

## Project

### THE MORE THINGS CHANGE

#### *This authentic cherry dry sink can serve a dual purpose*

About the same time as my furniture-making hobby started getting serious, my wife and I found out we were going to be parents. Much joy, much panic. The usual discussions ensued—we needed all the stuff associated with the care, maintenance and entertainment of a baby.

We quickly realized we had nothing. More panic, not so much joy. Calls to family and friends secured everything we thought we'd require. Everything that is, except a change table.

I remembered seeing a picture in a magazine of an antique dry sink being used as a change table and thought: what a great idea! Building a dry sink to do double-duty as a change table makes good sense. The dimensions, storage space and recessed top are perfectly suited to handling baby's, uh, needs. And long after the last diaper changes are forgotten, the project remains as a beautiful and practical heirloom.



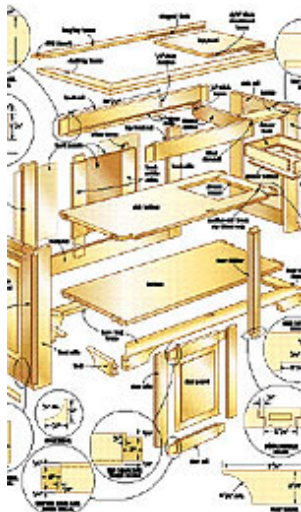
#### The Design

My research into old dry sinks quickly yielded a list of good and bad design features—and defined how my dry sink would look. It would be a piece of fine furniture, not the usual rustic slapped-together variety. It would be fairly decorative: raised panel construction for the doors and sides; a wide lip around the top edge; and beading on the outside corners—to soften the look. And it would feature bracketed feet, a single, simple drawer and really wide face frames, like something you'd see on an old Waterloo county cupboard.

#### Getting Started

Like many of my projects, this one starts with rough-sawn cherry. Whether you dress it yourself, or have the lumberyard do it, plane all the boards to 7/8" thick. Sticker and stack the boards for a few weeks to acclimatize the wood, then lay out the pieces for the project, paying close

attention to grain orientation. Make sure the grain and colour of the wood for the panels matches that of the frames. When choosing the pieces for the outside corners, match the grain and colour there too. The goal is to ensure a seamless look in the final project. When all the pieces are laid out, cut the rails, stiles, and panel boards for the main case and doors. The back of the dry sink is also built with frame and panels. Not only does this contribute to the heirloom quality of this project, but it also lets you hone your skills on three less conspicuous panels before diving in to the four that are more visible. When all the pieces are cut, glue up the seven panel blanks. Before gluing, true the edges using a Stanley No. 8 jointer plane or a powered jointer.



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## THE MORE THINGS CHANGE

(part 2)

By KONRAD SAUER

Photo by DAVE STARRETT

Illustration by LEN CHURCHILL

### YOU WILL NEED

For the Main Case	Size	Qty.
Front stiles	7/8" x 3 1/8" x 30"	2
Back stiles	7/8" x 4 1/4" x 30"	2
Back middle stiles	7/8" x 4 1/4" x 22 1/2"	2
Front side stiles	7/8" x 4" x 30"	2
Back side stiles	7/8" x 3 1/8" x 30"	2
Top front rail	7/8" x 4 1/2" x 30 1/2"	1
Back rails	7/8" x 4 1/2" x 43 1/4"	2
Side rails	7/8" x 5 5/8" x 16 1/4"	4
Back panels	7/8" x 11" x 19 1/4"	3
Side panels	7/8" x 13 1/4" x 19 1/4"	2
Sink bottom	7/8" x 19 7/8" x 47"	1
Bottom--antique pine	3/4" x 18 3/4" x 47 3/4"	1
Drawer divider	7/8" x 3 3/4" x 19 7/8"	1
Drawer runner	7/8" x 3 1/2" x 12 7/8"	1
Bridge	7/8" x 3 1/2" x 15 5/8"	1
Shelf--antique pine	3/4" x 18 1/2" x 45 3/4"	1
Shelf cleats	3/4" x 1 1/2" x 18 1/2"	2
<b>For the Top</b>		
Long frame	7/8" x 2 1/4" x 50 1/4"	2
Short frame	7/8" x 2 1/4" x 23"	2
Top panel	7/8" x 15 1/4" x 19 1/2"	1
<b>For the Doors</b>		
Stiles	7/8" x 3 1/4" x 23 3/4"	4
Rails	7/8" x 3 1/4" x 16 1/4"	4
Panels	7/8" x 13" x 18"	2
Divider	7/8" x 2 1/2" x 25 1/4"	1
<b>For the Base</b>		
Foot blanks	1 1/4" x 2 1/2" x 7 1/2"	8
Long frame	7/8" x 3 1/4" x 23 3/8"	2

<b>Short frame</b>	<b>3/4" x 18 3/4" x 47 3/4"</b>	<b>1</b>
<b>Front and back cove strips</b>	<b>7/8" X 7/8" X 49 1/2"</b>	<b>2</b>
<b>Side cove strips</b>	<b>7/8" x 7/8" x 22 1/4"</b>	<b>4</b>

### **For the Drawer**

<b>Drawer face</b>	<b>5/8" x 3 3/4" x 18 3/4"</b>	<b>2</b>
<b>Drawer sides</b>	<b>3/4" x 18 3/4" x 47 3/4"</b>	<b>1</b>
<b>Drawer bottom</b>	<b>3/4" x 10 1/8" x 18 1/4"</b>	<b>1</b>

### **Hardware**

<b>Hinges--solid brass</b>	<b>3/4" x 2"</b>	<b>4</b>
<b>Knobs</b>	<b>1 1/4" dia. Classique Hardware #MWK-S100.12C</b>	<b>3</b>

All parts cherry unless otherwise indicated

## THE MORE THINGS CHANGE

(part 3)

By **KONRAD SAUER**

Photo by **DAVE STARRETT**

Illustration by **LEN CHURCHILL**



A roundover on the base frame transitions to a cove detail of the same proportions and is echoed again in the corner bead detail

THE FLUSH-faced drawer runs smoothly without mechanical fasteners. Blind dovetails join the drawer sides to the face

While the panel blanks are drying, mill the 1/4" dadoes in the edge of the rails and stiles to house the panels. A table-mounted router or tablesaw equipped with a narrow dado blade are the best options for this operation. Regardless of the tool you choose, make sure the grooves are perfectly centred.

### Mortises and Tenons

Lay out and cut all the mortises first. There's lots, so a dedicated mortising machine or a drill press fitted with a mortising attachment makes sense. When all the mortises are complete, clean them up with a sharp chisel. Now layout the tenons using one of the mortises as a template. Make the shoulder cuts for the the tenons first, then the cheek cuts. Use a tablesaw fitted with a tenoning jig, or make multiple passes over a dado blade and remove the waste with a chisel. Once all the tenons are cut, dry fit the frames.

### The Raised Panels

After the glued-up panel blanks are dry, remove any hardened squeeze-out with a chisel. Dress the panel blanks using a smoothing plane or well-tuned scraper. Square the panels to their final dimensions and mark the profile of the raised panel on the edges. The width of the raised edge is 1 1/4"—too wide for a router and panel-raising bit to

handle. I raised all of the panels by hand, using a Stanley No. 78 plane with both fences installed to define the shoulders. Plane the end grain edges first, followed by the long grain edges. That way any end grain tearout will be removed when the edges parallel to the grain are planed. If raising panels with a table-mounted router is your preference, consider reducing the width of the profile and using a vertical panel-raising bit. Dry fit the frames and panels that make up the sides and back. Completed panels should float freely in their frames without being sloppy.

### **The Cabinet Corners**

The front and back stiles are attached to side stiles to create the corners of the cabinet. These joints will be edge glued together with biscuits for strength and alignment. Before the corners come together mill a roundover on the stiles using a router, a hand plane or a dedicated moulding plane. The roundover is 3/4" dia. quarter-round cut 1/8" deep, and is stopped before reaching each end of the stile. Cut the biscuit slots before milling the roundover so that the biscuit joiner's fence will have a square surface to register on. Dry fit the sides and back together but don't glue anything yet.

### **The Bottom**

I used antique pine for the bottom because it was cheaper than cherry (a detail which isn't out of place in antique dry sinks for the same reason). The bottom is attached to the sides with through dovetails where it meets the end rails. This dovetailed joint will be hidden by the applied cove moulding later on. Cut the tails first on the ends of the bottom and use them to mark the pins on the bottom of the sides. Use a dovetail saw, a coping saw and a series of chisels to make all the dovetails.

### **The Sink Bottom**

The sink bottom has tenons on the ends which fit into the side stiles and a rabbet on the back edge which fits into a dado in the rear rail. Square up and dress the blank for the sink bottom. Make the end joints by cutting the mortises in the side stiles first and then use them to mark the tenons on the end of the sink bottom. Use a dovetail saw, a coping saw and chisels to complete these tenons. Cut the rabbet in the back edge of the sink bottom and assemble the sides, bottom panel and sink bottom together. Position the back in place and mark the position of the dado on the rear rail that corresponds to the rabbet on the back edge of the sink bottom. Cut this dado and dry fit all the case components you've built so far. With the case fitted together, mark the notches that allow the face of the front stiles to fit flush with the in the front edge of the sink bottom. Cut these notches with a dovetail saw.

## THE MORE THINGS CHANGE

(part 4)

By KONRAD SAUER

Photo by DAVE STARRETT

Illustration by LEN CHURCHILL



Konrad Sauer thicknesses rough-sawn stock by hand. Here he uses a Stanley No. 604 smoothing plane with the mouth wide open and the blade set to take a big bite

Once the drawer sides, face and back are assembled, the raised panel bottom is slid into place. No glue is used here to allow for seasonal movement without cracking

The recessed sink area and the drawer case are divided by the drawer divider. Cut a tenon on the back edge of the drawer divider and a corresponding mortise in the rear rail—the mortise-and-tenon in the back assembly is offset to allow room for this mortise. Cut a blind dovetail where the drawer divider meets the top front rail. Two final components complete the drawer case: the bridge and the drawer runner. Cut the dovetails which join the bridge to the drawer divider and side, then make the notch which accepts the front stile. Cut tenons on the ends of the drawer runner and fit them into mortises cut in the sink bottom. At this point, dry fit everything you've built so far.

### The Base

The main case sits on top of the base frame which in turn is supported by the feet. The joint where the case meets the base frame will be hidden later with the addition of shop-milled cove moulding. Round over the outside edges of the base frame members first then assemble the frame using mitred corners reinforced with biscuits. To make the feet, enlarge the detail from the plan and transfer it onto both sides of each foot blank. I cut the feet by hand with a coping saw but you have access to a bandsaw I suggest using it—you'll preserve your sanity. Once cut, shape and smooth the feet with sandpaper that's been glued to a length of 4"

dia. ABS pipe. Join the contoured foot sides together with through dovetails. Cutting these is quite a challenge since the material is so thick. Once they are assembled, attach the feet to the base frame with glue and biscuits. Set the main case assembly on the base assembly.

## **The Doors**

With the main case assembled, the doors and door divider can be put together and fitted. The frame-and-panel doors are built the same way as the sides and back of the main case. The only tricky part of building the doors is fitting the French-style rabbeted overlap where the doors meet the door divider. Start the door divider by rabbeting the edges that will accept the doors. Now cut the decorative bead on each edge. Finally, chamfer the edges of the door divider to allow the doors to swing freely. The hinge edge of each door also gets a bead detail. This bead balances the one on the door divider but more importantly hides the barrel hinges. The hinges you use dictate the diameter of the bead. Mortise the hinges using a sharp chisel and attach them using brass screws. Drive steel screws of the same size to make pilot holes, then install the softer brass screws.



# Project

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(part 5)

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Illustration by LEN CHURCHILL

The top of the dry sink consists of a small panel surrounded by a frame. Make the top frame as you did the bottom frame and add the stopped dado on the inside edge. Mill tenons on three hidden edges of the top panel to fit into these dados. Assemble the top now.

### The Drawer

The drawer is standard construction. Blind dovetail the sides into the back and face, and slide the raised panel bottom into its dado before final assembly.

### Time for Glue

Begin the final assembly by bringing the case sides together with the bottom panel, sink bottom and door divider. Next attach the case back. Now assemble the front rails and stiles, fitting the drawer divider and bridge as you go. Attach the completed main case to the base with screws. Only two screws are needed, one at each end, driven up from the bottom, through the base frame into the bottom panel of the main case. Attach the top to the



main case with glue and biscuits for alignment. Apply the glue only to the middle third of the top edge of the sides to allow for seasonal movement. The final construction step is applying the cove moulding trim. This moulding hides the joints between the base and the main case and between the main case and the top. Mitre the cove to fit then attach it with glue and brads to the base and top only. Not attaching the cove to the sides allows for seasonal movement. Install the door and drawer knobs now.

### The Secret Finish

This is my standard finish for cherry, and imparts that rich dark colour. Let the dry sink tan outside for a day before adding the finish. With cherry, one day in the sunshine is equal to about five years of indoor aging. Just be sure that nothing is placed on it and to turn it regularly so it gets even exposure. As strange as it sounds, be on the lookout for birds flying overhead. They can ruin a piece quickly. After its tanning session, complete the finishing by applying three coats of tung oil followed by a coat of paste wax.

