

# SHOPSMITH SHAVINGS

Formerly known as SHOPSMITH SHOP NOTES



## Looking ahead

In this issue of **SHAVINGS**, for the first time, we are devoting a substantial amount of space to a project. We hope you like the idea but we want to be sure. Do you want more projects? Would you like to have it become a bigger publication and be issued more frequently? ... even if it should be necessary to make a small annual subscription charge to cover increased costs? **SHOPSMITH SHAVINGS** is your publication so please send us a letter or post card and let us know what you want in future issues. And don't forget that we want your contributions for publication, too. We will pay \$5.00 for every item used.

## Build yourself a sliding saw table

We all know that a precision joint, whether square or mitered, requires as accurate a cut as it is possible to get. Your miter gauge and saw blade work well together to obtain this accuracy, but slight operational errors, and a tendency on the part of the work to slide or be drawn off-angle by the pull of the blade, sometimes result in unsatisfactory work for the discriminating craftsman. To make accuracy almost automatic, therefore, we offer this plan for a sliding saw table. It has been designed especially to fit SHOPSMITH but the basic idea can easily be adapted for use on any other table saw.

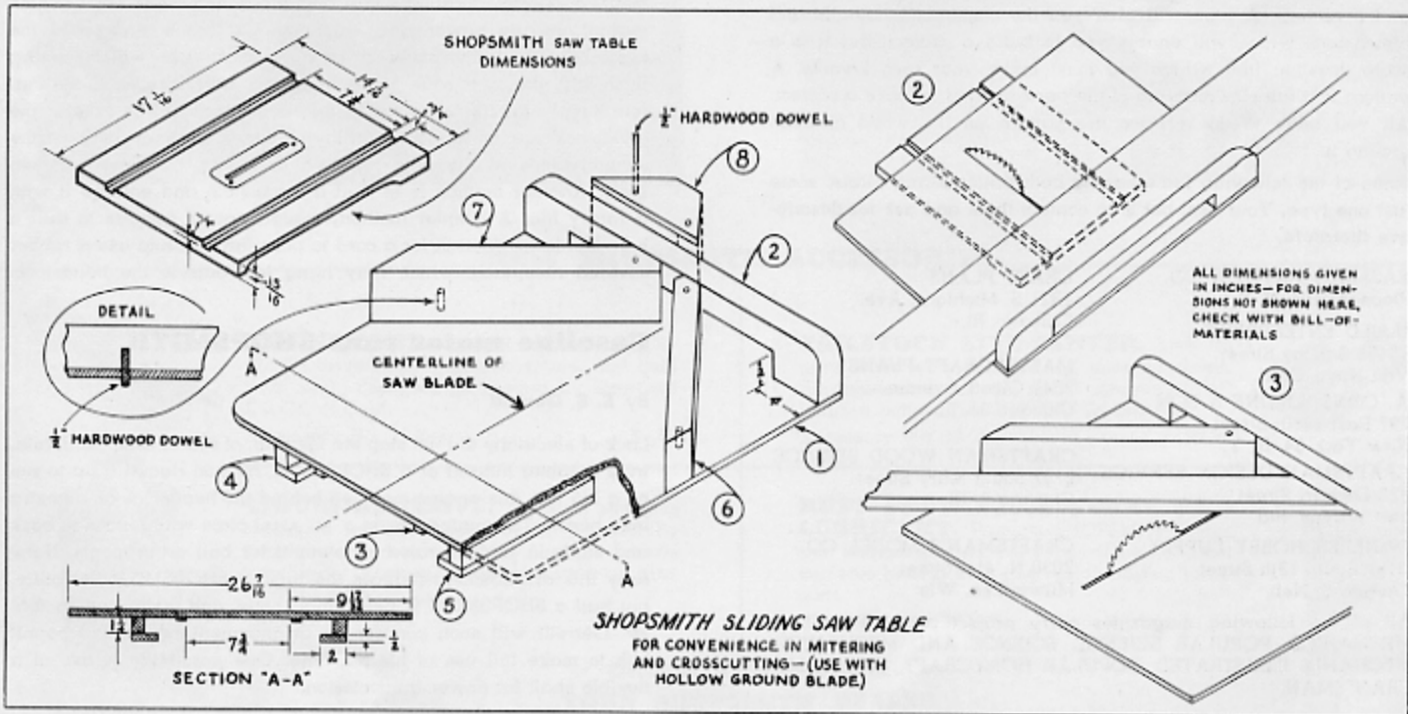
Construction is simple if you follow the instructions step by step. The few dollars in materials needed are well spent when you consider the increase in the quality of your workshop's projects and the satisfaction in knowing that that 45 degree angle is going to be exactly where you want it.

## How to build it

1. Cut part #1 to size.
2. Cut part #2 to size and attach to part #1.
3. Cut left and right hand parts #3 to size. Locate position of left hand part #3 and fasten in place. Place on SHOPSMITH saw table with left hand part #3 in miter slot and mark off location of right hand part #3. Fasten right hand part #3 in place.
4. Raise saw table to clear blade. Put sliding table in place and clamp to saw table. Turn on motor and let saw blade cut its own slot by lowering table. When blade protrudes about 1/2" remove clamps and elongate slot.
5. Cut parts #4 and #5 to size. Locate positions and fasten in place (it is best to locate position of these pieces right on the table instead of depending on hand measurement). These pieces are not dimensioned to grip the table. Their purpose is to hold the sliding table to the saw table when heavy stock is being cut and the weight is in front of the table edge.
6. Cut part #8 to size and fasten to fence. Nails may be used here.
7. Cut parts #6 and #7 to size and clamp in position at a 45 degree angle to the saw slot.
8. Use SHOPSMITH in vertical drill press position to drill 1/2" dowel holes, 2" deep, as follows: two through part #8 into parts #6 and #7, and two through part #1 into parts #6 and #7.
9. Cut four dowel pins, 3" long. Two pins should be glued into the holes in parts #6 and #7 which match the holes in part #1. The two pins which fit through part #8 are not glued, however, because they must be removed whenever the miter guides are removed.

## Notes:

1. Miter guides are removed when the sliding table is used for crosscutting (see Fig. 2).
2. Miter cuts in the middle of long pieces may be accomplished be-



## Notes (continued):

- cause the stock slides through the undercut section of the fence (see Fig. 3). To position either of the miter guides, first place guide in position by putting dowel pin in place through table, then swing guide back under part #8 and slip other dowel pin in place. When mitering the ends of stock that have been squared, it is desirable to have both guides in place.
- It is important to protect your sliding table against dampness; warping can destroy its accuracy. When the project is complete and has been sanded, apply a wash coat of shellac (about half alcohol and half shellac) to all parts. Let dry, then sand lightly and apply a second wash coat. Sand once more and then apply two additional coats of undiluted shellac. Clear lacquer may be used after the first wash coat of shellac if you prefer. Whichever method you use, be sure you protect it against warping.
  - Apply wood glue to all mating edges before wood screws are inserted.

## Bill of Materials

Part No.	No. of Pcs. Required	Size	Material
1	1	½" x 26½" x 29½"	Gum-faced plywood
2	1	2" x 4" x 26½"	Pine
3	2	¼" x ¾" x 29½"	Birch or maple
4	2	1" x 1¼" x 12"	Birch or maple
5	2	½" x 2" x 12"	Birch or maple
6	1	2" x 4" x 24"	Pine
7	1	2" x 4" x 24"	Pine
8	1	½" x 4" x 10"	Plywood

Also: Four #8 fh wood screws, 2" long, for attaching part #1 to part #2; ten #3 fh wood screws, ½" long, for attaching part #3 to part #1; sixteen #5 fh wood screws, 1" long, for attaching part #4 to part #1, and part #5 to part #4; 12" length of ½" birch dowel for pins; glue and finishing materials.

## Patterns and plans

Because we have received so many requests for project plans and patterns, we are listing a few sources for materials of this type. We would like to point out that there is a difference between a plan and a pattern. A plan will give you the construction details and dimensions which will enable you to build a project, but it is a scale drawing from which you must make your own layouts. A pattern is a full size drawing of the parts needed to make a project. All you have to do is trace the pattern on the wood and cut around it.

Some of the following firms handle both patterns and plans, some just one type. Your best bet is to contact them and ask for descriptive literature.

EASI-BILD PATTERN CO.  
Pleasantville, N. Y.

U-BILD ENTERPRISES  
15155 Saticoy Street  
Van Nuys, Calif.

A. CONSTANTINE & SON  
797 East 135th Street  
New York 54, N. Y.

CRAFTSMAN DESIGN SERVICE  
823 Eckhart Street  
Fort Wayne, Ind.

WINKLER HOBBY SUPPLY  
3167 South 13th Street  
Omaha 9, Neb.

CRAFT PLANS  
1321 S. Michigan Ave.  
Chicago, Ill.

MASTERCRAFT PLANS  
7041 Olcott Avenue  
Chicago 31, Ill.

CRAFTSMAN WOOD SERVICE  
2727 South Mary Street  
Chicago 8, Ill.

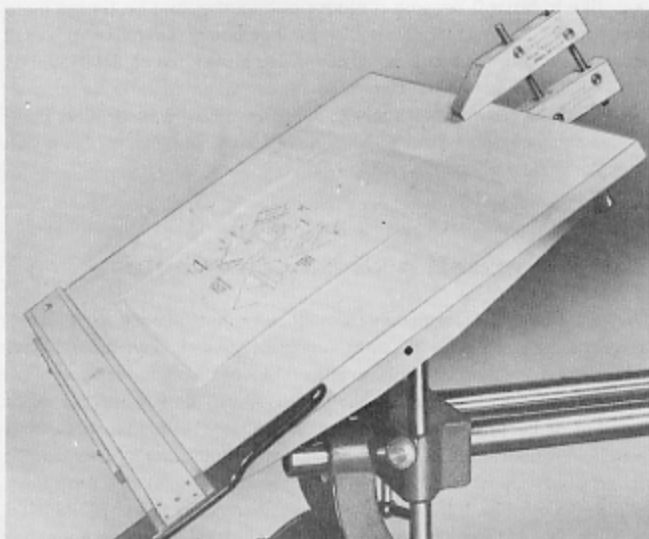
CRAFTSMAN'S MODEL CO.  
2030 N. 41st Street  
Milwaukee, Wis.

All of the following magazines carry project plans: POPULAR MECHANICS, POPULAR SCIENCE, SCIENCE AND MECHANICS, MECHANIX ILLUSTRATED, POPULAR HOMECRAFT, THE HOMECRAFTSMAN.

## Adjustable drafting table

By Milton J. McCole

By sliding the SHOPSMITH table and carriage to the tailstock end of the ways, and clamping a drafting board to it, Mr. McCole figures he has a fine drawing table which can be adjusted to the most convenient angle and height for the person using it. We can't think of a better solution to the problem of having a drawing surface available without sacrificing the space needed for a regular draftsman's table. Remember, too, there is no limit to the size board the table will hold. You can clamp a smooth surfaced plywood panel to the table and make a full-size drawing of just about any project you might care to undertake.



## Adding an electrical outlet

By E. T. Slater

An electric receptacle on the backside of the SHOPSMITH headstock provides a convenient outlet for the SHOPSMITH lamp attachment, or for tool post grinders and other accessory items which require electric power and which should function close to the machine. Mr. Slater used a type of receptacle which mounts flush with the outer wall of the headstock and wired it to the current supply terminals on top of the toggle switch. The hole in the headstock can be made by drilling a series of small holes on the circumference of the hole required and then chiseling between them. Another method is to drill a large hole and enlarge it with a rotary file. A simpler method, though not as neat, is to drill a hole just large enough for a cord to pass through and use a rubber covered receptacle which may hang just outside the headstock.

## Gasoline motor runs SHOPSMITH

By E. S. Gerrelff

Lack of electricity did not stop Mr. Gerrelff, of Placerville, California, from availing himself of a SHOPSMITH. He just rigged it up to run on a 1½ h.p. gas engine mounted behind the headstock on an extra long bench. The engine sits on a ¼" steel plate with hinges in back and studs in front to raise or lower it for belt adjustments. Naturally this arrangement reduces the famous SHOPSMITH flexibility, but half a SHOPSMITH is better than none, and we're betting that Mr. Gerrelff will soon concoct an arrangement which will permit him to make full use of his machine. One possibility is use of a flexible shaft for power transmission.

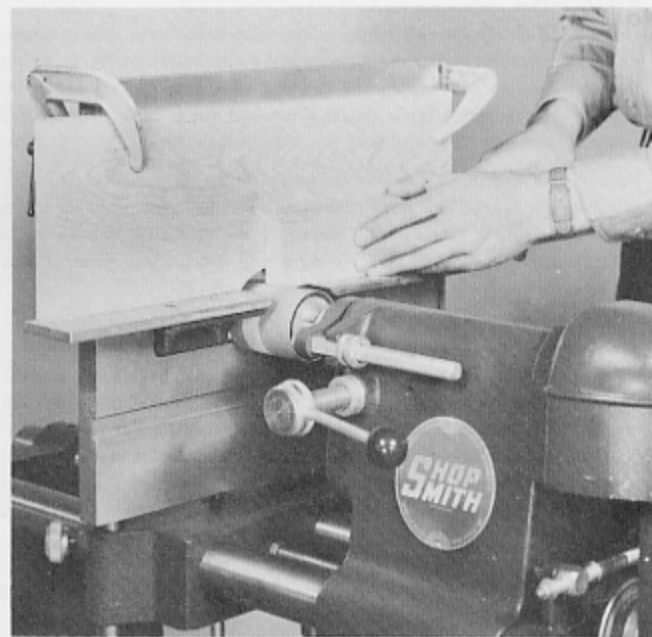
## Ball bearings help to saw long boards

By Arlo R. Gill

When Mr. Gill had a number of long, heavy boards that had to be sawed off near one end, he found that the weight on the extension table was making it hard to push his work past the blade. Noticing the grooves in the surface of the extension table, he "took three small steel ball bearings, dropped the extension table enough to accommodate the bearings and still keep the board flat, and she worked like a top. The corrugations on the table are just the thing to contain the balls." With the balls carrying the weight of the work we can see that very little effort would be required to cut even the heaviest lumber. Marbles or any other small round objects will work just as well.

## Edge sanding with drum sander

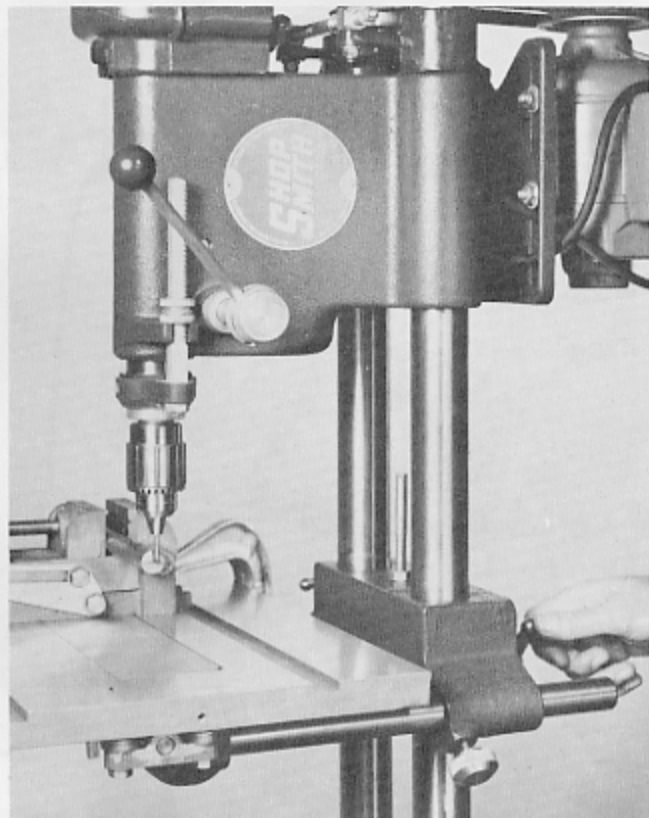
You can use your drum sander and shaper fence to do edge sanding as shown in the photo. Because the drum sander cannot be advanced through the table opening with the shaper fence in place, a board should be clamped to the table as shown. This will eliminate the thin unsanded edge which would otherwise be caused by the gap between the drum sander and the table. The amount of material to be sanded off can be controlled by raising or lowering the table.



## Metal slitting and light milling

By William Debelsky

The SHOPSMITH table-raising mechanism becomes a very accurate forward table feed in the vertical drill press position—something to remember for light milling operations. With an abrasive disc held in an arbor and tightened in the chuck (or router bit chuck), your SHOPSMITH may be used as a metal slitter. Work should be clamped tightly in position on the table and the speed set at about 5,000 to 6,000 rpm. You'll do a "mighty professional job through an eighth-inch of drill steel, leaving a slick finish with no burr." Mr. Debelsky uses hand grinder abrasive discs with excellent results. They can be purchased from most large hardware dealers and are not expensive. We can see a lot of ideas creeping up around this one—slitting saw, such as the small hand grinder type in use in the photo, heavier abrasive discs, and so on. For safety's sake, be sure you check the speeds at which the cutting or grinding tools were designed to run, and feed the metal slowly.



## NEW SHOPSMITH ACCESSORIES



**MAGNA LUBE.** Special grease for SHOPSMITH drive sleeve, spindle spline, and quill rack teeth, designed for Magna by Standard Oil Co. of Calif.

Accessory No. 12 048 . . . . . \$ .50



**LIQUID ADHESIVE.** Pressure sensitive adhesive for Sandpaper Discs. Applied by brush attached to cap. May last for several sandpaper changes. Made for Magna by Armstrong Cork Co.

Accessory No. 12 106 . . . . . \$ .95

**TAILSTOCK LIVE CENTER.** Live tip turns with workpiece. Wood does not burn. Recommended for all metal spinning. Ball bearing action. Fits SHOPSMITH tailstock.

Accessory No. 12 282 . . . . . \$3.25



**RUST PREVENTIVE SPRAY AND LUBRICANT.** Protects SHOPSMITH ways and workshop tools. All exposed iron or steel surfaces benefit from this rust inhibiting lubricant.

Accessory No. 12 049 . . . . . \$1.45

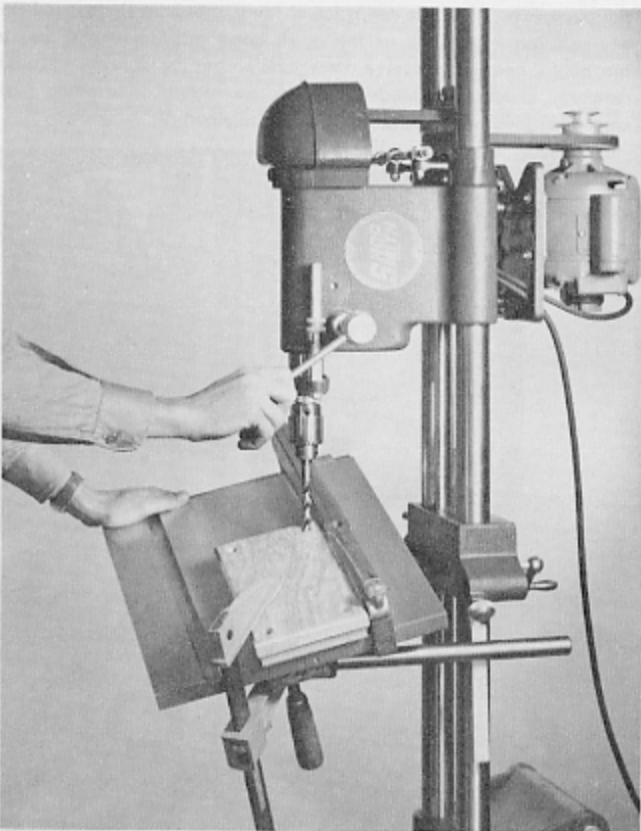


ORDER THEM FROM  
YOUR SHOPSMITH DEALER

## Compound angle drilling

By R. C. Setterland

Although you can drill at all simple angles with the table secured in the carriage in a normal manner, this idea should be remembered for special applications. The table is removed from the carriage and replaced with just one rod in the carriage hole. This enables you to swing the table in an arc. The other table rod rests against the ways or is blocked up to secure a specific angle. The most desirable feature in this set-up is that you can combine the normal tilt of the table with the improvised tilt for compound angle drilling, such as you might need for stool or table legs.



## Tid-bits from the SHOPSMITH WORKSHOP

Ever have trouble cutting a series of perfectly uniform slots on the jigsaw? Try mounting several blades at the same time in the jigsaw chucks. If you know the thickness of the blades (look on the SHOPS-MITH jigsaw blade envelopes), you can control the width of the slot by the number of blades used.

Because SHOPS-MITH so conveniently provides a miter gauge for use with the disc sander, it's easy to point dowels to any angle required. Set miter gauge at angle desired, hold dowel against miter gauge with one hand and use your other hand to turn the dowel as you feed it into the disc. Something to remember whenever you have to shape the ends of dowels.

Very attractive "inlaid" effects may be achieved if you glue different types of wood together for lathe turning. Woods of contrasting colors, such as maple and walnut, should be used.

One of the best safety tips we can offer for use of any power tool is to rotate the tool by hand before turning on the power.

Ever break a hack saw blade while the teeth were still in good condition? It isn't a nice thing to have happen, but you will feel a lot better about it if you know that you can cut them to size and use them in the SHOPS-MITH jigsaw for heavy cutting or as saber saw blades.

Drum sanding on curved edges sometimes requires a table surface perpendicular to the drum. This is easy on SHOPS-MITH in either the vertical or the horizontal position. Place sanding drum on spindle and remove table insert. Then advance drum until it fits in table opening. That's it!

Router bits create quantities of wood chips which pile up and obscure the work. The next time you use this operation, mount a small rectangular piece of stiff paper on the bit. Slit it twice so that a small opening is formed through which the bit will pass. It will act as a fan to help blow away the wood chips.

## Accessory pin-ups

The common clothes pin makes a perfect peg for storage of drill chucks or anything mounted on arbors. Just cut off the slotted portions of the pins and fasten the remaining ends in holes in the tool panel. Heavy items which tend to topple off, such as dado assemblies, can be secured by tightening the Allen screws on the pegs.

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