

How to Build Cabinets the Quick-and-Easy Way

America's leading woodworking instructor, Marc Adams, shows you how to design and make your own custom cabinets.

In this article, you'll learn essential cabinetmaking skills as we build this dry sink.



There are as many approaches to building cabinets as there are cabinetmakers. We asked one of the best, Marc Adams, *right*, to show how he balances the demands of fast-but-simple construction, durability, function, and appearance to create the dry sink shown *opposite*. This dry sink is essentially a typical face-frame base cabinet, just like

the ones in most kitchens, but with a base and top to give it a furniture appearance. You can easily modify this basic design and technique to fit your needs or to create a roomful of cabinets.

Though cabinets may appear intimidating to build, they require only basic skills that you can hone into furniture-making proficiency.



Marc Adams understands the value of building your own cabinets. He was a full-time cabinetmaker before opening The Marc Adams School of Woodworking in Franklin, Indiana, in 1994. In addition to teaching at his school, Marc has authored numerous woodworking books and magazine articles, and produced a series of instructional videos. (See **More Resources**, page 63.)

Why build when store-bought cabinets are so cheap?

Any home center offers a selection of ready-made cabinets at reasonable prices. But building your own allows you to select the hardware, wood species, finish, and other details. Store-bought cabinets are typically made of particleboard held together with staples and hotmelt glue. Building

them yourself, you can use better materials and stronger joinery, and still be dollars ahead. And custom cabinets can be sized to use floor space efficiently. Ready-made cabinets come in 3" length increments and require filler strips to bridge gaps between the end of a row of cabinets and the wall.

FIRST, SELECT FROM THREE TYPES OF DOORS AND DRAWERS

As you begin designing a cabinet, consider the look of the drawers and doors, because they make up much of the visible portion of a cabinet. Choose from full-overlay, partial-overlay, or inset [Drawing 1].

A **full-overlay** is easiest to make because the door or drawer front rests in front of the face frame. This overlay masks any discrepancies in the fit between the face frame and the drawer or door. Marc chose this style for the dry sink.

A **partial-overlay** requires rabbeting the back faces of the door and drawer. This slightly reduces the door and drawer-face size and their exposed thickness, revealing more of the face frame.

An **inset** offers a sleek, custom look, but requires a precise fit of the drawer face and door into the face-frame openings. Precision in construction and hardware installation is critical to create even gaps around all four edges.

Make hard(ware) choices

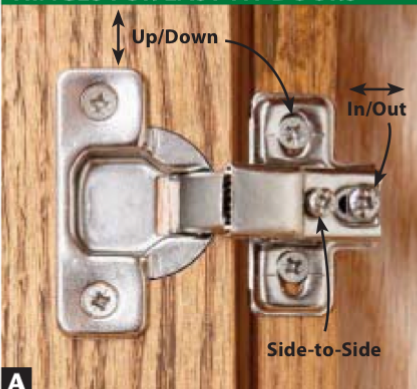
The most important hardware decision is the type of **drawer slides**. For the light-duty use expected of most cabinets, epoxy-coated roller slides from the home center provide good performance at an economical price. (See page 72 for other drawer-slide choices, and details on mounting them.)

Adams' Insight: If the drawer-slide manufacturer offers a mounting jig, buy one; it greatly simplifies installation.

Knobs and pulls add character to a cabinet. You'll find hundreds of styles in catalogs and online.

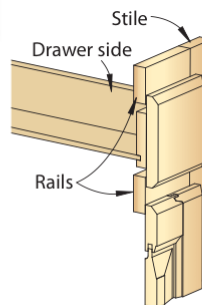
The type of door determines the **hinges**. You'll find dozens of hinge choices for each type of door. The dry sink uses a 35mm European-style cup hinge with a 1/2" overlay [Photo A]. The hinges hide behind the closed door and offer easy three-way adjustability.

HINGES FOR EASY-FIT DOORS



A European hinges adjust in three planes: up/down; in/out; and side-to-side for adjusting the door square with the face frame.

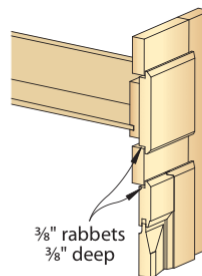
1 DOOR AND DRAWER OPTIONS



FULL-OVERLAY

Full thickness of drawer face and door rests on surface of face frame.

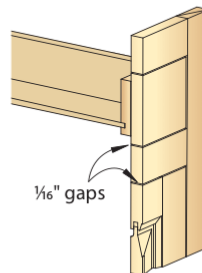
Make drawer faces and doors 1" longer and wider than openings.



PARTIAL-OVERLAY

One-half of drawer-face and door thickness rests on surface of face frame.

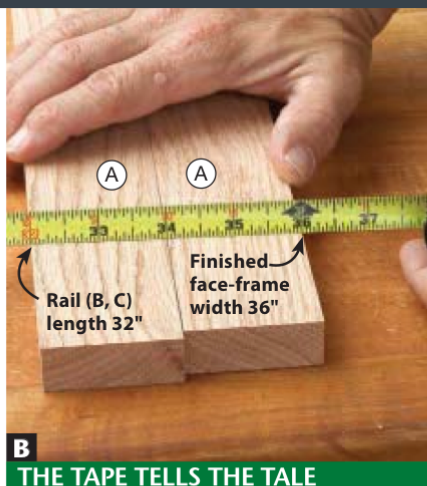
Make drawer faces and doors 1/2" longer and wider than openings.



INSET

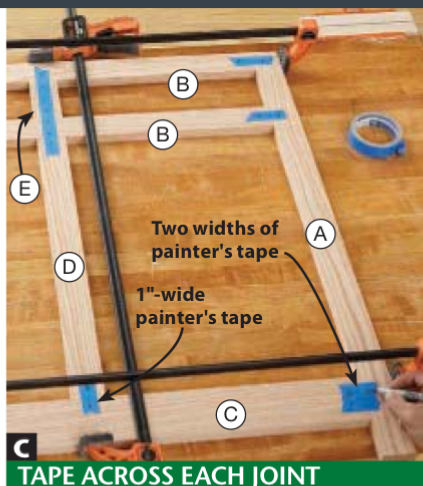
Fronts of drawer face and door rest flush with face frame.

Make drawer faces and doors 1/8" shorter and narrower than openings.



B THE TAPE TELLS THE TALE

With the stiles (A) side by side, align the face-frame width (36") with one edge. Read the rail length (32") at the opposite edge.



C TAPE ACROSS EACH JOINT

Label each half of each joint with matching numbers for easy repositioning of the parts after drilling the dowel holes.



D DRILL THE DOWEL HOLES

Align the jig's $\frac{3}{8}$ " mark on jig with edge of tape. Drill the hole. Reposition to the other tape edge and drill the second hole.

START WITH THE FACE FRAME

Marc's method of cabinet construction utilizes a solid-wood face frame attached to the front of a plywood carcass. The face frame strengthens the carcass and provides mounting points for drawer slides and door hinges. Marc joins his face-frame components with dowels because they're strong, instantly align the parts, and the holes are quick to drill. Dowels also allow for cutting grooves in the assembled face frame without any danger of hitting a screw.

Adams' Insight: Cabinet carcasses consume a lot of shop real estate. Save space by building the face frames first. Half a dozen face frames stack against a wall in less space than a single carcass. Take measurements for the doors and drawers from the face frames, build them, and build the space-eating carcasses last.

The standard maximum width for a cabinet is 36". Beyond that, doors tend to warp, and their solid-wood panels expand excessively. For spaces wider than 36", design two narrower cabinets.

On typical 36"-tall cabinets, the face frame stops $3\frac{1}{2}$ " from the floor to provide toe room. However, this dry sink has no toekick, so the face frame runs the full height of the carcass. Allowing for the $\frac{3}{4}$ "-thick top (V) makes the face-frame stiles (A) $35\frac{1}{4}$ " long [Drawing 2].

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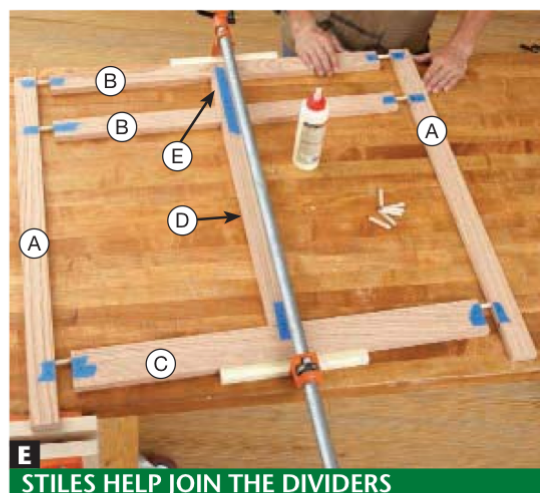
Use the stiles (A) to determine the length of the upper and lower rails (B, C) [Photo B].

Next cut the door divider (D) and drawer divider (E) to length.

On your bench, arrange the face-frame pieces and hold them together temporarily with 1"-wide painter's tape [Photo C]. The edges of the tape serve as layout marks for the doweling jig later, so center the tape across each joint. Use two strips side by side across the lower rail (C) and stiles (A).

With a razor knife, cut the tape across each joint, then drill the dowel holes [Photo D, Drawing 2].

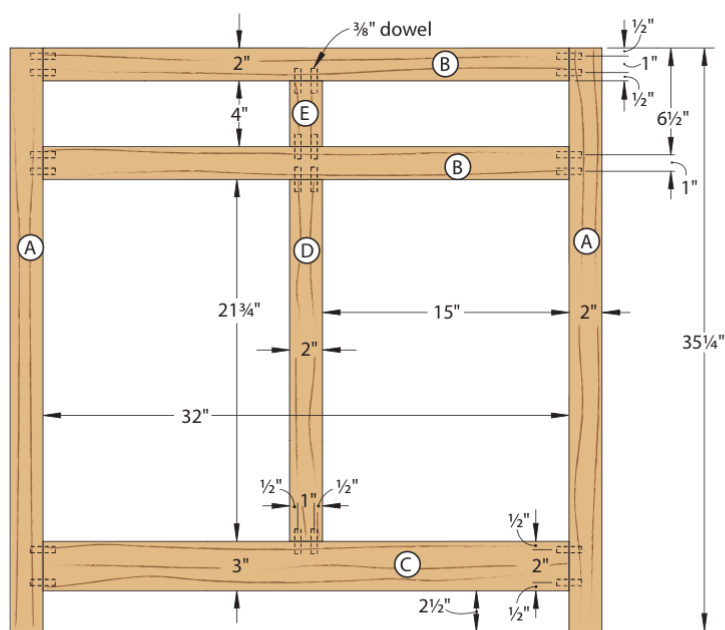
Glue and clamp the dividers between the rails [Photo E]. After the glue dries, glue the stiles in place, checking for square and that the frame lies flat.

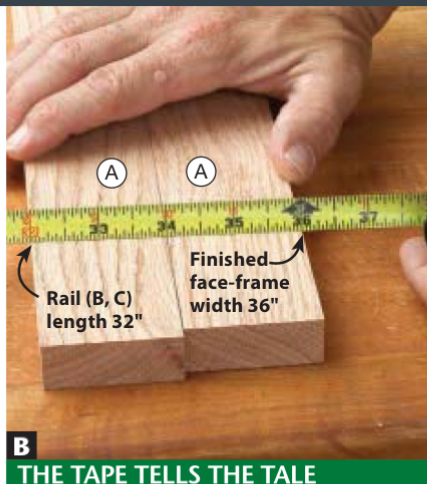


E STILES HELP JOIN THE DIVIDERS

Dry-fit a dowel in each stile (A) joint to hold the rail (B, C) ends in position while gluing the dividers (D, E) between the rails.

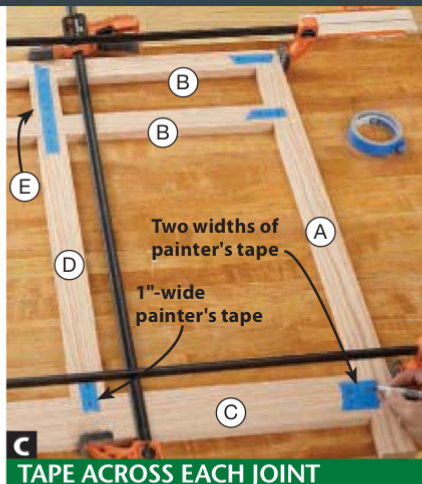
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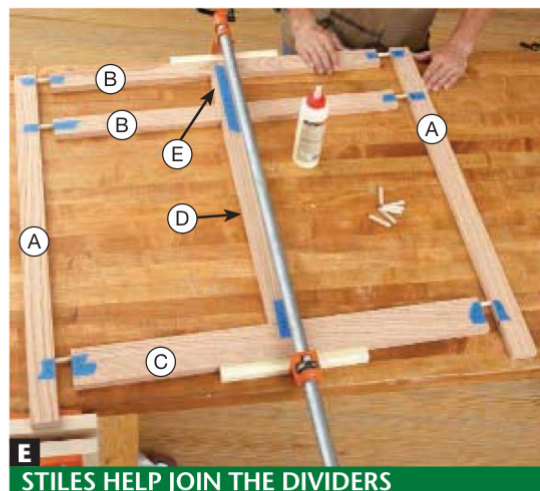
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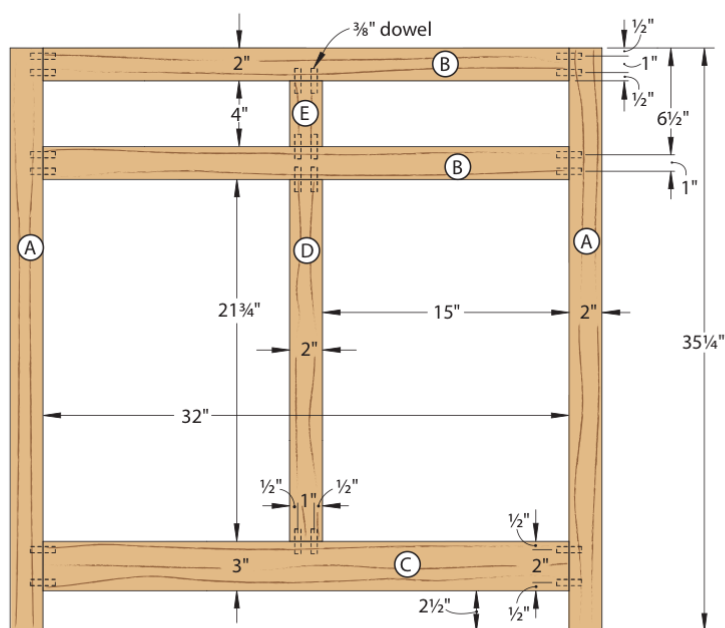
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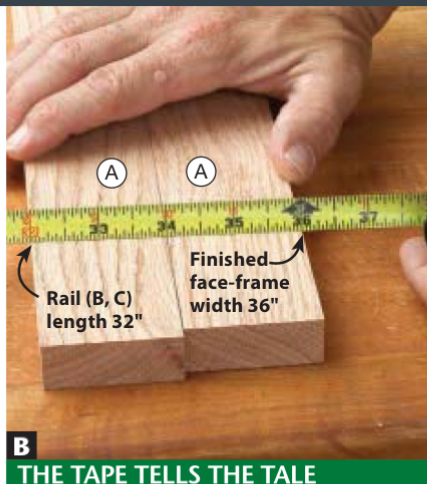
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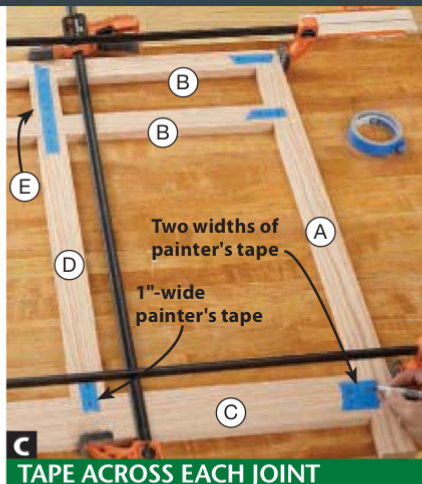
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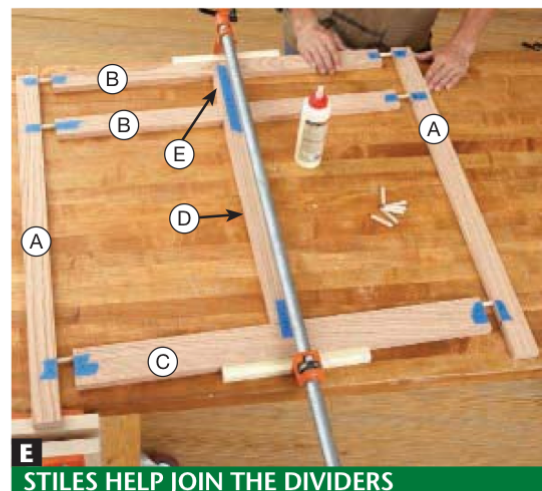
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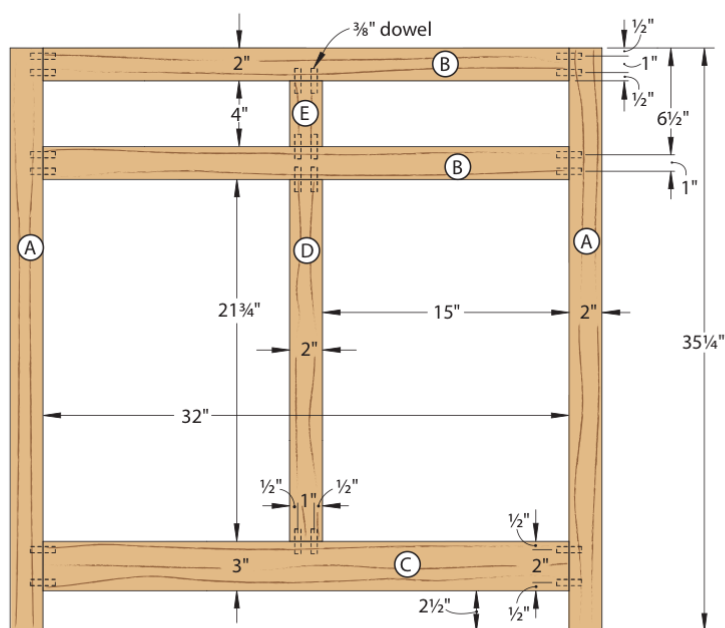
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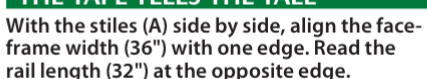
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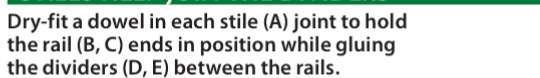
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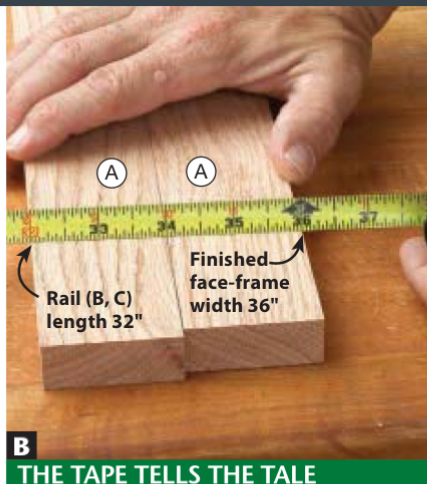
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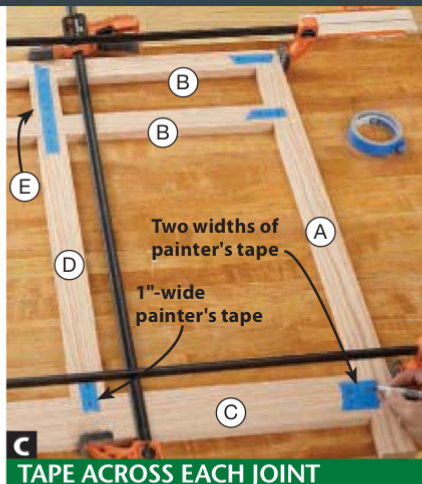
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[illegible]



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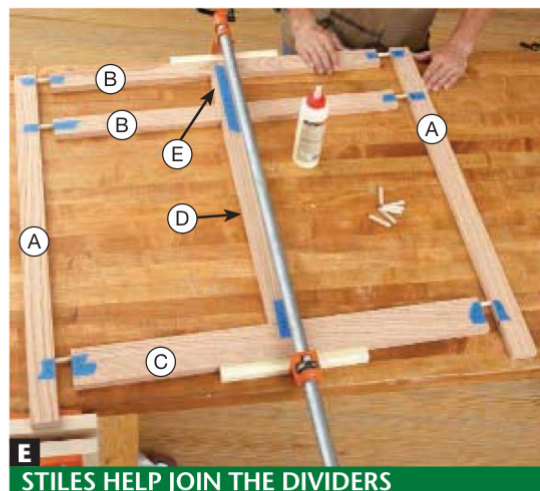
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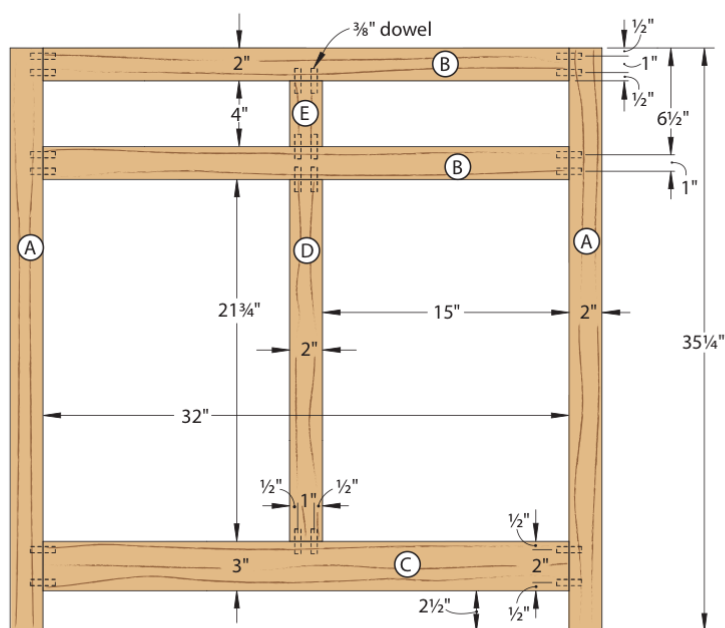
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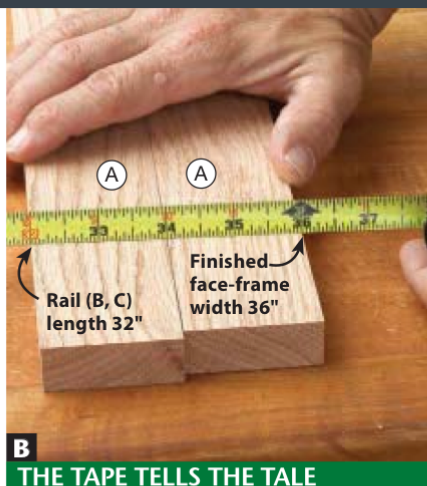
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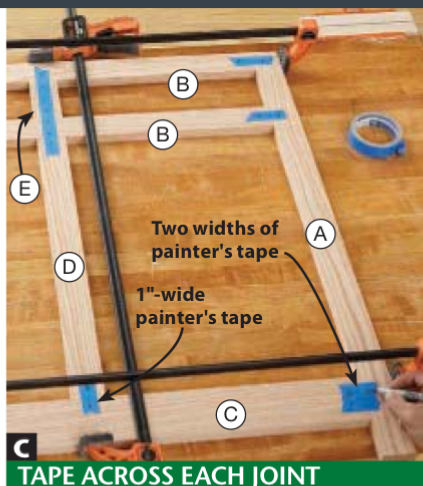
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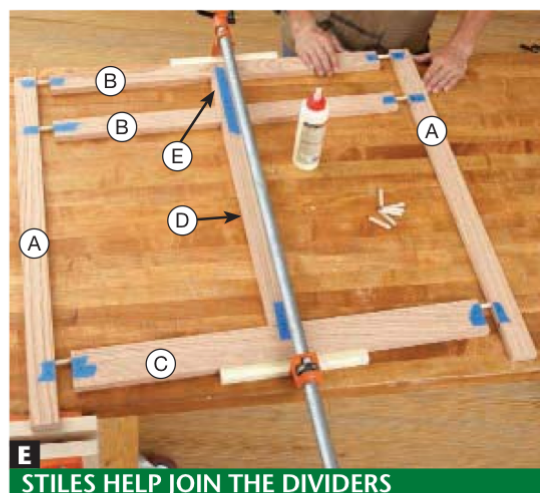
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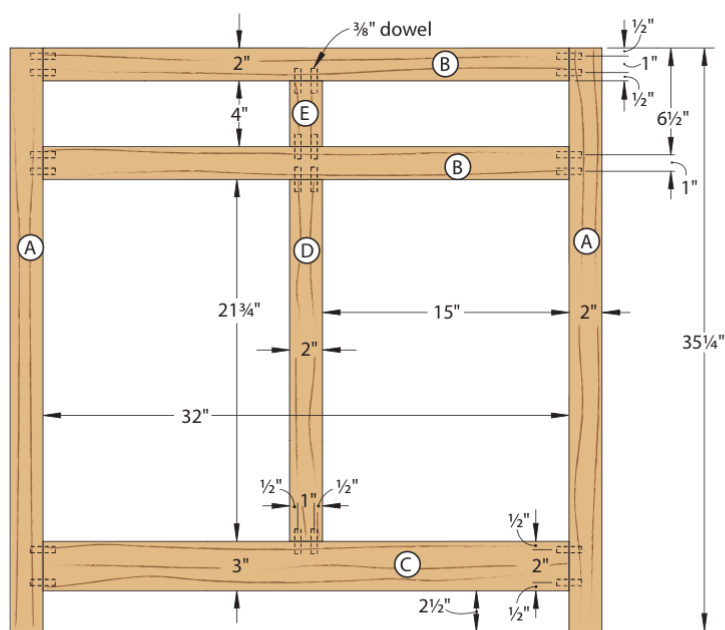
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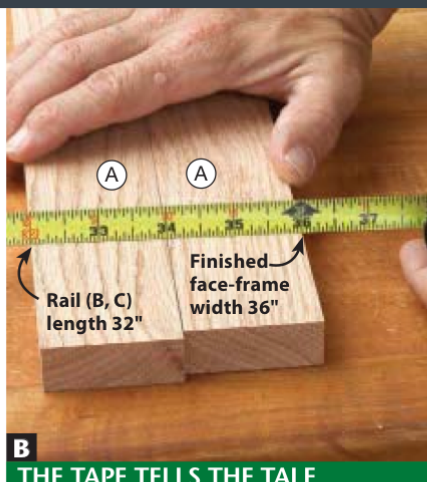


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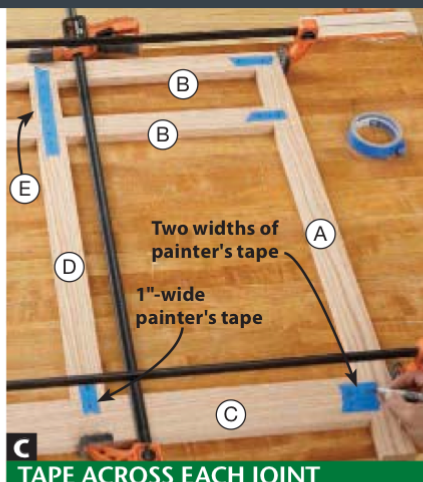
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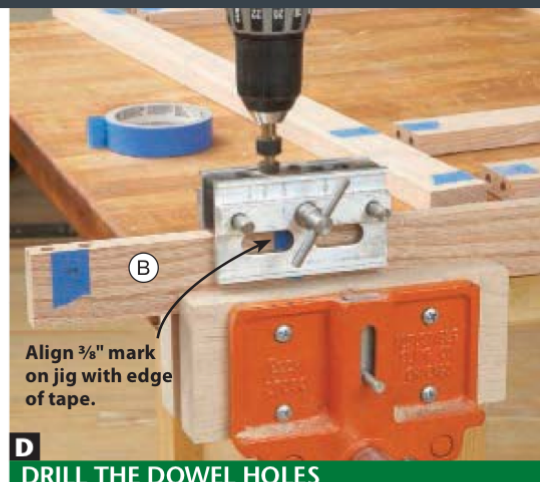
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The standard maximum width for a cabinet is 36". Beyond that, doors tend to warp, and their solid-wood panels expand excessively. For spaces wider than 36", design two narrower cabinets.

On typical 36"-tall cabinets, the face frame stops $3\frac{1}{2}$ " from the floor to provide toe room. However, this dry sink has no toekick, so the face frame runs the full height of the carcass. Allowing for the $\frac{3}{4}$ "-thick top (V) makes the face-frame stiles (A) $35\frac{1}{4}$ " long [Drawing 2].

Adams' Insight: You can make face-frame parts any width you like, but building them with 2"-wide material greatly simplifies math. And to further reduce the chance for errors, always take measurements directly from previously cut or assembled project parts whenever possible.

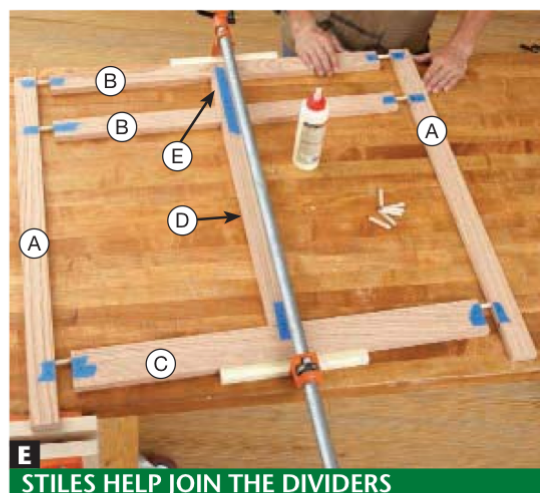
Use the stiles (A) to determine the length of the upper and lower rails (B, C) [Photo B].

Next cut the door divider (D) and drawer divider (E) to length.

On your bench, arrange the face-frame pieces and hold them together temporarily with 1"-wide painter's tape [Photo C]. The edges of the tape serve as layout marks for the doweling jig later, so center the tape across each joint. Use two strips side by side across the lower rail (C) and stiles (A).

With a razor knife, cut the tape across each joint, then drill the dowel holes [Photo D, Drawing 2].

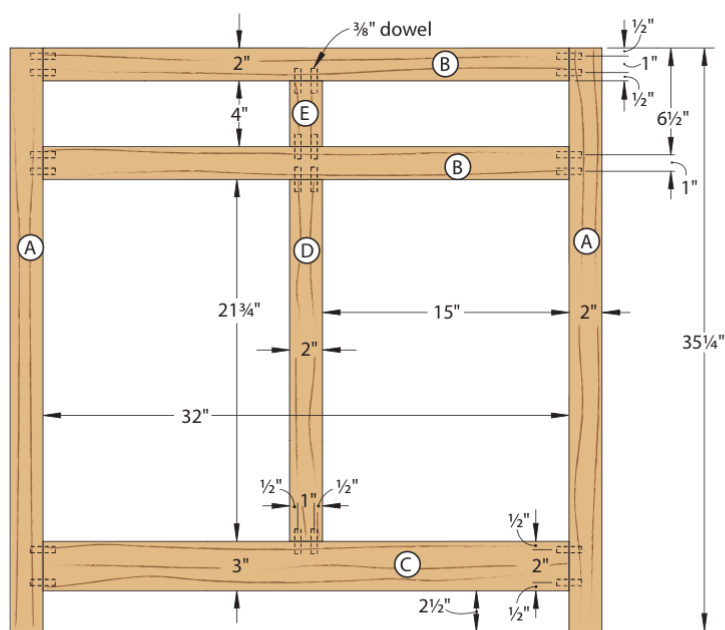
Glue and clamp the dividers between the rails [Photo E]. After the glue dries, glue the stiles in place, checking for square and that the frame lies flat.

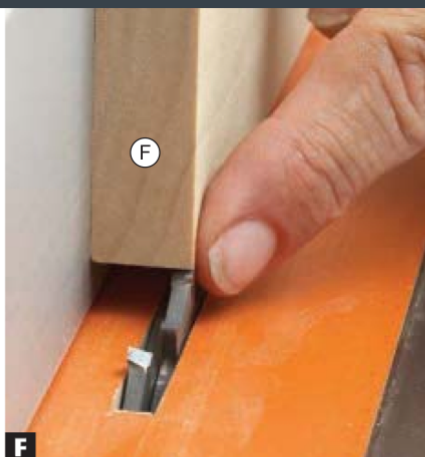


E STILES HELP JOIN THE DIVIDERS

Dry-fit a dowel in each stile (A) joint to hold the rail (B, C) ends in position while gluing the dividers (D, E) between the rails.

2 FACE FRAME





F SET UP FOR A LOCK-RABBET JOINT

Place a drawer front (F) against the rip fence. Position the fence so the face of the front is flush with the outside edge of a tooth.

BUILD THE DRAWERS

Choices abound in drawer joinery, from simple nailed-together butt joints to the classic beauty of dovetails. Marc prefers the strong, quick-to-make **lock rabbet**, a joint that can be cut on the tablesaw with a dado blade.

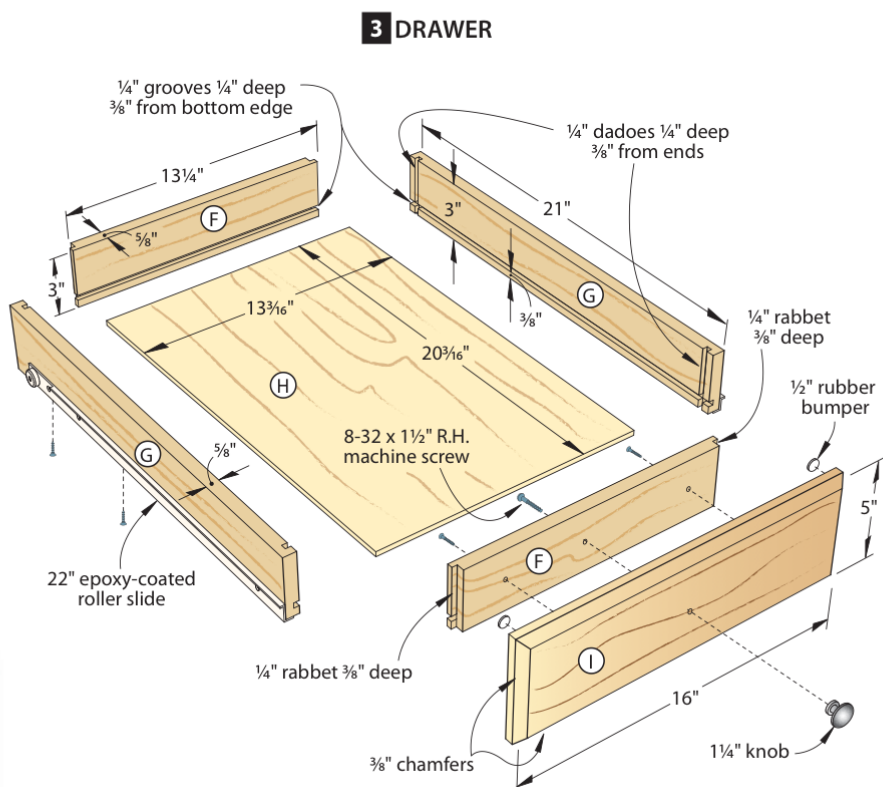
Adams' Insight: Most drawer slides require a drawer box 1" narrower than the drawer opening in the face frame, allowing ½" clearance for each slide. With the face frame built, this makes easy work of determining the drawer-box width. Exact drawer height matters less, so keep the math easy by making the width of the drawer sides, front, and back 1" less than the height of the opening.

As for the length of the drawer, 22" slides are the longest that fit in a 24"-deep cabinet. Epoxy-coated roller slides have mounting brackets at the rear [Drawing 8]. Allowing 1" for the bracket makes the drawer length 21".

With dimensions determined, cut the drawer fronts and backs (F), and sides (G) to size [Drawing 3], along with an extra front to use as a test piece when setting up the tablesaw.

Mount a ¼" dado blade in your table-saw. Use a drawer front (F) to set the rip fence [Photo F], then set the blade ¼" above the table [Drawing 4].

Cut a dado across each end of the drawer sides (G) [Step 1, Drawing 4]. With the same setup, cut a groove in the drawer sides and drawer fronts and backs (F) to accept the drawer bottoms (H). Raise the blade to ⅜" above the table, attach an auxiliary fence to the rip fence, and adjust the auxiliary fence next to the blade [Step 2, Drawing 4]. Make a cut on the test piece with this setup and check that the tongue fits the



dadoes in the sides; then rabbet the drawer fronts and backs.

Dry-fit the drawers, and cut the drawer bottoms (H) to size to fit between the grooves, less ⅛" in each dimension. Finish-sand the parts to 220 grit, easing the sharp edges of the drawer box, then glue them up. As with the face frame, assemble them on a flat surface to prevent twist, and compare the diagonal measurements to ensure square.

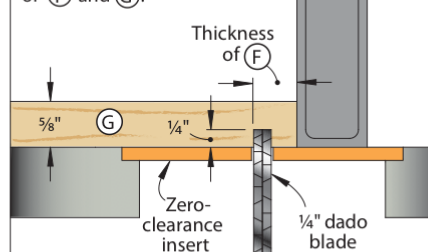
Adams' Insight: The length of the drawer faces (I) should match the door width, and the door width depends on the type of door and hinge you choose. This cabinet's doors use hinges with ½" of overlay in each direction, making the doors 1" wider than the door openings. So the drawer faces must be 1" longer than the drawer openings. Likewise, the width of the drawer face is 1" greater than the opening's height.

After cutting the drawer faces (I) to size, rout ⅜" chamfers around the front edges [Drawing 3]. Then, finish-sand them to 220 grit, and set the drawers and faces aside.

4 HOW TO CUT A LOCK-RABBET JOINT

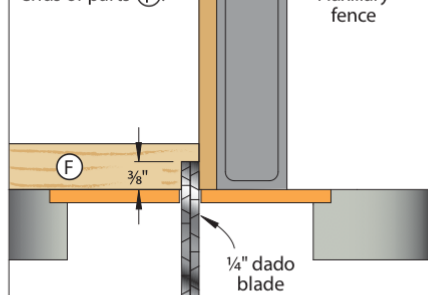
STEP 1

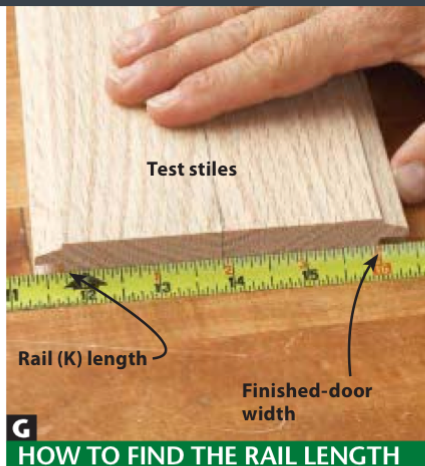
Cut a dado in both ends of parts (G) and a groove in the bottom inside faces of (F) and (G).



STEP 2

Rabbet both ends of parts (F).





G HOW TO FIND THE RAIL LENGTH

Align the finished-door width (16") with the bottom of a groove. Read the rail (K) length (11 3/4") at the bottom of the other groove.



H MOUNT THE JIG

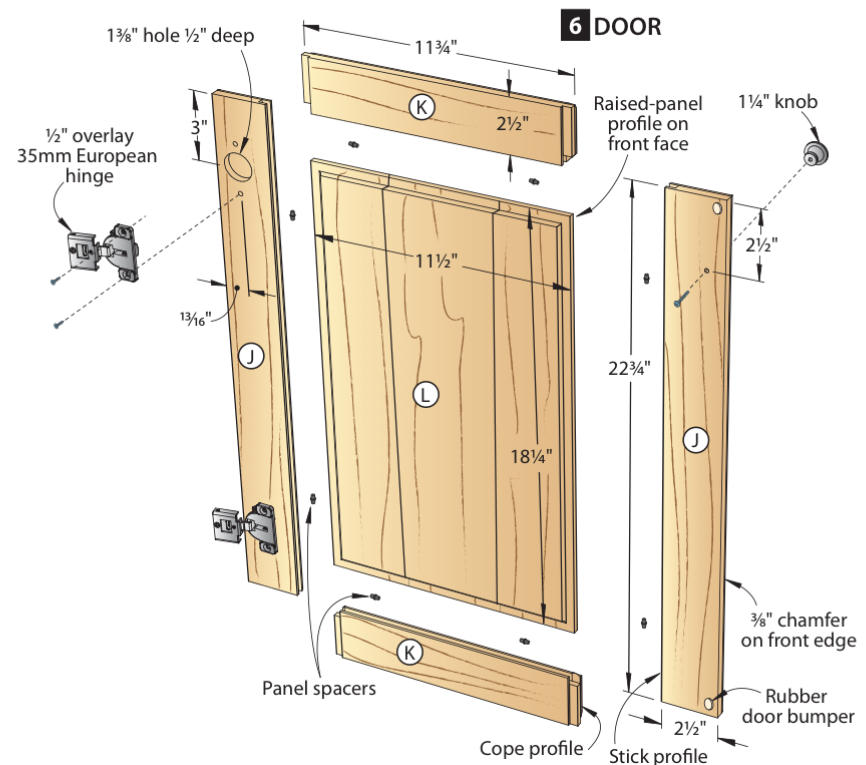
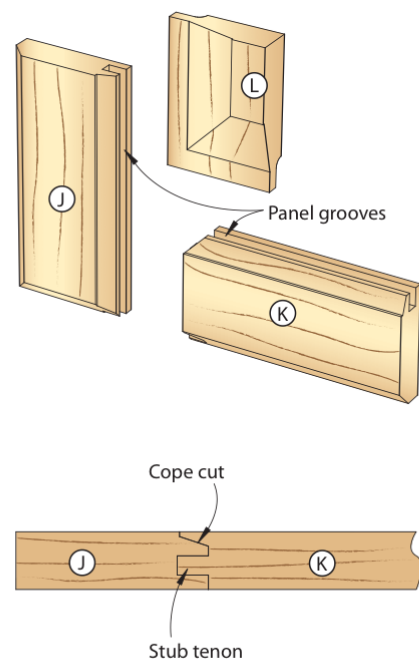
Clamp one end of the jig to the router table, align the fence with the rail-cutter's bearing, then clamp the opposite end of the jig.



I SET THE RAIL-CUTTER HEIGHT

Rest a rule on a cutoff from the jig's runner. Set the bit height to create a 3/16"-deep rabbet on the back of the 3/4"-thick rails (K).

5 COPE-AND-STICK JOINERY



SWING ON TO MAKING THE DOORS

Adams' Insight: I prefer a **cope-and-stick** joint [Drawing 5] for doors because the decorative profile adds visual interest. A special router bit (a rail cutter) forms a stub tenon on the ends of the rails (K) as it copes them to mate perfectly with the profile on the stiles (J). A mating bit (a stick cutter) mills in the rails and stiles a groove to accept the panel as it also creates the decorative profile on the outer face of the groove.

It takes test cuts to set up each bit, but once set, pieces can be routed quickly. I use the jig shown opposite for cutting these joints.

Note: Routing the raised panels for the doors requires a router with at least 2 1/4 hp and variable speed.

Plane stock to 3/4" thick for the door stiles (J), rails (K), panels (L), and a couple of extra rails to use as test pieces, then rip them to width [Drawing 6]. Glue up overlay door panels, then set them aside.

Determining the length of the door stiles (J) is easy. To account for the 1/2" overlay at each end, cut the stiles 1" longer than the height of the door opening.

The rails (K) require a bit more math. They need to fit between the stiles, and account for the stub-tenon lengths, the width of the stiles, and the overlay.

Adams' Insight: There are a lot of chances for error to creep in when determining rail length. To get an accurate dimension, make a gauge for taking direct measurements. First, set up a stile-cutting router bit in your router table and set the height to roughly center the groove cutter on the thickness of a test piece. Make a pass along one edge of a test piece, then crosscut the piece in half.

Knowing the finished width of the door (1" more than the door-opening width—16" in this case), place the test stiles back to back and take one simple measurement to determine the rail length [Photo G].

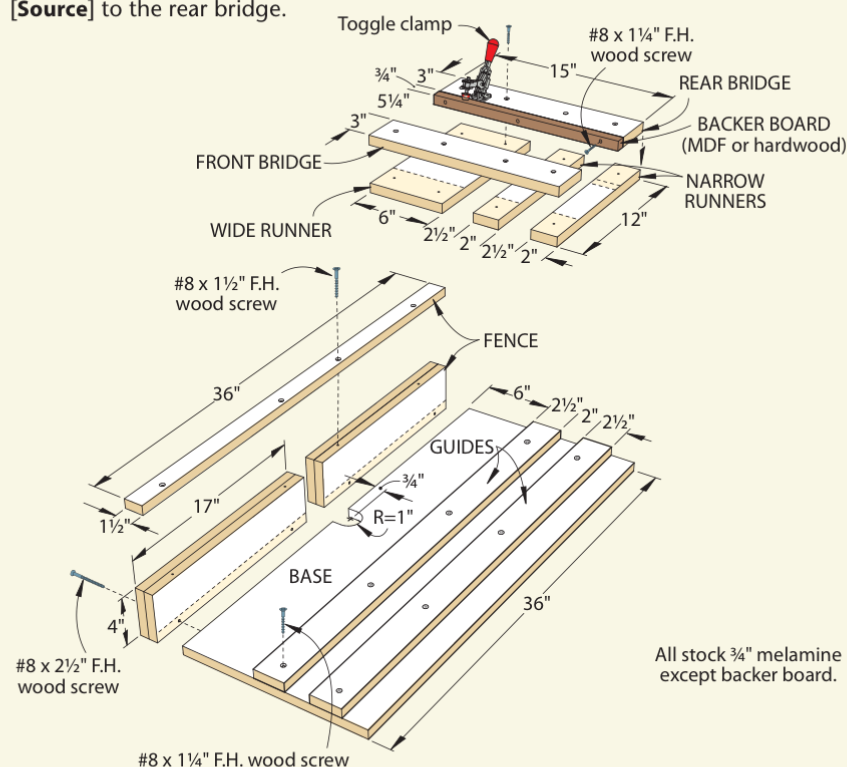


Technical drawing of a Springboard. The drawing shows a perspective view of a wooden board with the following dimensions and features:

- Overall length: 10"
- Overall width: 5"
- Top edge thickness: 2"
- Bottom edge thickness: 2 1/2"
- Side edge thickness: 3/4"
- Distance from top edge to first hole: 2"
- Distance between holes: 5"
- Distance from bottom edge to first hole: 1 1/4"
- Hole diameter: 1/4" hole
- Bottom edge feature: 1/16" saw kerf

Remove the jig from the router table, and mount a raised-panel bit in the router **[Photo L]**.

Screw, but don't glue, a replaceable backer board to the front edge of the rear bridge. Position the remaining narrow runner to the outside of the guides, then screw the rear and front bridges to the runners, square to the fence. Screw a toggle clamp **[Source]** to the rear bridge.



Adams' Insight: If the hole in your router-table insert plate is too small for the raised-panel bit, make a new insert from hardboard or plywood.

Position the router-table fence to reveal about one-third of the bit's profile. Set the router to its slowest speed. Rout the raised panel in several passes, moving the fence back between each pass to reveal more of the bit until, on the final pass, the bit's bearing aligns with the router-table fence.

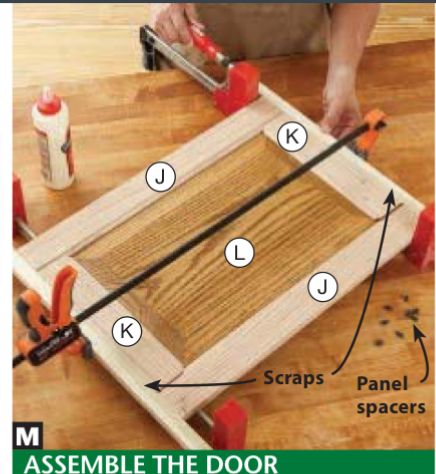
Dry-fit the door with the panel to test the fit, then disassemble it. Finish-sand the profiles on the stiles (J) and rails (K). Finish-sand the panel (L) and apply a stain to it. (We used Varathane gel stain no. 21179 Early American.)

Adams' Insight: Staining the panel before assembly prevents unstained edges from showing when the panel contracts due to seasonal wood movement.

Brush glue on the rail (K) tenons, insert two panel spacers [Source] in each groove [Drawing 6], and clamp up the door [Photo M]. Do not apply any glue to the panel. Check that the assembly remains flat and square.

After the glue dries, drill the hinge cup holes [Drawing 6].

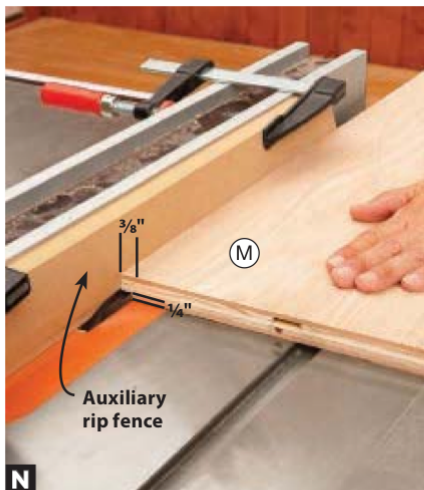
Adams' Insight: Don't fret if you can't find a 35mm Forstner bit. A 1 $\frac{3}{8}$ " Forstner bit measures 34.925mm and works fine.



M ASSEMBLE THE DOOR

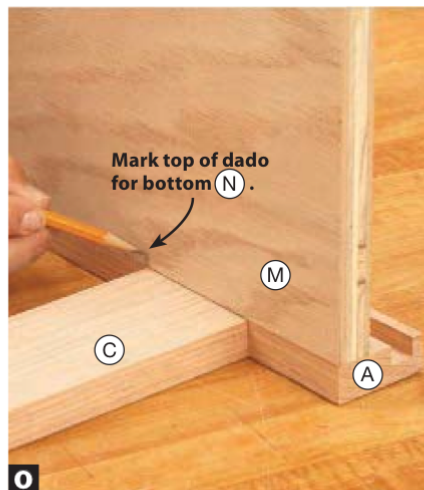
Scraps align the tops of the rails (K) with the ends of the stiles (J). Remove the scraps after tightening clamps against the stiles.

Rout $\frac{3}{8}$ " chamfers around each door front to match the drawer profile, then finish-sand the rails and stiles to 220 grit.



N RABBET THE SIDES

Cut a $\frac{3}{8}$ " rabbet, sneaking up on the blade height to create a tongue that fits the groove in the face-frame stiles (A).



O MARK THE BOTTOM DADO

Position a side (M) flush with the bottom of the face-frame stile (A) and mark the position of the top of the lower rail (C).

Plywood balances durability and expense

Adams' Insight: Sheet goods make carcass construction quick and easy. Although particleboard and MDF are widely used in commercial cabinets, plywood better tolerates damp kitchen and bathroom conditions. It comes in a variety of species, even prefinished. A single sheet of $\frac{3}{4}$ " plywood yields one cabinet using the methods shown here. (See **More Resources** for tips on working with sheet goods.)

For a series of base cabinets mounted side by side, as in a kitchen, save money by choosing plywood with a lower-grade veneer, then covering only the exposed face of the end cabinet with $\frac{1}{4}$ " plywood to match the face-frame material.

CREATE THE CARCASE

Size the sides (M) [Drawing 8] to create a 24"-deep cabinet with the face frame attached. (Allow for the $\frac{3}{8}$ "-deep groove cut in the stiles in the next step.)

Mount a $\frac{1}{2}$ " dado blade in your table-saw. Retrieve the face frame (A–E) and cut a $\frac{3}{8}$ "-deep groove on the inside face of each stile (A) [Drawing 8].

Adams' Insight: Cutting the groove $\frac{1}{4}$ " from the edge leaves extra stock on the edge of the face frame that you'll need if you have to scribe the frame for a tight fit to a wall. For a row of cabinets, it also provides $\frac{1}{2}$ " of "fudge" room with each cabinet for fitting them in place.

Attach a $\frac{3}{4}$ "-thick auxiliary face to the tablesaw rip fence. Raise the blade $\frac{3}{8}$ " into the outside edge of the auxiliary fence, then reposition the fence, lower the blade, and cut a rabbet in the front edge of the sides (M) [Drawing 8, Photo N]. Slide the fence over to expose $\frac{1}{4}$ " of the blade, and rabbet the inside back edges of the sides to accept the back (O).

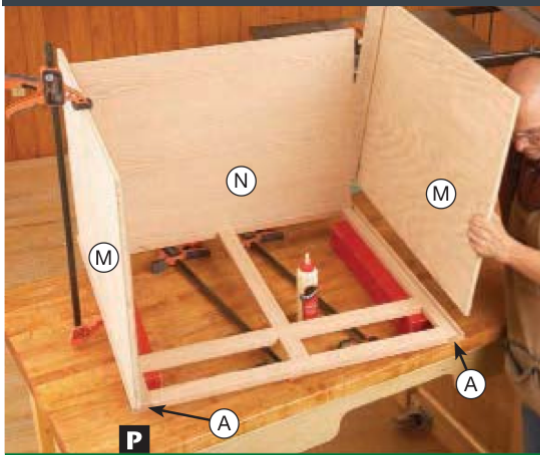
Without changing the blade height, add chippers so the dado set matches the thickness of the bottom (N). (See **More Resources** for a free video to help with this.)

The top face of the bottom (N) aligns with the top edge of the lower rail (C). Transfer this location to the sides (M)

[Photo O] and cut the dado for the bottom in both sides.

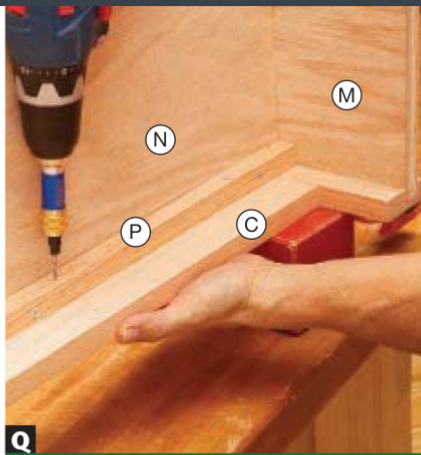
Adams' Insight: Leaving the blade at the same height when cutting the rabbets that accept the back and the dados that accept the bottom makes the length of the bottom and the width of the back identical.

Measure between the grooves in the face-frame stiles (A) to find the *length* of the bottom (N) and the *width* of the back (O). Measure between the rabbets in a side (M) to determine the bottom's width. The back's length equals the distance from the top of a side to the dado's



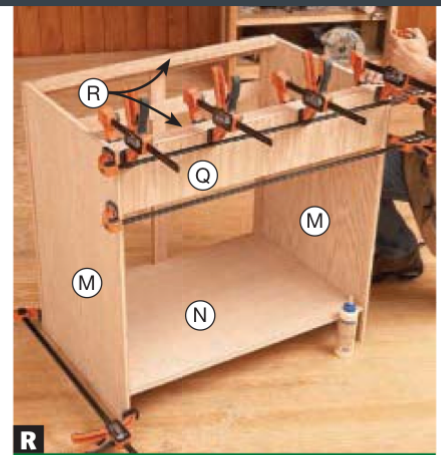
START WITH A SIDE

Glue a side (M) into a face-frame stile (A), with their tops and bottoms flush. Add the bottom (N), then the remaining side.



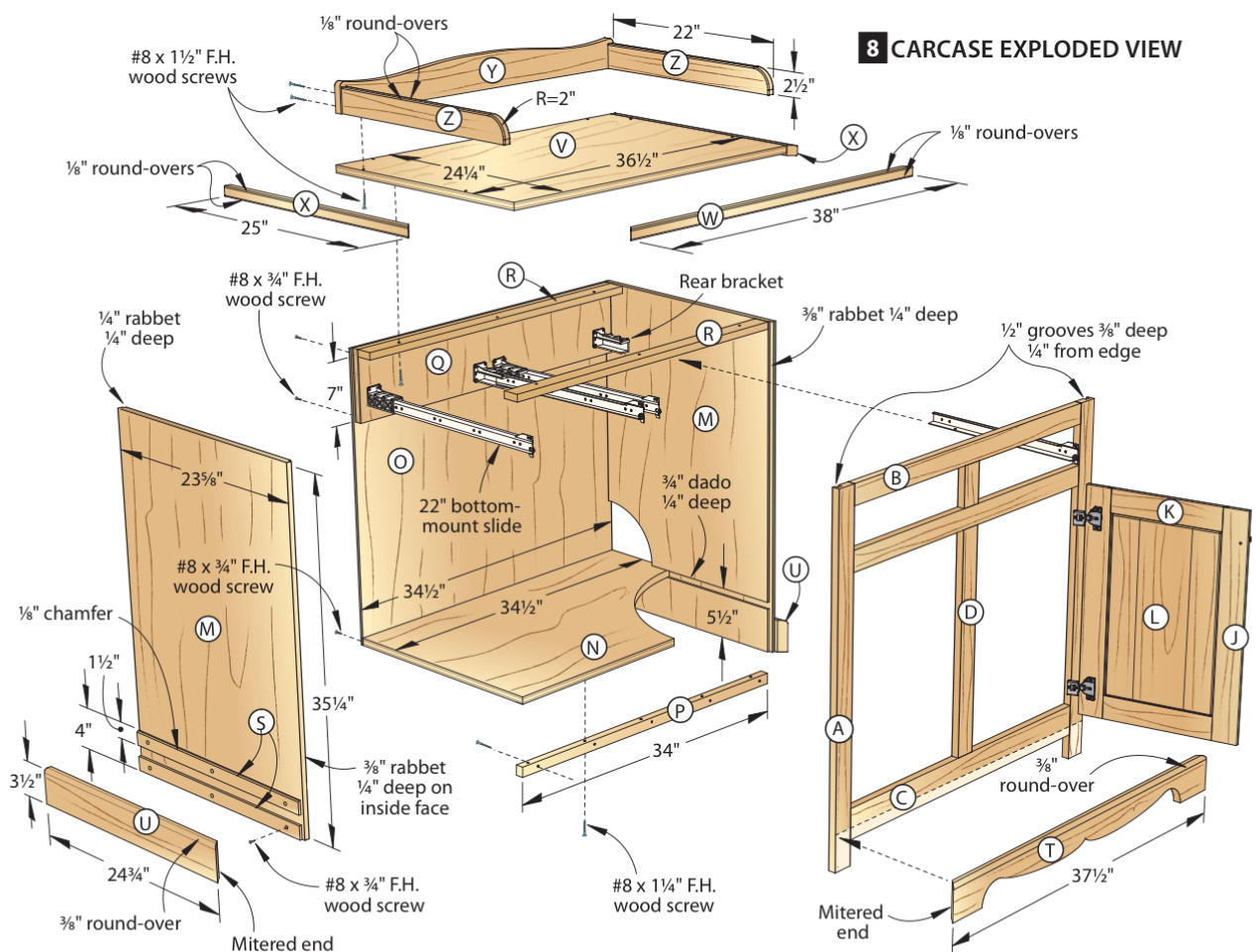
POSITION THE BOTTOM CLEAT

Position the bottom (N) flush with the top of the lower rail (C). Screw the bottom cleat (P) to the lower rail and bottom.



INSTALL THE CLEATS

Glue a top cleat (R) to the top rail (B). Glue the back cleat (Q) to the rear top cleat (R) and sides (M), flush with the rabbets.



8 CARCASE EXPLODED VIEW

bottom edge. After determining these dimensions, cut the pieces to size.

Adams' Insight: Making the back flush with the bottom prevents it from hanging up on a high spot on the floor, and, if you're making several cabinets, also allows for three backs instead of two to be cut from a single sheet of plywood.

Note: If you plan to brush on a finish, apply it to the inside faces of the sides (M), bottom (N), and back (O) now.

(For a topcoat, we applied three coats of wipe-on polyurethane, buffing lightly with 320-grit sandpaper between coats.)

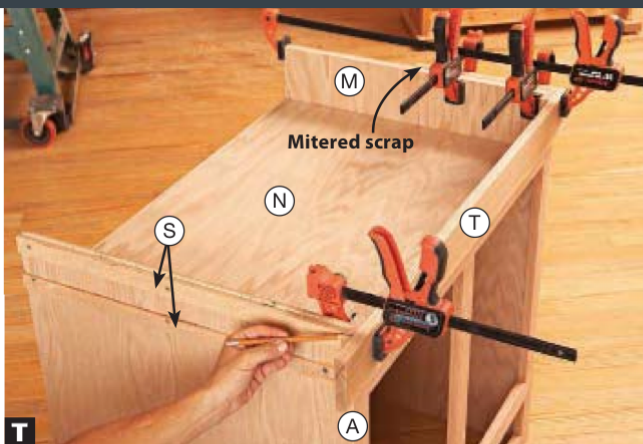
Adams' Insight: Applying only clear finish to the interior leaves it lighter, making it easier to see inside.

Begin assembly of the carcass as shown in **Photo P**. Screw the bottom cleat (P) in place next **[Photo Q]**. Cut the back cleat (Q) and top cleats (R) to fit between the sides (M) **[Drawing 8]**. Drill countersunk shank holes in the top cleats and glue them in place with the countersinks on the bottom face **[Photo R]**. Glue in the back cleat, then glue and screw the back (O) in place.



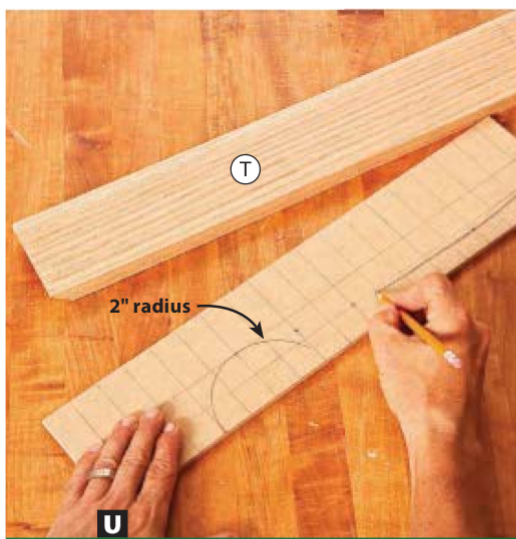
S INSTALL THE FILLERS

Glue and screw the chamfered fillers (S) 4" from the bottom, and the unchamfered fillers flush with the bottoms of the sides (M).



T MARK THE BASE FRONT'S LENGTH

Create a tight joint with the mitered scrap and base front (T), then mark the length of the base front at the face-frame stile (A).



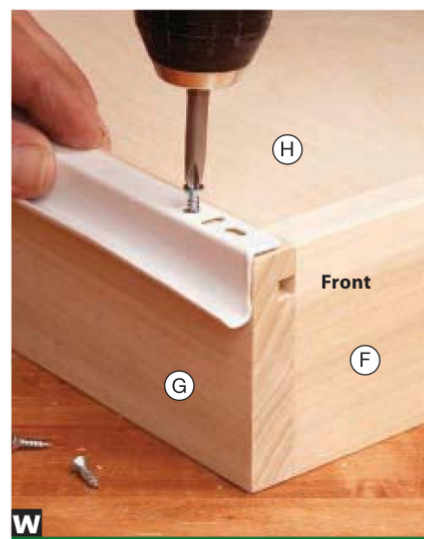
U LAY OUT THE PROFILE TEMPLATE

Lay out the 2" radius and several points in the arc. Connect the dots and radius with a sweeping line. Cut and sand to the line.



V LAY OUT THE BASE PROFILE

Draw a centerline on the base front (T). Trace around the template on one side, then flip the template and draw the other half.



W INSTALL THE DRAWER SLIDES

Mount the drawer half of the slides on the bottom edge of each side (G), flush with the front of the drawer.

TRIM IT UP AND APPLY A FINISH

Plane stock for the fillers (S) to fit the gap between the edge of the face-frame stiles (A) and the sides (M). Rip the fillers to width [Drawing 8] and crosscut them to fit between the rear face of the stile and the rear edge of the sides. To dress up the visible edge, rout a $\frac{1}{8}$ " chamfer on two of the fillers, then glue and screw the fillers in place [Photo S].

Cut the base front (T) 2" longer than the cabinet's width, and the base sides (U) 2" longer than the cabinet's depth, and rout $\frac{3}{8}$ " round-overs along the top edges [Drawing 8]. Miter one end of each piece and a $\frac{3}{4} \times 3\frac{1}{2} \times 12$ " piece of scrap. Clamp the base front and the scrap to the cabinet and mark the opposite end of the base front [Photo T].

Miter-cut the base front (T) to length, then clamp the base pieces around the

cabinet. Mark the length of the base sides (U), and crosscut them. On a piece of $\frac{1}{4}$ " hardboard, lay out a 1" grid and transfer the **Base Front Pattern** to it [Drawing 9, Photo U].

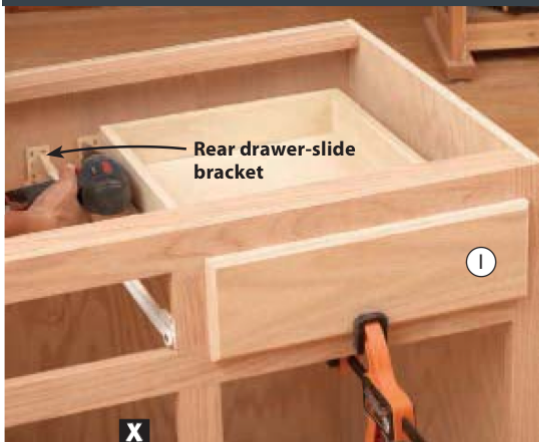
Adams' Insight: Don't worry about matching the exact shape of the pattern; instead, work for a smooth, flowing line close to what's shown.

Cut and sand the template to shape, then use it to lay out the profile on the base front (T) [Photo V]. Cut and sand the profile, then glue the base pieces around the carcass.

Screw the drawer half of the slides to the drawers [Photo W], then mount the cabinet portion of the slides to the face frame only.

With the drawer faces (I) facedown on your bench, position the drawer boxes (F/G/H) on the faces $\frac{3}{4}$ " from the bottom edge and centered side-to-side. Drive screws from inside the drawer to secure the faces. Clamp a drawer in place [Photo X], position the drawer-slide rear brackets and tack them in place. Test the drawer operation, then drive the bracket screws. Repeat this for the remaining drawer. Install the hinges in the doors [Photo Y], then hang the doors [Photo Z].

Cut the top (V) to size from $\frac{3}{4}$ " plywood [Drawing 8]. Cut the front trim (W) and side trim (X) to width and 2" overlength, and rout $\frac{1}{8}$ " round-overs on the top and bottom edges. Miter the trim to fit around the top using the same technique as used with the base trim. Then, glue the trim in place, keeping the



X INSTALL THE REAR BRACKET

Use a drawer to find the rear-bracket location. The slotted bracket holes allow for minor adjustments side-to-side and up and down.



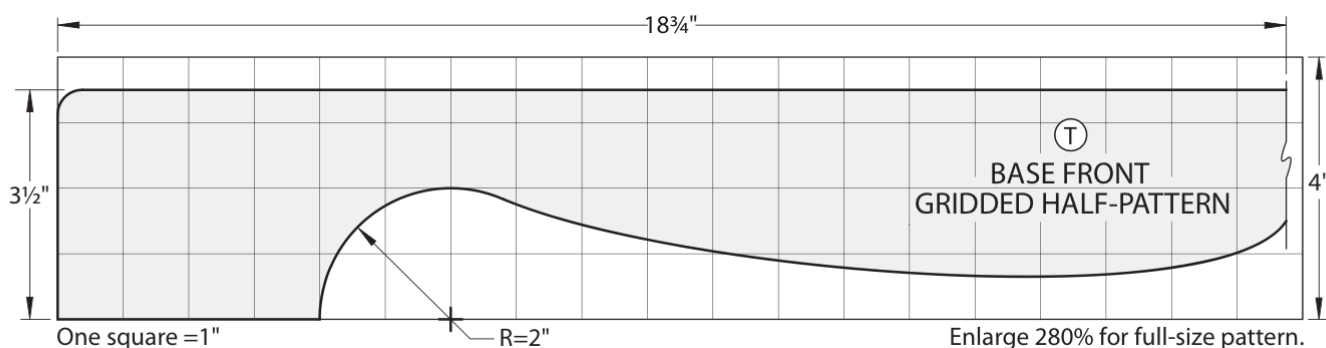
Y MOUNT THE HINGES AND DOORS

Use a square to align the hinges as you drive the screws, *left*. Set the cabinet on its back and place a 1"-wide spacer below the drawer face (I), *right*. Install the door so when closed, it rests against the spacer. Use the hinge-adjustment screws for fine-tuning the door position.

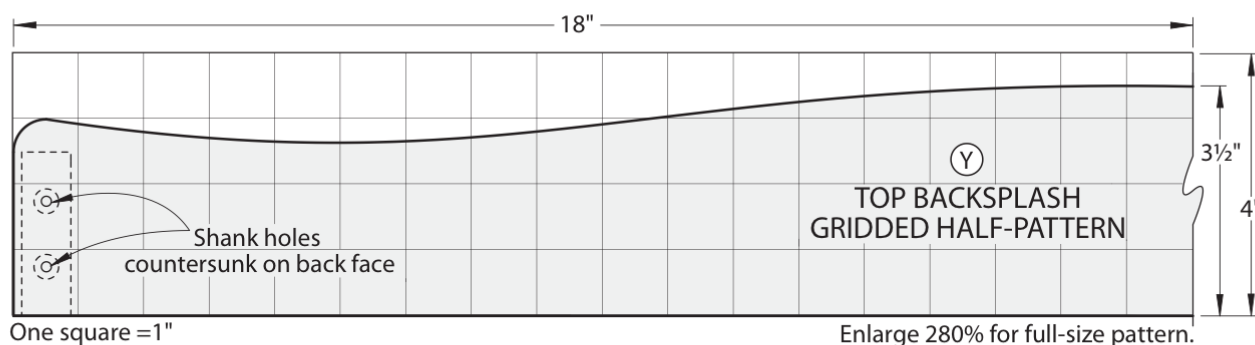


Z

9 BASE PATTERN



10 BACKSPLASH PATTERN



top faces flush. Finish-sand the top (V/W/X) to 220 grit after the glue dries.

As with the base, create a template [Drawing 10] for the backsplash (Y). Cut the backsplash and splash sides (Z) to size and shape [Drawing 8]. Round over the top edges and rounded front ends of the splash sides, then sand the splash sides and backsplash to 220 grit. Screw the backsplash to the top (V/W/X), flush at the rear and centered side-to-side. Then screw the splash sides to the top and backsplashes.

MORE RESOURCES

FREE VIDEOS

- Learn our two-cut method for perfect-fitting dados on the tablesaw at: woodmagazine.com/deadondado.
- Handle sheet goods the easy way with tips at: woodmagazine.com/sheetgoods.
- Break down sheet goods easily and accurately with a circular saw or router: woodmagazine.com/straightedge.

RELATED VIDEOS

- Download Marc Adams' video "Cabinetmaking" and his other video titles by searching "Marc" at: woodmagazine.com/betterwoodworking. \$

\$ = Download these videos for a fee.

Materials List

Part	FINISHED SIZE			Matl.	Qty.
	T	W	L		
Face frame					
A	stiles	¾"	2"	35¼"	O 2
B	upper rails	¾"	2"	32"	O 2
C	lower rail	¾"	3"	32"	O 1
D	door divider	¾"	2"	21¾"	O 1
E	drawer divider	¾"	2"	4"	O 1
Drawers					
F	fronts/back	⅝"	3"	13¼"	P 4
G	sides	⅝"	3"	21"	P 4
H	bottoms	¼"	13⅜"	20⅜"	BP 2
I	faces	¾"	5"	16"	O 2
Doors					
J	stiles	¾"	2½"	22¾"	O 4
K	rails	¾"	2½"	11¾"	O 4
L*	panels	¾"	11½"	18¼"	EO 2
Carcase					
M	sides	¾"	23⅝"	35¼"	OP 2
N	bottom	¾"	23"	34½"	OP 1
O	back	¼"	34½"	30½"	OP 1
P	bottom cleat	¾"	¾"	34"	O 1
Q	back cleat	¾"	34"	7"	OP 1
R	top cleats	¾"	1¾"	34"	O 2
Base and top					
S	fillers	¼"	1½"	23¼"	O 4
T*	base front	¾"	3½"	37½"	O 1
U*	base sides	¾"	3½"	24¾"	O 2
V	top	¾"	24¼"	36½"	OP 1
W*	front trim	¾"	¾"	38"	O 1
X*	side trim	¾"	¾"	25"	O 2
Y	backsplash	¾"	3½"	36"	O 1
Z	splash sides	¾"	2½"	22"	O 2

*Parts initially cut oversize. See the instructions.

Materials key: O—oak; P—poplar; BP—birch plywood; EO—edge-glued oak; OP—oak plywood.

Supplies: ⅜" dowels (20); #8×¾", #8×1¼", #8×1½", #8×2½" flathead wood screws; 22" bottom-mount epoxy-coated roller slides (2 pr.); ½" overlay 35mm European hinges (4); ½" rubber bumpers (8); door knobs (2); drawer knobs (2).

Blade and bits: Stack dado blade; cope-and-stick, raised-panel, 45° chamfer, ⅛" round-over, ⅜" round-over router bits; ⅜" drill bit; 1⅝" Forstner bit.

Source

Rubber panel spacers: Space balls no. 142284, \$5.99 [pack of 100], Woodcraft, 800-225-1153, woodcraft.com.

Toggle clamp: 2⅜×4" vertical toggle clamp no. 143934, \$11.99, Woodcraft.

Cutting Diagram



¾ x 7¼ x 96" Oak (5.3 bd. ft.) *Plane or resaw to thicknesses listed in the Materials List.



¾ x 7¼ x 72" Poplar (4 bd. ft.)



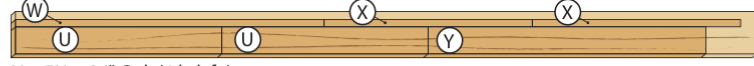
¾ x 5½ x 96" Oak (4 bd. ft.) (2 needed)



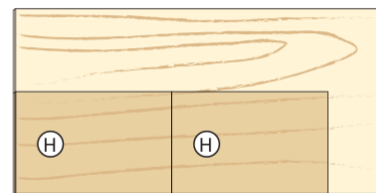
¾ x 5½ x 72" Oak (3 bd. ft.)



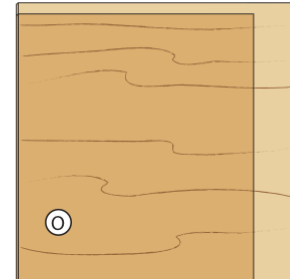
¾ x 5½ x 60" Oak (2.5 bd. ft.)



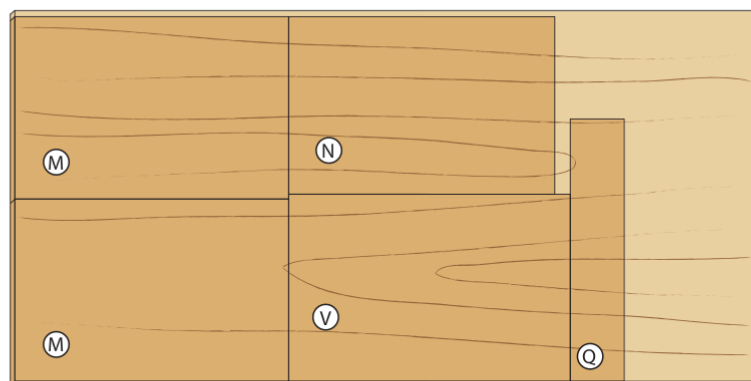
¾ x 5½ x 96" Oak (4 bd. ft.)



¼ x 24 x 48" Birch plywood



¼ x 36 x 36" Oak plywood



¾ x 48 x 96" Oak plywood

Center the top (V–Z) side-to-side on the carcass and flush at the back. Drive #8×1¼" flathead wood screws through the top cleats (R) into the top.

Install the drawer knobs, centering them on the drawer faces. Position each

door knob so its top edge aligns with the bottom of the top door rail (K).

Remove the hardware and the splash (Y, Z) and apply a stain (if desired) to the outside surfaces, and a topcoat to all surfaces. 🌳

Produced by **Craig Ruegsegger** with **Marc Adams** and **Jeff Mertz**
Project design: **Marc Adams; Jeff Mertz**
Illustrations: **Roxanne LeMoine; Lorna Johnson**