SHELF SUPPORT CLEATS. Then to hold the shelf supports at the back of the cabinet, cut four cleats (H) from 4/4 stock (¹³/₁₆" actual thickness) to a width of 1" and the same length as the separators, see Fig. 7.

SUPPORT HOLES. After the separators and cleats are cut to size, drill ¼" holes for the pin-style shelf supports, see Fig. 7. To keep the holes aligned in all the pieces, I laid out the holes centered on one of the cleats and then used that cleat as a drilling guide for the other cleats and separators. (Note: Since the separators fit into ¼"-deep grooves, center the holes in the separators ¾" in from the edges.)

To make the pieces completely interchangeable (which makes assembly easier), I drilled the holes completely through the cleats and separators and kept the holes a uniform distance from each end.

MOUNTING HOLES. Next, to mount the cleats to the cabinet, drill three countersunk holes in each cleat, see Fig. 7.

ASSEMBLY

Once the holes are drilled, assembly can begin. To check that everything fits as it should, I started by dry assembling the entire cabinet with screws (counterboring the screw holes, see Screw Detail in Fig. 10.) Once I was sure the cabinet was square, I took out the screws and then applied glue before screwing it back together.

The procedure I used for assembly was to start by attaching the dividers (D and E) to the top and bottom aligning the front edges, see Fig. 8. Next, fit the separators (G) into the grooves in the dividers and glue and screw from the inside. Then attach the ends (B and C) to the top, bottom, and dividers. And finally, glue and screw in the shelf support cleats (H), see Fig. 9.
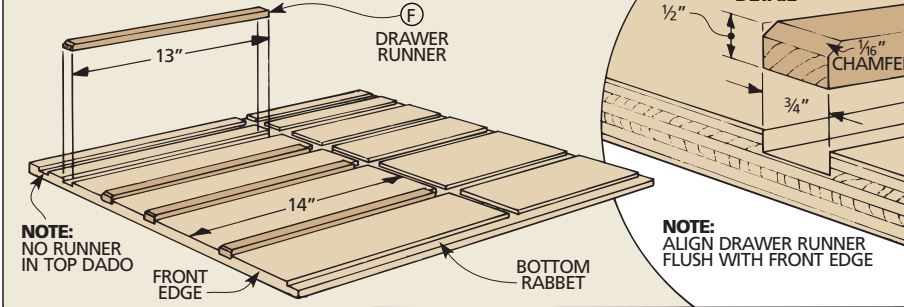
Now plug all the counterbored screw holes, see Fig. 10.

SHELF COMPARTMENT OPENING
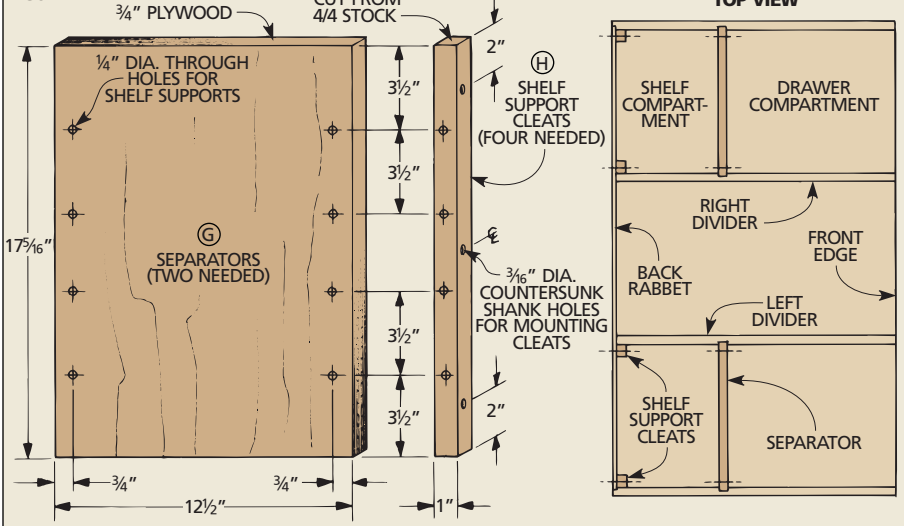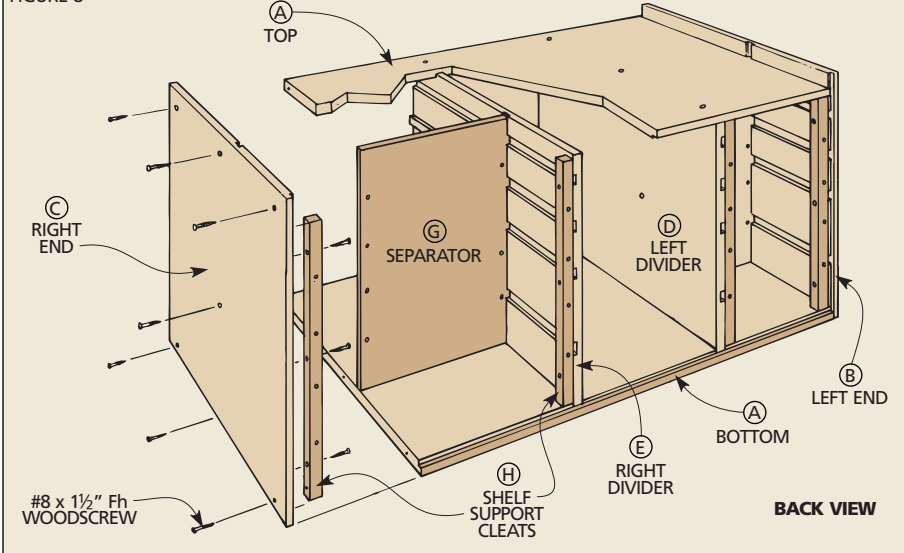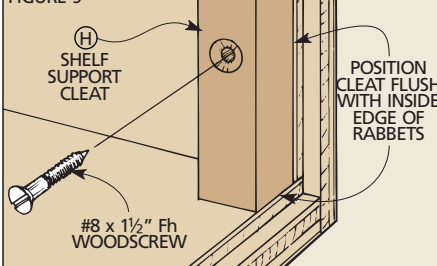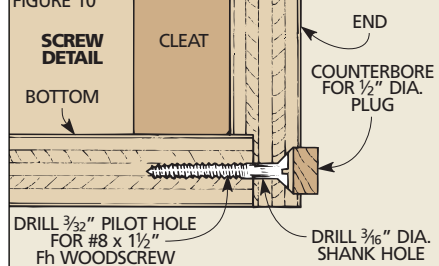
When the basic cabinet is assembled, openings can be cut in the ends so the shelf compartments can be reached from the sides of the cabinet, refer to Fig. 12. To get a clean opening in the plywood, there's a nifty trick using a sabre saw and a router.

Start by standing the cabinet up on end and lay out the opening with a pencil. (The opening corresponds to the inside edges of the cleat, top, bottom and separator.)

Next, drill $3/8$" holes at each corner about $1/8$" inside the penciled outline, see Fig. 11. Then rough cut the opening with a sabre saw staying about $1/8$" inside the outline, see Sabre Saw Detail in Fig. 11.

Now comes the trick. To clean up the last $1/8$", I used a flush trim router bit with a ball bearing pilot. The pilot runs against the inside of the cleat, top, bottom, and separator while the cutter trims up the last $1/8$" of plywood, see Router Detail in Fig. 11.

BACK PANEL. Next, cut the back panel (I) from a piece of $1/4$" Masonite to fit the back opening created by the rabbets, and nail it to the back edges of the dividers, see Fig. 12.

SHELVES. Then cut the shelves (J) from $3/4$" plywood to fit in the shelf compartments, see Fig. 12.

TRIM AND FILL

To cover all the plywood edges on the cabinet and shelves, rip some $1/4$"-thick trim strips from 4/4 stock, see Step 1 in Fig. 13. Then cut them to width to match the thickness of the plywood, Step 2 in Fig. 13.

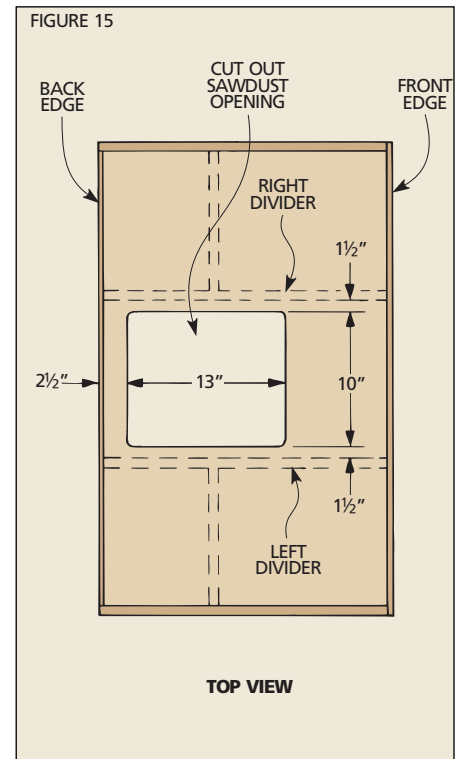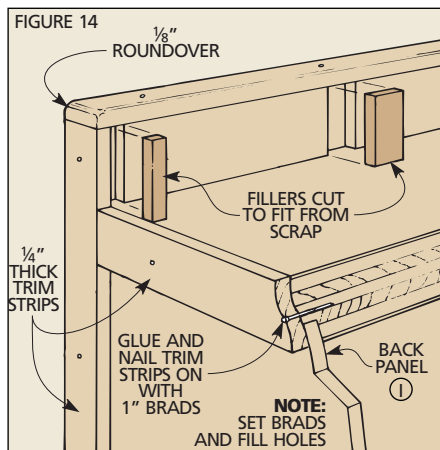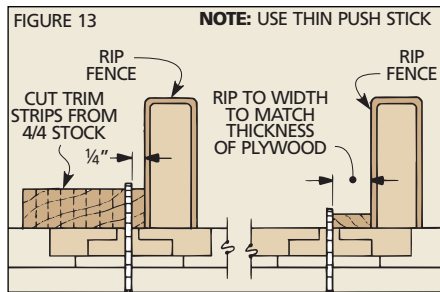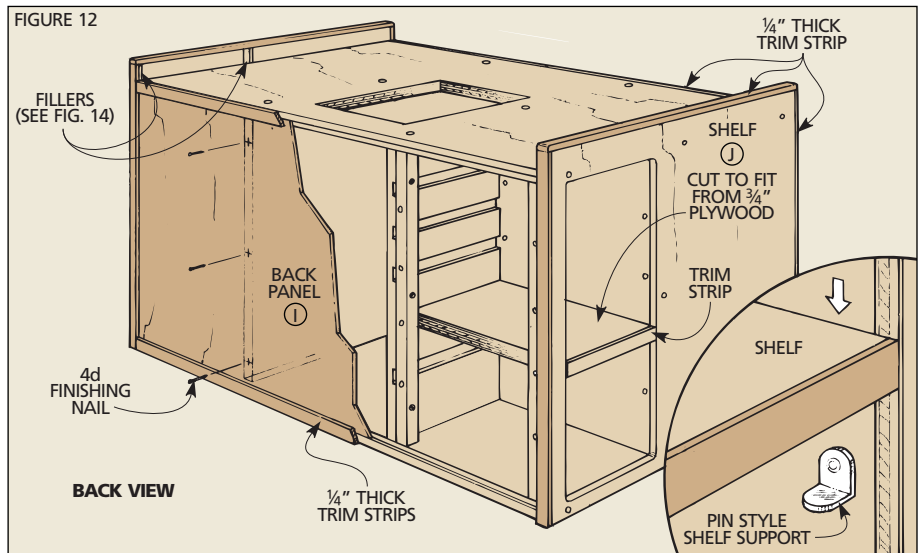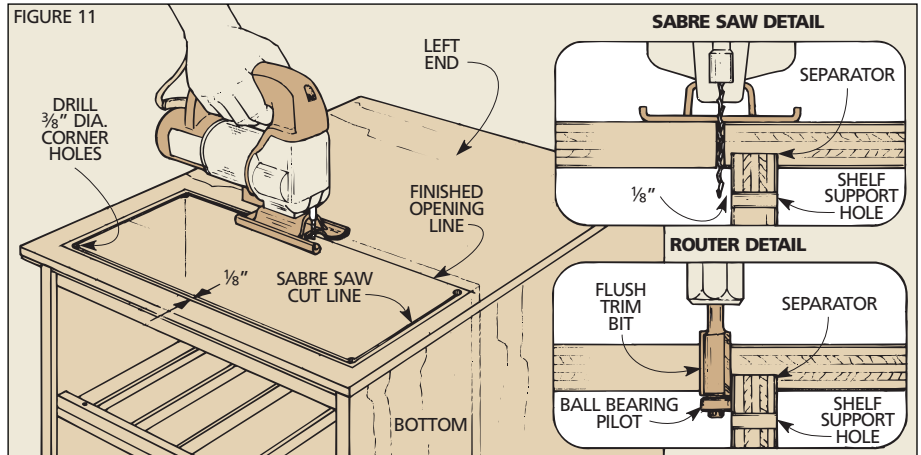ADD THE STRIPS. Now glue and nail the trim strips on with 1" brads and set the heads, see Fig. 14. (Note: The trim strips on the back edges of the cabinet hold in the back panel.) Finally, round over the top edges with a $1/8$" round-over bit.

FILL THE GAPS. After adding the trim strips, there are a couple gaps on the inside top of the ends that should be filled. (These gaps were created when the grooves and rabbets were cut.) To fill the gaps I cut a couple pieces of scrap and glued them in place, see Fig. 14.

SAWDUST OPENING

There's one more step to complete the basic cabinet - cutting the sawdust opening in the top. This opening allows the dust and chips to collect in a plastic trash bag mounted inside the cabinet.

Cut a 10" x 13" opening $2^{1}/2$" from the back edge of the top and centered between the dividers (D and E), see Fig. 15. (Note: This opening will fit both the 10" Sears and Delta/Rockwell saws. For other saws, check the opening on the saw and cut a corresponding opening in the cabinet.)

FIGURE 11
SABRE SAW DETAIL
ROUTER DETAIL
LEFT END
SEPARATOR
DRILL $3/8$" DIA. CORNER HOLES
FINISHED OPENING LINE
SHELF SUPPORT HOLE
$1/8$"
SABRE SAW CUT LINE
FLUSH TRIM BIT
SEPARATOR
BOTTOM
BALL BEARING PILOT
SHELF SUPPORT HOLE

FIGURE 12
$1/4$" THICK TRIM STRIP
FILLERS (SEE FIG. 14)
SHELF
J
CUT TO FIT FROM $3/4$" PLYWOOD
TRIM STRIP
BACK PANEL I
SHELF
4d FINISHING NAIL
BACK VIEW
$1/4$" THICK TRIM STRIPS
PIN STYLE SHELF SUPPORT

FIGURE 13
NOTE: USE THIN PUSH STICK
RIP FENCE
RIP FENCE
CUT TRIM STRIPS FROM 4/4 STOCK
RIP TO WIDTH TO MATCH THICKNESS OF PLYWOOD
$1/4$"

FIGURE 14
$1/8$" ROUNDOVER
FILLERS CUT TO FIT FROM SCRAP
$1/4$" THICK TRIM STRIPS
GLUE AND NAIL TRIM STRIPS ON WITH 1" BRADS
BACK PANEL I
NOTE: SET BRADS AND FILL HOLES

FIGURE 15
BACK EDGE
CUT OUT SAWDUST OPENING
FRONT EDGE
RIGHT DIVIDER
$1^{1}/2$"
$2^{1}/2$"
13"
10"
$1^{1}/2$"
LEFT DIVIDER
TOP VIEW

FIGURE 16

DRAWER CONSTRUCTION

TACK ¼" MASONITE BOTTOM TO BACK WITH BRADS

11¼"

BACK

SIDE

Q BOTTOM ¼" MASONITE

FRONT

½"

CENTER PULL 1⅝" FROM TOP EDGE OF EACH DRAWER

11⅞"

DRAWER RUNNER GROOVE

13¾"

#8 x 1" Fh WOODSCREW

1⅞"

SMALL DRAWER HEIGHT = 3¼"
LARGE DRAWER HEIGHT = 5¼"

JOINT DETAIL

3/16"

3/8" 5/8"

½" STOCK

BACK

SIDE

½" STOCK

4/4 STOCK

½"

¼"

FRONT

FIGURE 17

DRAWER RUNNER

3¼"

5¼"

1⅝" TYPICAL

1/16" GAPS

1/16" GAPS

FIGURE 18

¼"

1"

13/16"

3¼"

¼" ROUNDOVER AFTER ASSEMBLY

SMALL DRAWER

¼"

3/16"

1"

13/16"

5¼"

¼" ROUNDOVER AFTER ASSEMBLY

LARGE DRAWER

¼"

¼"

3/16"

FIGURE 19

R BACK

CUT ALL PIECES FROM 4/4 STOCK

S SIDE

2"

10⅜"

R FRONT

18⅛"

CHIP CATCHER CONSTRUCTION

#8 x 1½" Fh WOODSCREW

FIGURE 20

SIDE

½"

¼"

FRONT

4/4 STOCK

#8 x 1½" Fh WOOD SCREW

CORNER DETAIL

4/4 STOCK

FIGURE 21

CHIP CATCHER ON EDGE

ROUTER TABLE FENCE

1"

½" CORE BOX BIT

¼"

FIGURE 22

#8 x 1" Fh WOODSCREW

18⅝"

T

CHIP CATCHER RUNNER ¼" THICK x 1¼" WIDE MASONITE

SIDE

FRONT

FIGURE 23

ALIGN WITH INSIDE EDGE

1¼"

CHIP CATCHER

MASONITE RUNNER

SIDE

THE DRAWERS
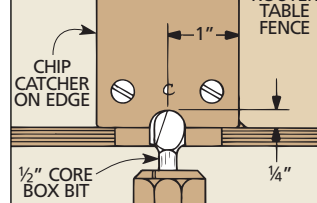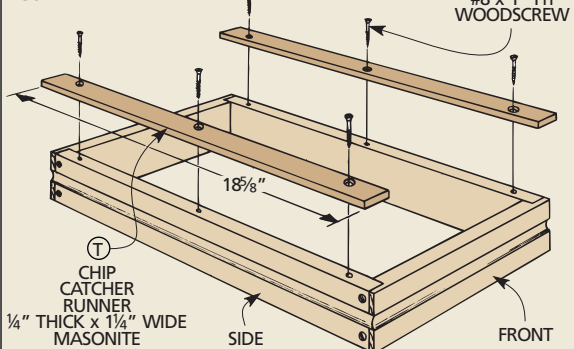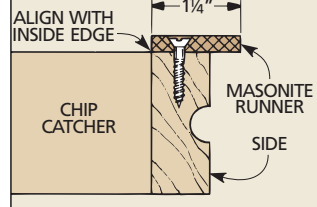
After the cabinet is complete, the eight drawers can be built to fit the openings. There are two drawer heights, but they're both constructed the same way.

DRAWER FRONTS. Begin by cutting the fronts (K) for the four small drawers from 4/4 stock to a width of 3¼" and the fronts (L) for the four large drawers to a width of 5¼", see Fig. 16. To determine the length of all the fronts, measure the cabinet opening and subtract ⅛" to allow for a 1/16" gap on each side.

DRAWER SIDES. Next, cut eight small drawer sides (M) and eight large drawer sides (N) from ½" stock to match the width of the fronts, and cut them all to a common length of 13¾", see Fig. 16.

The drawer sides have two grooves. Cut one groove 13/16" wide on the outside of each drawer side for the drawer runners to slide in. Also, cut a ¼"-wide groove on the inside of each drawer side and drawer front to accept the ¼" bottom, see Fig. 18.

JOINTS. The drawer sides are joined to the fronts with rabbet joints that are secured with screws. Cut the rabbets on the drawer fronts to match the thickness of the drawer sides (½"), see Detail in Fig. 16.

Then to accept the drawer back, cut a ½"-wide dado on the inside of the drawer sides ⅜" from the back edge.

DRAWER BACKS. Now cut the drawer backs (O and P) from ½" stock to fit between the dadoes in the sides and wide enough to rest on top of the drawer bottoms (right at the top of the grooves).

Now clamp the drawer together and drill countersunk screw holes through the sides and into the back, see Fig. 16.

DRAWER BOTTOMS. Temporarily screw the drawer together, and measure and cut eight drawer bottoms (Q) from ¼" Masonite to fit in the grooves and under the back. Now assemble each drawer with glue and screws. Then slide in the bottom, and nail it to the drawer back.

When the drawer is dry, round over the inside top edges. Then mount a pull on the front of each drawer, see Fig. 16.

CHIP CATCHER

The chips and sawdust that fall through the opening in the top of the cabinet are caught in a plastic trash bag. To hold the bag (and make it easier to pull out for emptying), I built a chip catcher frame.

FRAME. Start by cutting the front/back pieces (R) from 4/4 stock to a width of 2" and a length of 10⅜", see Fig. 19. Then cut two sides (S) 2" wide and 18⅛" long.

Now cut rabbets on the front and back pieces, and screw the frame together, see Fig. 20.

KEEPER GROOVE. The trash bag is held to the frame with a large rubber band or "bungee" tie-down cord that fits in a cove

around the frame. To cut the cove, use a ½" core box bit on the router table and rout all four sides of the frame, see Fig. 21.

RUNNERS. The frame is held in the cabinet with ¼" Masonite runners (T) that ride on top of a couple cleats, refer to Fig. 25. Screw the runners down to the top edge of the frame so the inside edge is flush with the inside of the frame, see Figs. 22 and 23.

CLEATS. Next, cut two cleats (U) from 4/4 stock to a width of 1¼" and a length of 21". To help guide the frame into place, chamfer the top front corner of the cleats, see Cleat Detail in Fig. 25.

Now screw the cleats to the dividers 2¼" from the front of the cabinet and down from the top, see Figs. 24 and 27.

DOOR

After I was sure the chip catcher would slide easily into the opening, I began work on the door that covers the chip catcher opening. The door is made with a pegboard panel that provides additional space to hang tools and saw blades.

STILES AND RAILS. I built the door using stub tenon and groove joinery (see Woodsmith No. 29 for more on making this joint). First, cut the stiles (V) from ½" stock to a width of 1¼" and ⅛" less in length than the height of the opening, see Fig. 26. Then measure the width of the opening and cut the rails (W) to length, subtracting the width of both stiles and a 1/16" gap on both sides of the door, and adding an allowance for the ¼"-long stub tenons on each end. (In my case, this made the rails 10⅞" long.)

GROOVES AND TENONS. Now cut ⅛"-wide grooves (to accept the ⅛" pegboard panel) on the inside edge of each stile and rail. Then cut stub tenons on the ends of the rails to match the grooves.

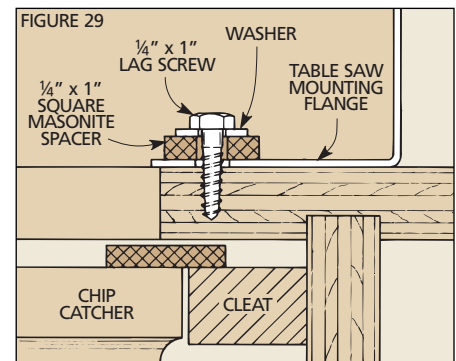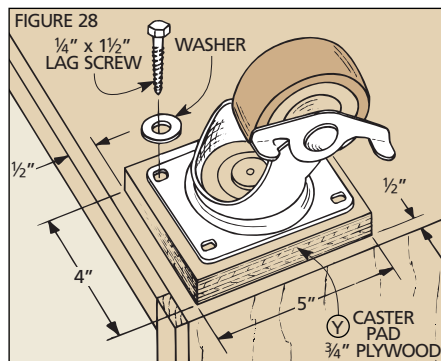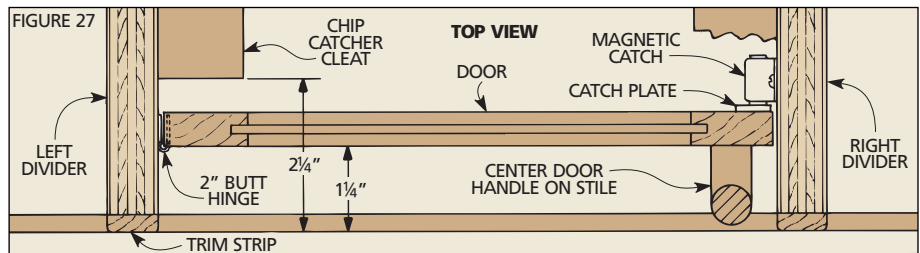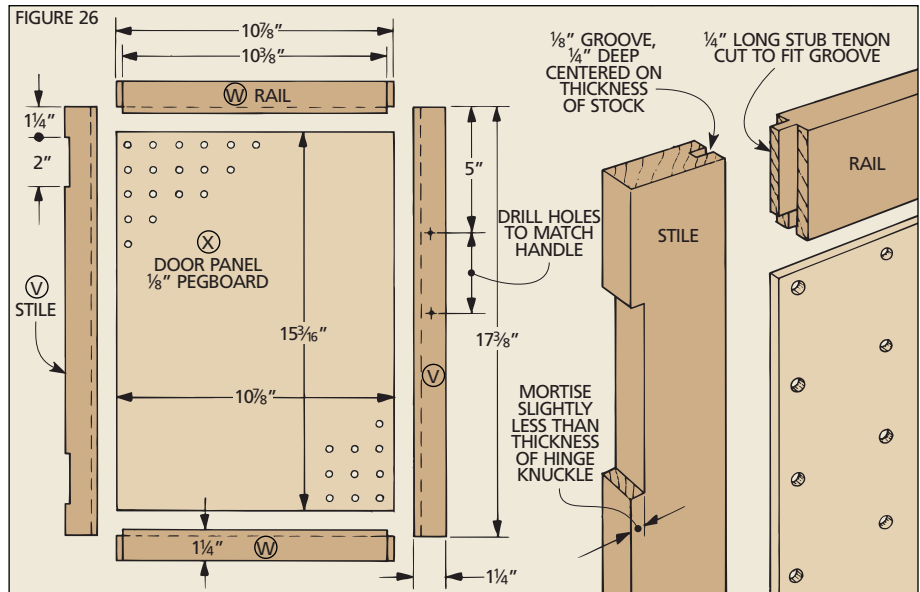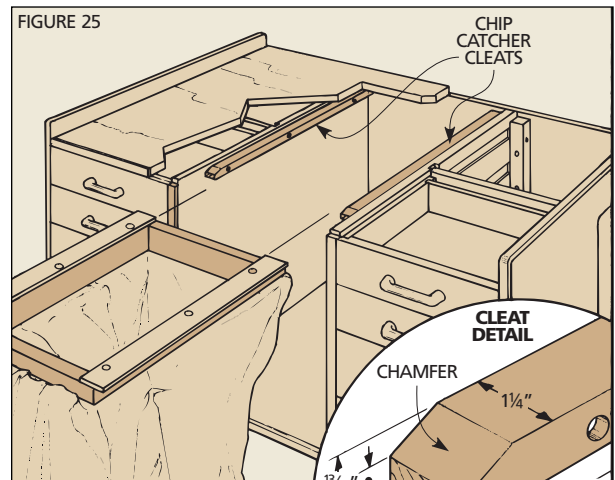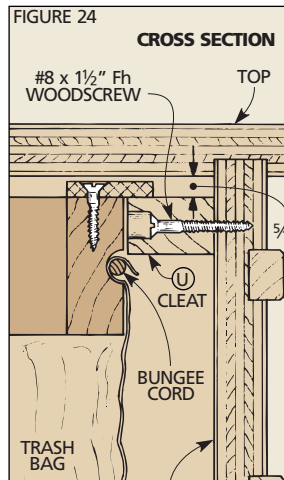**PEGBOARD PANEL.** After the tenons are cut, dry assemble the frame, and cut the pegboard panel (X) to size to fit in the grooves, see Fig. 26. Then glue the frame together with the panel in the grooves.

HINGE MORTISES. Once the door is glued together, cut 2"-long hinge mortises in the left stile, see Fig. 26. (Note: Mortise to a depth slightly less than the thickness of the hinge knuckle.) Then mount the hinges in the mortises, and mount the door to the inside of the opening so that the face sets back 1¼" from the front edge of the cabinet, see Fig. 27.

HANDLE AND CATCH. To complete the door add a handle (pull), and mount a magnetic catch to the divider and catch plate on the back of the door, see Fig. 27.

CASTER PADS. To hold casters to the bottom of the cabinet, I glued caster pads (Y) on each of the corners. Then I screwed the casters to the pads, see Fig. 28.

FINISHING. I finished the cabinet with three coats of Deft Clear Wood Finish, and then screwed the saw to the top with lag screws and Masonite spacers, see Fig. 29.

FIGURE 24 — CROSS SECTION
#8 x 1½" Fh WOODSCREW — TOP — U CLEAT — BUNGEE CORD — TRASH BAG — 5/16

FIGURE 25 — CHIP CATCHER CLEATS — CLEAT DETAIL — CHAMFER — 1¼"

FIGURE 26 — 10⅞" — 10⅜" — 1¼" — 2" — W RAIL — STILE V — DOOR PANEL ⅛" PEGBOARD X — 15³⁄₁₆" — 10⅞" — 1¼" W — 5" — 17⅞" — V — 1¼" — ⅛" GROOVE, ¼" DEEP CENTERED ON THICKNESS OF STOCK — DRILL HOLES TO MATCH HANDLE — ¼" LONG STUB TENON CUT TO FIT GROOVE — RAIL — STILE — MORTISE SLIGHTLY LESS THAN THICKNESS OF HINGE KNUCKLE

FIGURE 27 — TOP VIEW — CHIP CATCHER CLEAT — DOOR — MAGNETIC CATCH — CATCH PLATE — LEFT DIVIDER — 2" BUTT HINGE — 2¼" — 1¼" — CENTER DOOR HANDLE ON STILE — RIGHT DIVIDER — TRIM STRIP

FIGURE 28 — ¼" x 1½" LAG SCREW — WASHER — ½" — 4" — 5" — ½" — Y CASTER PAD ¾" PLYWOOD

FIGURE 29 — WASHER — ¼" x 1" LAG SCREW — TABLE SAW MOUNTING FLANGE — ¼" x 1" SQUARE MASONITE SPACER — CHIP CATCHER — CLEAT

Outfeed Table

After building the table saw cabinet, I decided to add an outfeed table. I wanted this table to be permanently attached to the saw (not a separate unit that has to be set up each time you use it - like a roller stand).

I also wanted to be able to fold the outfeed table down so the saw could be rolled against a wall. This design does just that. (And it can be built to fit any saw, with or without the cabinet.)

ARMS

The outfeed table is supported by two arms (A) that are attached to the extension wings of the table saw, see Fig. 1. Begin by cutting these arms from 4/4 stock ($^{13}/_{16}$" actual thickness) to a width of $3^1/_2$" and a length of 40".

Note: This length assumes the table saw top is 27" deep - that's typical for most 10" Sears and Delta/Rockwell saws - so the arms project 13" behind the saw.

LAG SCREW SLOT. The outfeed table is held to the arms and pivots to the "down" position on two lag screws. These screws slide in $^1/_4$"-wide slots routed into the arms.

To make these slots, first drill two $^1/_4$"-dia. end holes centered on the width of each arm and $8^1/_2$" apart, see Fig. 1. Now clean out the area between the holes with a $^1/_4$" straight bit on the router table (or with a hand-held router and edge guide). Rout in a series of passes increasing the depth until the bit cuts through the workpiece.
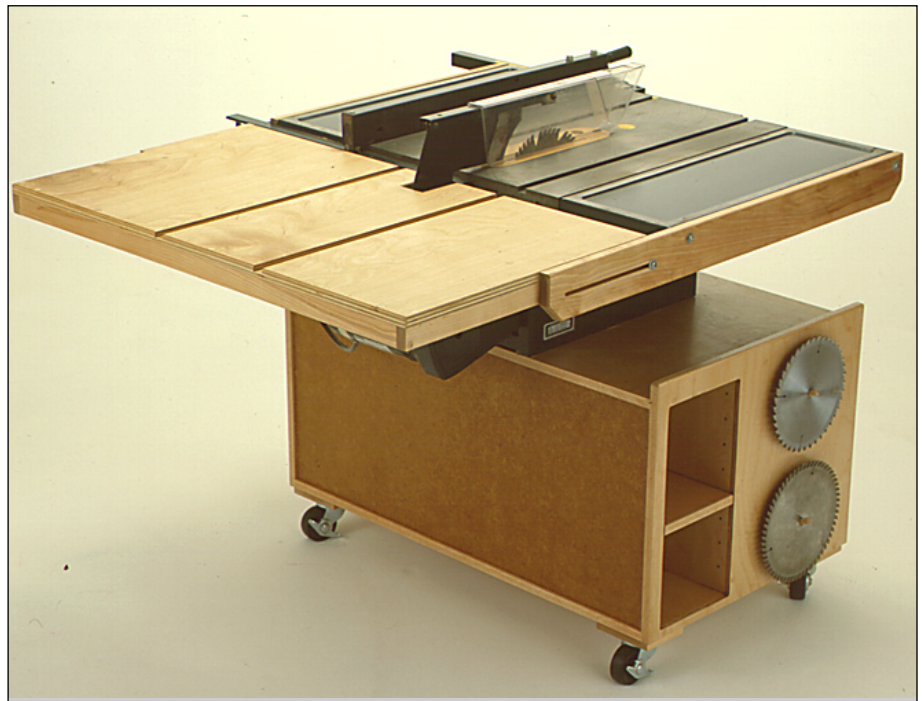
NOTCH FOR RAIL. After the slot is routed, cut a notch in the right arm to fit around the saw's rear rip fence rail, see Fig. 1. (I cut a 2"-deep by $2^1/_4$"-wide notch. This fits around the rails on most saws.)

TRIM OFF CORNERS. Next, to break the sharp corners, I trimmed a 45° angle off the bottom corners of the arms and routed a $^1/_8$" chamfer on the outside edges, see Bolt Detail in Fig. 1.

ATTACHING THE ARMS. The arms are bolted to the outside edges of the saw extension wings (or the table itself if it doesn't have extensions), see Bolt Detail in Fig. 1. (Note: If the table top or extensions don't have holes in the edges, drill two $^1/_4$"-dia. holes near each end.)

Then to locate the bolt holes in the arms, clamp the arms to the edge of the table with the top edge of the arm aligned flush with the table saw top. Reach under the table and mark through the bolt holes.

Once the holes are marked, remove the arms from the saw, and drill a $^5/_{16}$"-dia. (oversized) hole at each mark. Then bolt the arms to the saw with $^1/_4$" bolts, see Detail in Fig. 1. (The holes are drilled oversize to allow for final adjustment.)

THE TABLE

After the arms are securely mounted, work can begin on the outfeed table. The table is made out of a piece of $^3/_4$" plywood fastened to the top of a support frame, see Fig. 2.

PLYWOOD TOP. To determine the width of the plywood top (B), measure the distance between the arms, and cut the top about $^1/_{16}$" less than this measurement so it won't bind between the arms, see Fig. 1. Then cut it to a length of 24". (Note grain direction in Fig. 2.)

MITER GAUGE SLOTS. Since the saw's miter gauge often gets pushed beyond the back of the saw, miter gauge slots have to be cut into the outfeed table. To determine the location of these slots, I clamped the plywood top into place between the arms.

Then I transferred the location of the slots to the plywood and routed the slots slightly wider than the existing saw slots.

FRAME SIDES. Next, the support frame can be built. Start by cutting two frame sides (C) to a width of $1^1/_2$" and to the same length as the plywood top (24").

FIGURE 1

10$^3/_4$"   2$^1/_4$"   40"

1$^3/_4$"   3$^1/_2$"   2"   (A)   **NOTE:** NOTCH ONLY ONE ARM FOR REAR RIP FENCE RAIL   1$^1/_4$"

1$^3/_4$"   8$^1/_2$" $^1/_4$" WIDE SLOT

RIP FENCE RAIL

PLYWOOD TOP EQUALS $^1/_{16}$" LESS THAN DISTANCE BETWEEN ARMS

BOLT DETAIL
ALIGN ARM FLUSH WITH TOP OF TABLE SAW
$^5/_{16}$" DIA. HOLE
$^1/_4$" x 1$^1/_2$" BOLT
$^1/_8$" CHAMFER
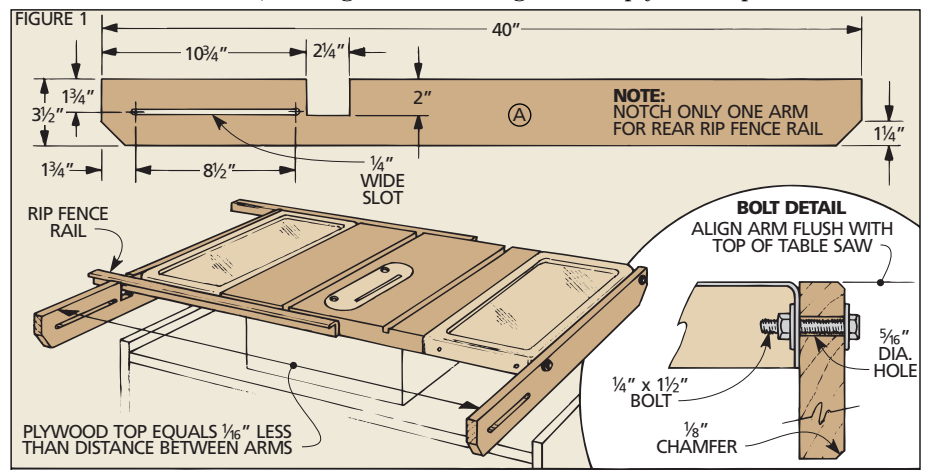
Now clamp these pieces under the ply-wood top flush with the edges, and drill counterbored screw holes, see Fig. 3.

STRETCHERS. After the top is screwed down to the sides, measure the distance between the sides. In my case this was $38^5/_{16}$". Then cut two stretchers (D) to this length.

Now screw one stretcher under the far end of the table and another $10^1/_2$" from the near end, see Fig. 2. Finally, drill and screw through the side frames into the ends of the stretchers and plug all the screw holes, see Fig. 3.

SUPPORT BLOCKS. To add a little more strength to the pivot point on the arms, I glued a support block (E) to the front (open) end of each arm and rounded over the bottom to a $^1/_2$" radius, see Detail in Fig. 2.

GLIDE RAILS

To support the table, I added glide rails (F) to the arms (A). To determine the width of these glide rails, clamp the table between the arms so the top is flush with the top edge of the arms. Then measure the distance from the bottom of the frame side (C) to the bottom of the arm, see Fig. 4. Now cut the glide rails to a length of 12" and mount them to the arms, see Fig. 5.

GUARD NOTCH. You will have to cut out a notch in the front of the table for the safety guard. The notch has to be wide enough so the guard can tip to a full 45°. For a Sears saw this means a notch about $2^1/_4$" wide and $3^1/_2$" deep, see Fig. 2.

CHAMFER EDGES. After the notch is cut, rout a $^1/_8$" chamfer around all the outside edges of the table top and frame.

ASSEMBLY

The table is connected to the arms with lag screws used as pivot pins. To locate them, clamp the table in place so the front edge is aligned with the notch in the right arm, see Fig. 6. Then drill through the front end of the slot into the frame side in two steps.

First, use a $^1/_4$" brad point bit in the $^1/_4$" slot to drill in just enough to make a centering hole, see Step 1 in Fig. 7. Then drill a pilot hole with a $^3/_{16}$" bit, see Step 2. Finally, screw in a $^1/_4$" x 2" lag screw with a washer (but not too tight), see Step 3.

STOP PIN. The last step is to prevent the outfeed table from sliding out of position. Clamp the table into place with the lag screw tight against the front end of the slot. Then drill a $^1/_4$"-dia. hole up from the bottom through the glide rail and $^3/_8$" into each of the frame sides, see Fig. 8.

Then lift up the table and glue a $^1/_2$"-long dowel into the hole in the frame side, see Detail in Fig. 8.

Now the table is ready to use. To put it into the "down" position, lift up slightly (enough to lift the pin out of the hole), slide the table forward, and pivot it down.

FIGURE 2
24"
CHAMFER OUTSIDE EDGES $^1/_8$"
B
NOTCH IS CUT SO TABLE SAW GUARD CAN BE TIPPED TO A FULL 45°
STRETCHER
D
C
C
DETAIL
SUPPORT BLOCK
E
E
$^1/_2$" RADIUS
3"
$1^1/_2$"
$1^1/_2$"
$10^1/_2$"
CUT ALL FRAME PIECES FROM 4/4 STOCK

FIGURE 3
CROSS SECTION
SCREW HOLE PLUGS
$^3/_8$"
$^3/_4$"
#8 x $1^1/_4$" WOOD-SCREWS
$1^1/_2$"
$^3/_8$"
$^3/_{16}$" DEEP
NOTE: COUNTERBORE SCREW HOLES $^3/_{16}$" DEEP

FIGURE 4
CROSS SECTION
A
TABLE TOP AND ARM SHOULD BE FLUSH
C
$2^1/_4$"
#8 x $1^1/_4$" WOODSCREW
F
GLIDE RAIL
$^5/_8$"
$1^1/_4$"

FIGURE 5
CUT GLIDE RAILS FROM 4/4 STOCK
$^1/_2$"
12"
$^1/_2$"
$2^1/_4$"

FIGURE 6
CLAMP FRONT EDGE OF OUTFEED TABLE FLUSH WITH NOTCH
DRILL INTO FRAME SIDE WITH BIT CENTERED AGAINST END OF SLOT

FIGURE 7
CROSS SECTION
1
USE $^1/_4$" BRAD POINT BIT TO MARK CENTER OF HOLE
2
DRILL A $^3/_{16}$" PILOT HOLE, 2" DEEP CENTERED ON FIRST HOLE
3
NOTE: DON'T OVERTIGHTEN LAG SCREWS
$^1/_4$" x 2" LAG SCREW

FIGURE 8
CLAMP TABLE TO GLIDE RAIL
1 LIFT UP
CROSS SECTION STOP PIN DETAIL
STOP PIN
2 PULL OUT
STOP PIN HOLE
1"
$^1/_4$" HOLE CENTERED ON GLIDE RAIL
STOP PIN ($^1/_4$" DOWEL)
$^1/_2$"
$^1/_8$"
STOP PIN HOLE
SLIGHTLY CHAMFER BOTTOM