issue no. 4

SHOPSMITH SHAVINGS

Formerly known as SHOPSMITH SHOP NOTES

Where are my issues of Shavings?

Because this question is asked so frequently, we would like to explain that **SHOPSMITH SHAVINGS** and other items of interest to SHOPSMITH owners are only published when sufficient material of general interest is gathered together. These mailings must necessarily be limited in number since the cost is substantial and the service free of charge to owners.

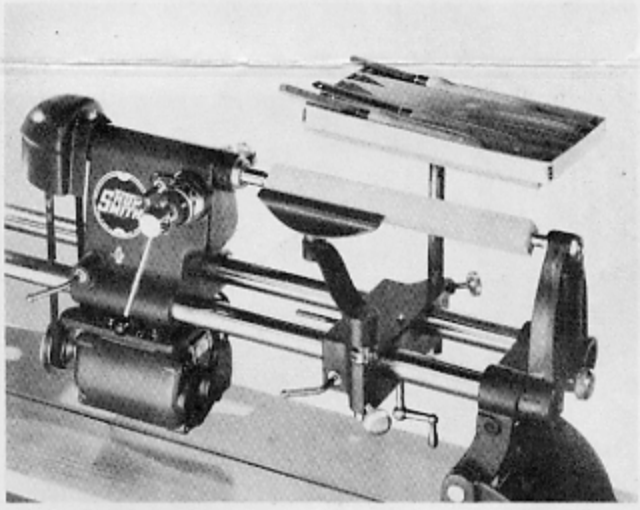
This issue of **SHOPSMITH SHAVINGS** is No. 4. If you have received **SHOPSMITH SHAVINGS** Nos. 1, 2, and 3, either in single issue or consolidated form, you are up-to-date. If not, we will be happy to supply the missing issues on request.

Home builder

Home builder **Mr. Tom Riley** of Portland, Oregon, is building his complete house with a SHOPSMITH. This house has been featured in POPULAR MECHANICS as the "POPULAR MECHANICS RANCH HOUSE." One application which we thought would be of particular interest to **SHOPSMITH SHAVINGS** readers is the manner in which he cut his Arizona field stone for the fireplace hearth. Mr. Riley desired to have random-fit stone. He simply ordered enough field stone to cover the entire hearth, cut it about one-third deep from the **back** side to the specific shape desired, and then broke the sheets of stone with a hammer. In this way he obtained stone with broken edges that would fit together. To do the cutting he used the SHOPSMITH flexible shaft and flexible cut-off wheel. He reports that they performed very well and advises the user to wear goggles. He also reports that he held the cut-off wheel by hand for the entire operation and it showed no tendency toward breakage or shattering. We see no reason why this same application should not be used for other cutting jobs around the house.

Lathe tool holder

While using the lathe, **Mr. Ralph Weaver** of San Diego, California, noticed the unused hole in the carriage opposite the tool rest. Well aware that SHOPSMITH specializes in using all parts to the best advantage, Mr. Weaver proceeded to fasten a tool box to a ¾" pipe. This he inserted into the carriage in the same manner as the tool rest. If you buy a set of SHOPSMITH lathe tools, use the partitioned cardboard container as a tool box; your tools will be neatly arranged and readily accessible. But beware of dangling sleeves, neckties, or loose clothing when you reach for a chisel.



Vertical headstock adjustment

If you want to raise or lower the headstock a few inches with SHOPSMITH in the vertical position, here is a simple way to make the adjustment. To raise headstock, set table in the vertical position with the table edge directly under the spindle tip. Raise the carriage until the table edge touches the spindle tip and tighten carriage lock lever. Mount the feed lever on the right side of the headstock so that your left hand will be free. Then release the headstock lock lever and extend the quill with the feed lever in the same manner as in drilling a hole. As the quill extends it will raise the headstock. To lower the headstock, simply extend the quill before setting the table edge against the spindle. Then grasp feed lever firmly, loosen the headstock lever, release the quill lock lever, and slowly feed quill back into headstock.

Jigsaw coupling alignment

A time-saver in mounting the jigsaw is the first of two excellent suggestions in this issue from **Mr. R. H. Reams** of Long Beach, California. With the jigsaw off the machine, rotate the SHOPSMITH spindle until the tapered flat faces the floor. Then paint a dot on the headstock pulley and a stripe directly opposite on the headstock. When mounting the jigsaw, it will then only be necessary to match the dot with the stripe to be sure that the Allen screw in the flexible coupling will seat on the tapered flat of the spindle.

Although this information is directed primarily to home craftsmen, it should be noted that SHOPSMITH is finding an increasingly important place in large commercial and industrial operations. The flexibility of SHOPSMITH is proving its worth even where space and cost are relatively unimportant.

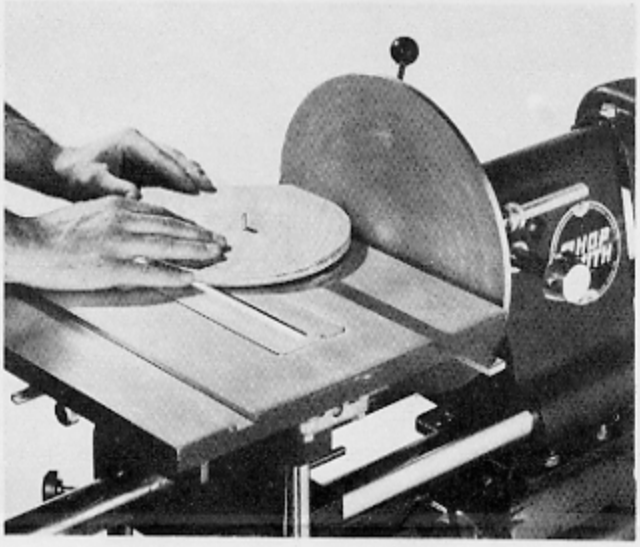
Readers who wish to pursue this subject further may be interested in an excellent article by Ray Millholland, "Can You Help America Arm," which appeared in the December, 1950, issue of POPULAR SCIENCE MONTHLY. This article gives valuable hints on getting jobs and cites the experiences of home workshop owners who carried on similar activities in World War II.

Sanding perfect circles

Perfect wooden circles for wheels, lamp bases, trays, etc., can be precisely formed by using SHOPSMITH sanding disc in the manner shown below:

Corners of workpiece should be sawed off to form an octagon slightly larger than final desired diameter. Drill an 11/16" hole in center of work. Remove miter gauge from miter gauge bar or mount a small bolt on a hardwood slat designed to fit the table slot. Mount work as illustrated. Final diameter can be predetermined by setting disc required distance from guide pin.

For large diameters, guide pin bar should be used in table slot farthest from disc. Circular edges can be beveled by tilting the table.



6" face plate as a sanding disc

Many SHOPSMITH owners use the 6" Lathe Face Plate as a small disc sander. 6" sandpaper discs in many different abrasive grits are available in almost all hardware stores. Mount them on the face plate the same way you apply the 12" paper to the regular sanding disc. Because the face plate is smaller and firmer it is particularly useful for sanding metal. Use Aluminum Oxide abrasive for copper, steel, and aluminum, and Silicon Carbide abrasive for brass and iron. When sanding metal be certain to protect the tubular ways by covering with a piece of cloth or canvas.

Chips and chat

North Pole, South Pole, East or West—like that well-known paint, SHOPSMITH "covers the earth." Happy SHOPSMITH owners are located in almost every civilized nation in the world. Some of the more exotic locations include Cuba, Aruba, Barbados, Curacao and Puerto Rico in the Carribbean area—Morocco, South Africa, Rhodesia, Gold Coast, Ethiopia and Kenya in Africa—Lebanon and Israel in the Middle East—India, Siam, China, and Japan in the Far East—Philippines, Guam, Micronesia, Marshall Islands, and Hawaii in the Pacific. And U. S. Weather Stations inside the Arctic Circle use SHOPSMITH to provide useful recreation for personnel during their long periods of isolation from the world.

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Plastic imbedded butterflies—SHOPSMITH is the only disc sander on which the disc may be fed into the work for fast and accurate duplication of workpieces. That's why an eastern manufacturer of plastic products keeps five SHOPSMITHS on his production line. Among other things, he uses them to apply precision surfaces to those familiar transparent plastic novelties with imbedded flowers, butterflies, and other decorative objects. He found that other methods were either too slow or produced imperfect faces that distorted the view of enclosed objects.

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Traveling workshops—The compactness and versatility of SHOPSMITH are contributing to more effective use of mobile workshops. In Santa Clara County, California, for example, students at small rural schools are privileged to use a complete power workshop for at least part of one day each week. It's made possible by a bus equipped with two SHOPSMITHS.

And then there's the traveling maintenance man of a well-known grocery chain. He takes his complete power workshop from store to store in a truck—naturally it's equipped with SHOPSMITH.

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About the horizontal drill press—we just learned that a large airplane manufacturer has purchased several SHOPSMITHS solely because horizontal drill presses were needed in the production line. They found that SHOPSMITH was their best buy for that purpose alone.

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Demonstration plus—**Ames and Brown Hardware Company** of Fort Madison, Iowa, is an organization that practices what it preaches. One of our salesmen reports that many of the fixtures in this fine hardware store have been built with the SHOPSMITH that is kept on the selling floor for demonstration purposes.

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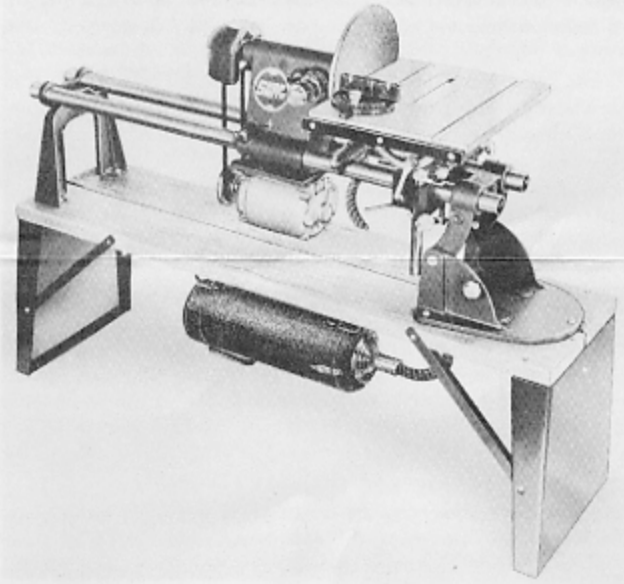
We only heard but we'd like to know more—about the 90 lb. housewife who is building a house with the aid of SHOPSMITH; about the well-known baseball pitcher who relieves pre-game jitters by building furniture with his SHOPSMITH; about the psychiatrist who uses SHOPSMITH and prescribes it for his patients to relieve nervous tension; and the wealthy manufacturer who is reported to have built most of the furniture in his sumptuous home with SHOPSMITH.

Are you a new SHOPSMITH owner? Then be sure to send us the Warranty Card attached to your SHOPSMITH. It gives us your address so that we can send future issues of SHOPSMITH SHAVINGS and other information of interest. And don't forget to give us your new address if you move.

Many SHOPSMITH owners use vacuum cleaners to solve their saw and sanding dust problems, but **Mr. R. H. Reams** of Long Beach, California, has submitted one of the most specific ideas along this line. As shown in the sketch below he has utilized an inexpensive reconditioned tank or floor model cleaner. The funnel simply rests on the tubular ways under the sanding disc, or on the carriage under the table for sawing. In our own testing of this idea we have found that it is a convenience to strap the cleaner motor housing under the SHOPSMITH bench out of the way. You may also wish to mount the vacuum cleaner switch on or near the headstock.



Mr. F. D. Rose of Ontario, Canada, built his bench like a bin with sides extending up to the trunnion base. We regret that space does not permit use of the fine drawing submitted by our Canadian neighbor.

Do you have suggestions for SHOPSMITH SHAVINGS?

Magna Engineering Corporation will pay $5.00 to SHOPSMITH owners for each idea published in **SHOPSMITH SHAVINGS.** Ideas submitted will become the property of Magna Engineering Corporation. If an idea used is submitted by more than one person, payment will be made to the first person submitting the idea.

The "Flexible Shop" for schools

Prominent educators have developed the idea of the Flexible Shop, an entirely new concept in school shop planning and power tool use. It's based on the flexibility inherent in SHOPSMITH and promises the following advantages for schools:

1 Improved teaching techniques.

2 Lower equipment and space costs.

3 More efficient utilization of student and instructor time.

A pamphlet which explains the Flexible Shop in detail has been written by **David D. Girard** and **Frank L. Vail,** industrial arts instructors in the California school system. Copies, including sample shop layouts, may be obtained free of charge by writing to **Educational Department, Magna Engineering Corporation, 417 Montgomery Street, San Francisco 4, California.**

SHOPSMITH printing press

That's right! Add printing press to the growing list of SHOPSMITH uses. **Mr. Phillip Woods** of Takoma Park, Maryland, printed his Christmas cards using SHOPSMITH and carved linoleum blocks. With SHOPSMITH in the vertical position, the wood-backed linoleum block is screwed to a face plate and attached to the spindle. Place the card in a wooden frame clamped to the table. Ink the block and apply pressure by feeding out the quill. Mr. Woods advises to carve the linoleum blocks carefully and to avoid excessive pressure when printing. Card printing can easily become a group project, particularly if there is an artist in the family.

100,000 defense plants

Ownership of SHOPSMITH makes your home a miniature defense plant. How?

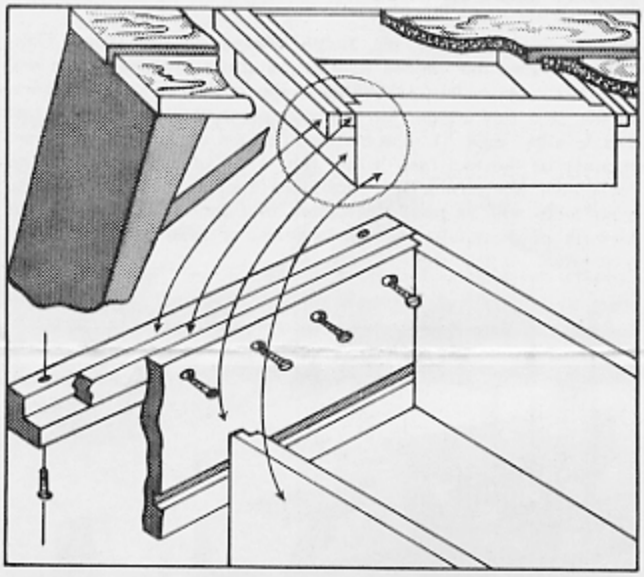
First, by relieving the pressure on facilities devoted directly to production of war goods. By making their own furniture and other equipment, by remodeling and repairing their homes, and by performing similar services for others, SHOPSMITH owners are saving vast numbers of man and machine hours that might otherwise be devoted to production of essential civilian goods.

Secondly, by helping industry directly. Many industrial plants are happy to know of reliable craftsmen who can make complete products or parts in their home workshops. These range from simple items such as boxes or carrying cases, suitable for less skilled craftsmen, to patterns for machinery parts that require a high degree of skill and knowledge. It was proved during the last war that such projects are facilitated if home craftsmen organize themselves into local groups to simplify dealings with manufacturers and permit allocation of projects in accordance with individual capabilities.

Many of these workshops could not have existed at all, or at least have been nearly so well equipped, if it were not for the space and cost saved by SHOPSMITH. Thus, because of SHOPSMITH, a big new reservoir of precision power workshops and trained users has come into being.

Bench drawer

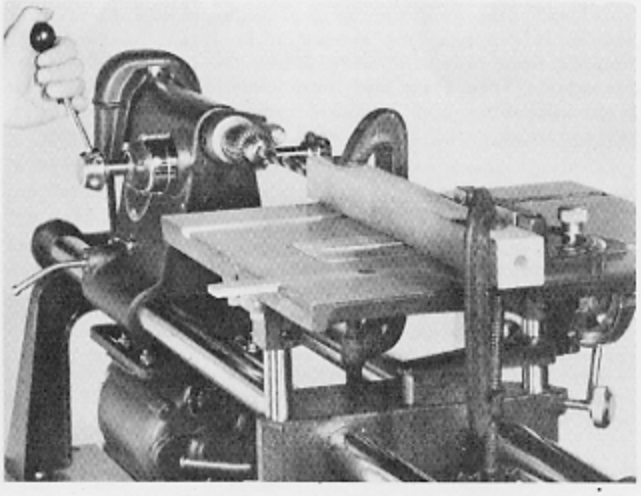
Many owners have constructed special benches for SHOPSMITH with drawers, racks, etc. All agree that a large drawer under the bench is very handy. The drawing below shows one way in which owners with the standard SHOPSMITH bench can construct such a drawer. To keep sawdust out, cover the slot between bench boards with tin or cardboard before mounting drawer. Most owners also find it useful to fit the interior of the drawer with compartments for frequently used attachments.



Mr. Robert Munizch of Sacramento, California, uses his bench to best advantage by suspending the miter gauge and rip fence in slotted holes 1" from the edge of the bench top. The same can be done with Allen wrenches and other attachments.

Drilling long holes

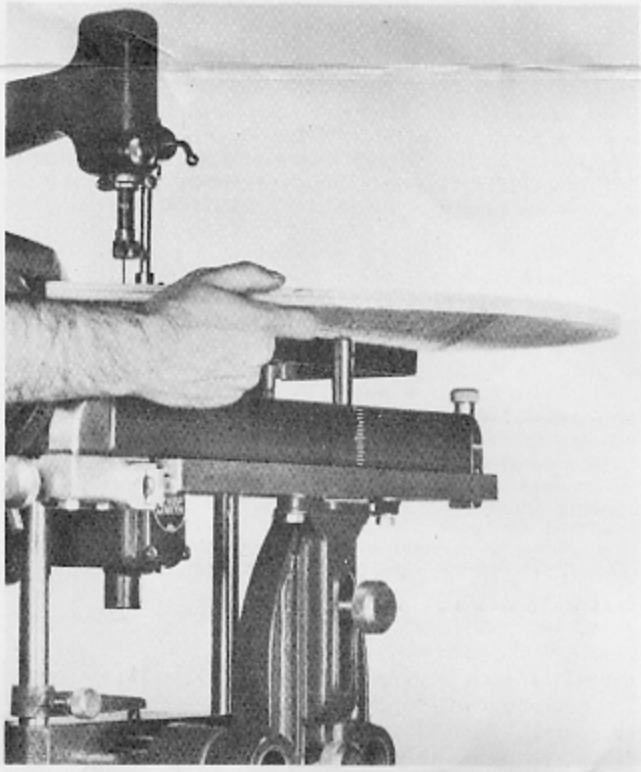
While making lamp stands, **Mr. Richard Fisher** of Los Angeles, California, discovered that it is simple to drill a hole up to 16" or longer with SHOPSMITH, using a 10" drill. Place SHOPSMITH in the horizontal drill position. Use miter gauge set at 0 and micro table adjustment to align workpiece with drill. Then clamp it firmly to table. Drill 4" hole in conventional manner, retract bit, and slide carriage toward headstock until drill tip touches bottom of hole. Then lock carriage and repeat drilling operation. To drill the remaining half of the hole, reverse the entire table assembly. This is accomplished by removing the table from the carriage and re-inserting it with position of table rods reversed. The drilling operation is repeated in same manner as described above.



Jigsawing large circles

SHOPSMITH Jigsaw owners will like this one. **Mr. George Bell** of Elizabeth, New Jersey, suggests an accurate method for jigsawing circular pieces from 16½" to 66" in diameter. With jigsaw in position, insert lathe cup center in hole on top of rip fence and mount rip fence on extension table. Owners of Model 10E should mount the cup center in the fence back lock assembly which fits on the Model 10E rip fence. Adjust height of extension table so that the point of the cup center projects 1/16" above the level of the saw table. Slide the headstock and carriage along the tubular ways until the distance between the saw blade and the point of the cup center is equal to the radius of the desired circle. Then rest your workpiece on the cup center and rotate it through the saw blade.

Speaking of jigsaws, a 6 13/16" spacer block will shorten jigsaw setup time. Use it between the headstock and carriage in the same way that the spacer stud is used with the circular saw. Drill a hole in one end of the block and fit it over the regular spacer stud. When the jigsaw unit is moved along the tubular ways, it will maintain constant spacing.



Simple sawdust solutions

It's a woodworking joy to cut into cedar, white pine, or new oak, and breathe the fresh tangy odor. We all seem to agree however, that even fragrant sawdust becomes a nuisance at times. Many SHOPSMITH owners have shown their ingenuity by designing special equipment to combat the sawdust problem.

A "90% sawdust catcher" is the claim of **Mr. Gordon Snyder** of Seattle, Washington. Attach two wire hooks to one end of a 15" x 48" piece of canvas and hang them on the bosses which support the fence guide bar. Pass the other end of the canvas under tubular ways and hook in like manner to the rear table bracket. A couple of tucks in the sides complete a large capacity bag. Just like your lawn mower grass catcher, it's easy to unhook and empty.

Mr. Bassel Johnson of Hilliards, Ohio, hangs a 12" x 18" light gauge metal plate from the bosses which support the fence guide bar. Thin hooks are used to attach the plate so they will not restrict movement of the rip fence. Dust from the saw hits the plate instead of the operator.