

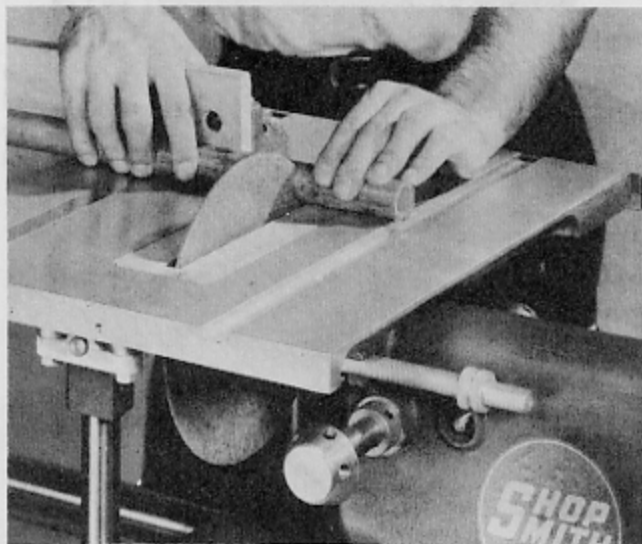
SHOP NOTES

No. 3



MAGNA ENGINEERING CORPORATION

417 MONTGOMERY STREET
SAN FRANCISCO, CALIFORNIA



METAL CUTTING ON SHOPSMITH

Abrasive cut-off wheels have in the past been a fast and efficient way of cutting metals, but unless handled carefully there was an inherent danger of their breaking while turning. Science has now solved this problem by providing a flexible cut-off wheel with a laminated linen base, now available as a SHOPSMITH accessory. Safe even under the most rugged conditions, it speedily cuts steel, aluminum, brass, or copper sheets, tubing, bar stock or castings. It is also excellent for cutting plastics, asbestos, celotex, masonite, transite, or bakelite. It is used in the saw blade position, and is also handy for finish grinding on the edge or side for tools, knives, hoes, axes and picks.

PROTECTING THE WAYS

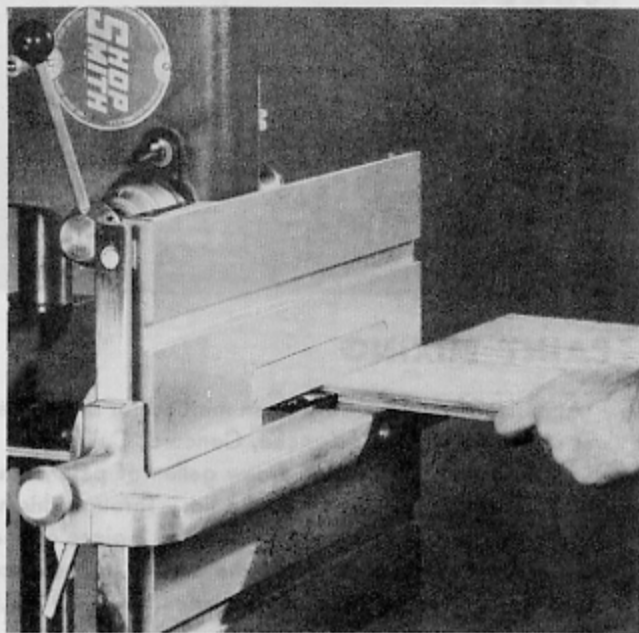
SHOPSMITH is of course very convenient for many grinding operations. The steel and emery particles which result from grinding, however, can damage the tubular ways if they are not carefully removed. An easy way to prevent such particles from falling upon the ways is to spread a small piece of canvas over the ways; easier still, move the headstock and carriage to the right until they are flush with the base plate arm. If the carriage posi-

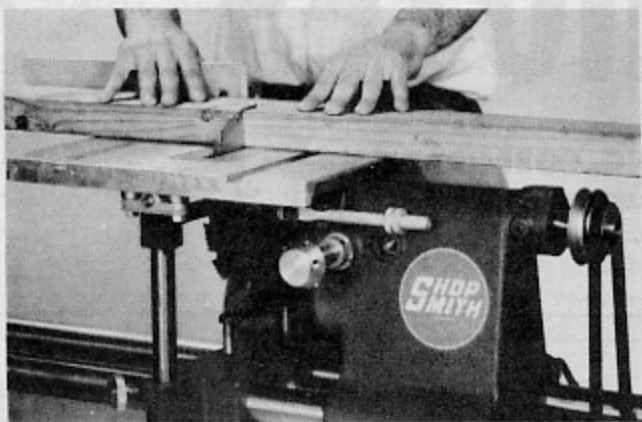
tioning stud is removed, and the quill extended, the grinding wheel will extend beyond the ways and no particles will fall upon them. The tool rest can still be used in this position as a guide or work rest. Submitted by **Robert F. Tucker**, Gary, Indiana.

Harold D. Rosner, Larned, Kansas, suggested an application of floor paste wax on the tubular ways to provide lubrication and protection. This will insure a sliding surface which does not readily accumulate dust and chips. Wax may also be used on the table rods.

SHOPSMITH AS VERTICAL GROOVER

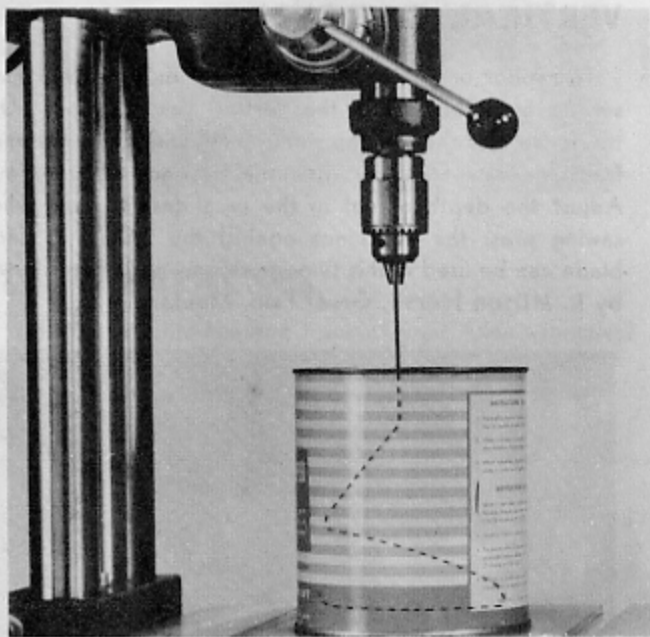
To rabbet or "groove" the edge of bulky work pieces, set up SHOPSMITH in the vertical saw position. Use the fence as a rest for the work piece, and set its distance from the saw blade to give the desired width of cut. Adjust the depth of cut in the usual fashion, and when sawing press the workpiece against the table. A dado blade can be used in this same position. Idea contributed by **L. Milton Hersh**, Great Falls, Montana.





CROSS-CUTTING THICK LUMBER

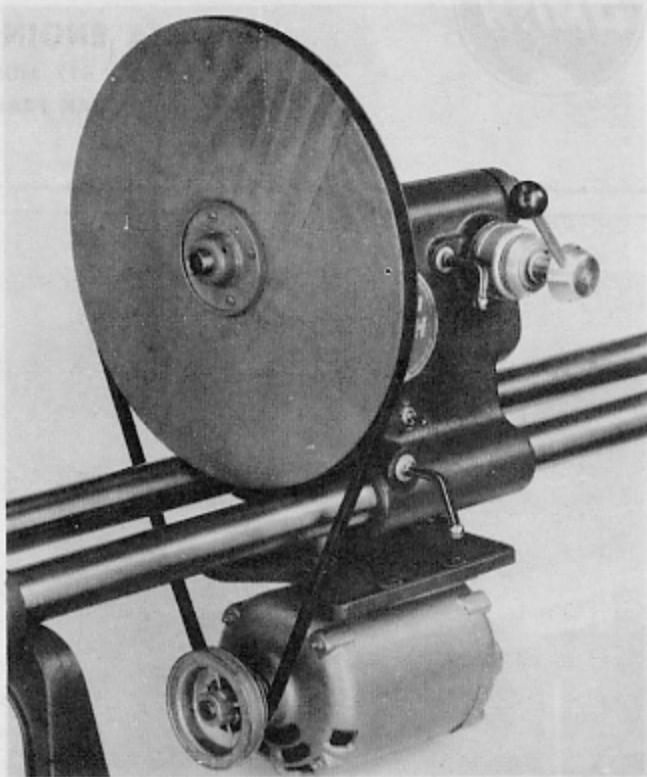
If you do a substantial amount of cross-cutting of thick lumber, you can eliminate interference from the headstock pulley by using a special two-step pulley. Since only the small-step of the headstock pulley is used while sawing, this SHOPS MITH accessory permits the blade to cut at its full depth without the pulley interfering with the workpiece. Use the extension table to provide maximum support for the workpiece.



PAINT MIXING

A muscle-saving and very clean method for mixing paint was suggested by **L. C. Kencke**, Concord, California. Instead of opening the lid of a new gallon of paint, simply punch a hole in the center of the lid. Through this hole insert a beater you can make by bending a piece of heavy wire or clothes hanger. Hold the beater in the Jacobs chuck, and run at high speed (approximately 3600 R.P.M.)

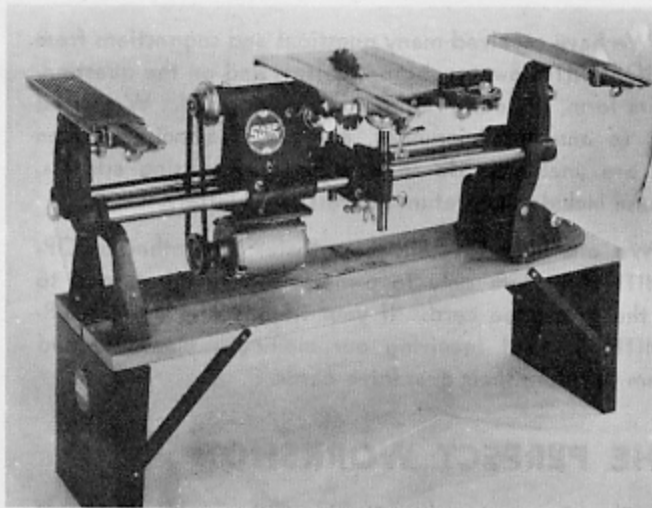
Move the can slightly up and down while mixing. Even the most stubborn paint should be thoroughly mixed in less than five minutes by this method.



SLOW SPINDLE SPEED

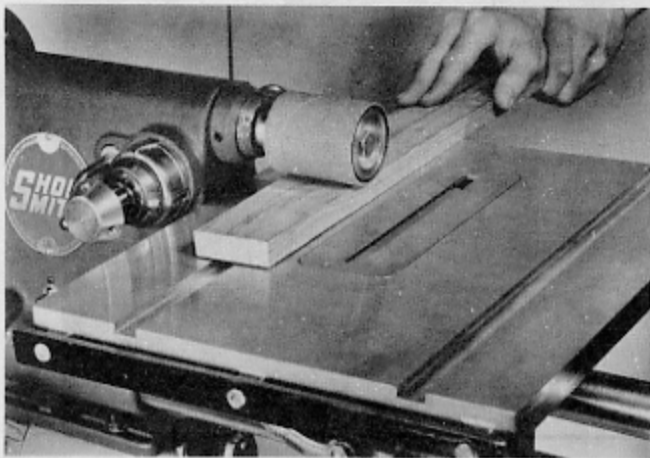
To obtain a very slow spindle speed for such jobs as cutting large-diameter holes with a fly-cutter, or using a large drill in metal, **J. F. Honey** of Menlo Park, California, suggests the following: Mount a disc of $\frac{3}{4}$ " plywood, cut to just over 15" in diameter, to a small face plate which has been drilled to accommodate the $\frac{1}{2}$ " drive shaft. Move the headstock pulley as close as possible to the headstock, and mount the face plate holding the disc on the end of the drive shaft (it may be necessary to adjust the motor for the new position of the headstock pulley). Turn the rim of the plywood disc to accommodate a standard 59" V belt. For this operation use the end of the tubular ways as a tool rest, protecting the machine surface with several layers of cardboard. Check during the turning operation to be sure that the depth of cut is correct to permit proper belt tension without necessitating re-adjustment of the motor mount.

Place a 59" belt on the outside of the tubular ways, and over the smallest step of the motor pulley. This method provides a motor speed of approximately 230 RPM. To preserve this large pulley, give it a coat of paint immediately after completion to prevent absorption of moisture.



A SAW TABLE 23" X 55"

If you have to cut a substantial quantity of large work pieces, including big plywood panels, you will probably find it helpful to use two SHOPS MITH extension tables and three or four front table extensions. As illustrated, SHOPS MITH table size is 23" x 55"! Owners of SHOPS MITH Model 10E who purchase a Conversion Kit will thereby have two extension tables and accordingly an extremely large effective table.

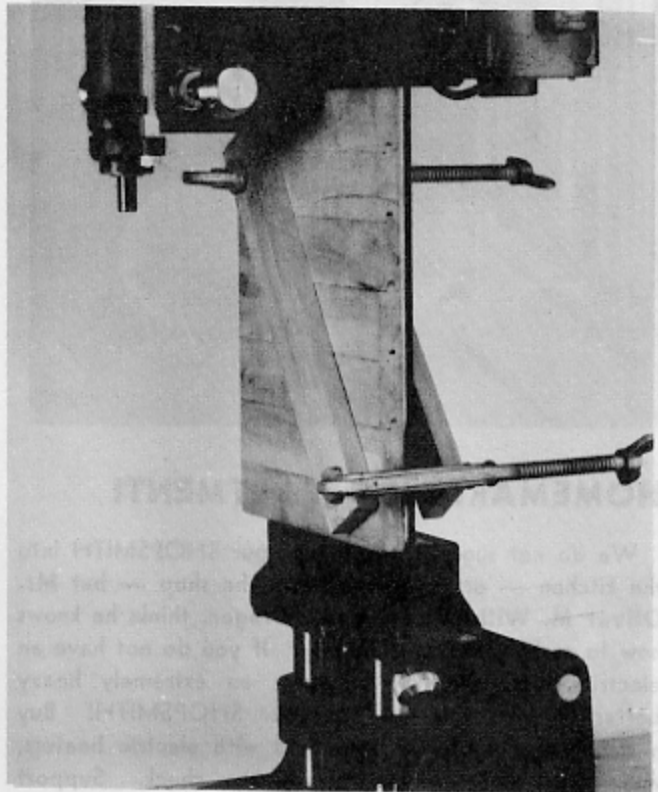


"PLANING" WITH DRUM SANDER

Work pieces up to 3" wide can be precision "planed" by using the SHOPS MITH Drum Sander. Mount the drum on the spindle so that it protrudes **over** the table. With the micro-adjustment table raising crank, set the table the desired distance from the sander — the exact thickness of the finished workpiece. For added safety feed the workpiece from the rear against the drum rotation.

This same method can be used for sanding the side of a triangular workpiece. To accomplish this, place the

fence on the table and tilt the table to the desired angle. Place two pieces of wood of slightly less width than the workpiece in the V formed by the table and the fence. With the drum sander placed above the V, the workpiece can then be fed through to sand the top surface. By changing the angle and making repeated passes, fine sanded moldings can be constructed by this procedure.



HANDY GLUE PRESS

To glue several pieces of narrow stock together to form a broad piece such as a chopping board or table top it is necessary to provide both pressure and a flat bearing surface. SHOPS MITH is a particularly handy way of doing just this.

With the ways horizontal, lay the pieces to be glued across the ways between the headstock and carriage. Then raise to a vertical position and release the headstock lever so it applies pressure against the top piece. **After** pressure has been applied, it may be desirable to clamp a board across the face of the pieces being glued to press them tightly against the ways to prevent buckling. Or light clothesline can be tied around the workpieces and ways to secure in place. This idea, as contributed by **Clair R. Poulson**, Lincoln, Nebraska, is illustrated in the accompanying photograph with kitchen chopping board constructed from short lengths of tongue-and-groove hardwood flooring.



HOMEMAKERS' DEPARTMENT!

We do not suggest you move your SHOPSMITH into the kitchen — or the kitchen into the shop — but **Mr. Oliver M. Willard** of Eugene, Oregon, thinks he knows how to make some wives happy. If you do not have an electric beater, or if you have an extremely heavy batter to mix, you can use your SHOPSMITH! Buy a single beater of the type used with electric beaters, and secure the end in the Jacobs chuck. Support the bowl on the SHOPSMITH table, and Mr. Willard does not think you can find a batter too thick to beat with the SHOPSMITH ½ h.p. motor! Mr. Willard also uses a hot plate on the table under a pan when beating hot foods such as mashed potatoes. Who's the cook in your family anyway, Mr. Willard?

NAMES AND ADDRESSES

We have received many questions and suggestions from SHOPSMITH owners, both in letters and on the questionnaire form, without a return address provided. We should like to answer all inquiries, and are disappointed when we are unable to do so because of a missing address. Please include your return address on all letters.

We are able to mail Shop Notes and other SHOPSMITH literature only to owners who have returned to us the guarantee card. If your friends who own SHOPSMITH are not receiving our mail-outs, please remind them to return their guarantee cards.

THE PERFECT WORKSHOP

When the producers of the currently popular "Ma and Pa Kettle" outfitted a house with the latest and finest of everything, their natural selection for a home workshop was SHOPSMITH. Pa Kettle won the house in a slogan contest, and his son (Richard Long) seems to have won a pretty prize himself (Meg Randall).



Do you have suggestions for

"Shopsmith" Shop Notes?

Magna Engineering Corporation will pay \$5.00 for each idea submitted by a SHOPSMITH owner which is published in "Shop Notes." Ideas received will become the property of Magna Engineering Corporation, who will also be the final judge of which items to publish. If similar ideas are submitted, payment will be made only for the first received.