

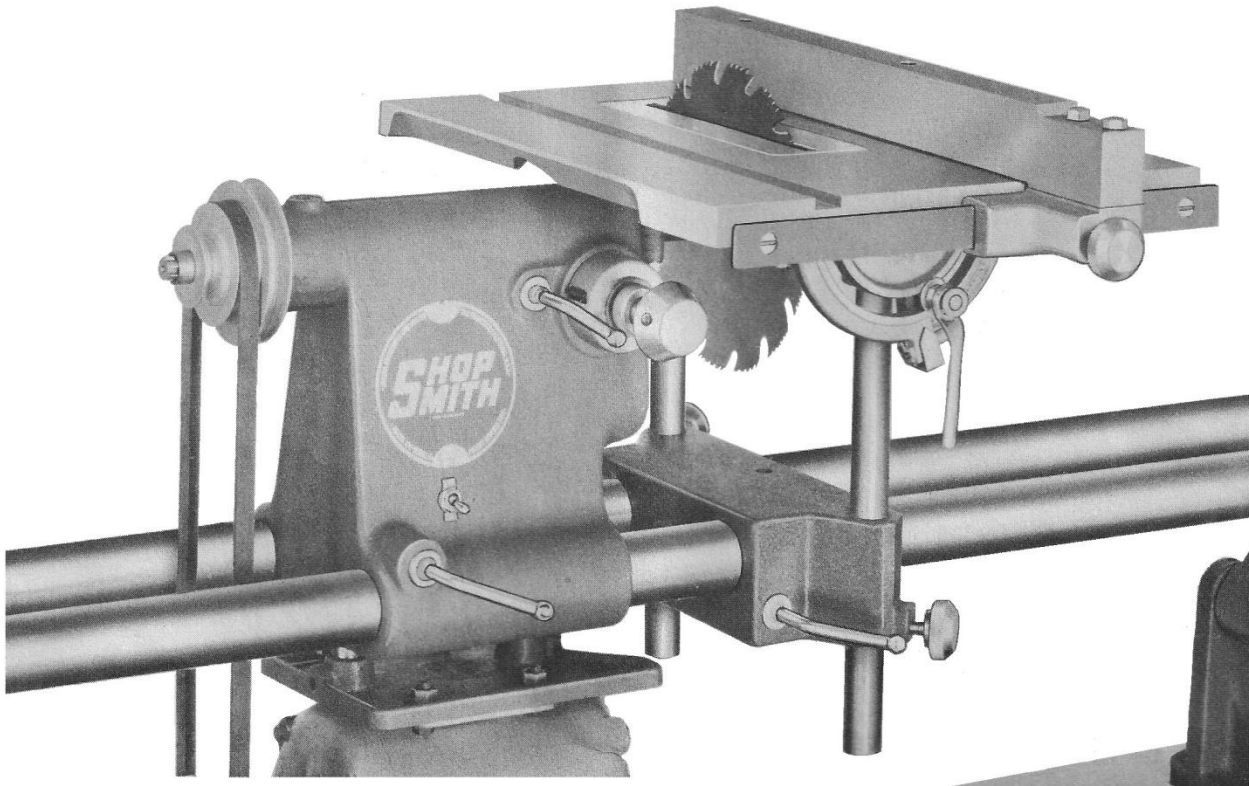


FIG. 12

To raise table hold top of table with left hand and release carriage knobs; lift table evenly from both sides and tighten knobs.

Always be sure both carriage knobs and carriage lever are locked before starting motor.

The table can be tilted (Fig. 13) by raising it to clear saw blade, locking the front carriage knob and releasing nut with trunnion wrench. To use automatic trunnion stops, pull the brass flange forward when tilting. **NOTE:** Because the pivot center of the table is below the table top, the saw slot will move in an arc; therefore the quill must be advanced and locked.

The rip fence is smoothly finished on both sides and can be used on either side of the saw. Adjustment is held by tightening fence knob.

Double miter-gauge grooves on the table allow cutting right or left-hand miters. Gauge pivots to 60 degrees in either direction.

CAUTION: Miter gauge should be used only on right side of saw when table is tilted.

The exclusive table extension feature (Fig. 14) gives the Shopsmith the largest effective table of any 8-inch bench saw. Attached to the lathe tailstock by wing nuts, the extension table can be adjusted to the height of the saw table, either by sighting along the main table or, more accurately, by sliding the carriage and headstock together to the tailstock and adjusting extension to table height.

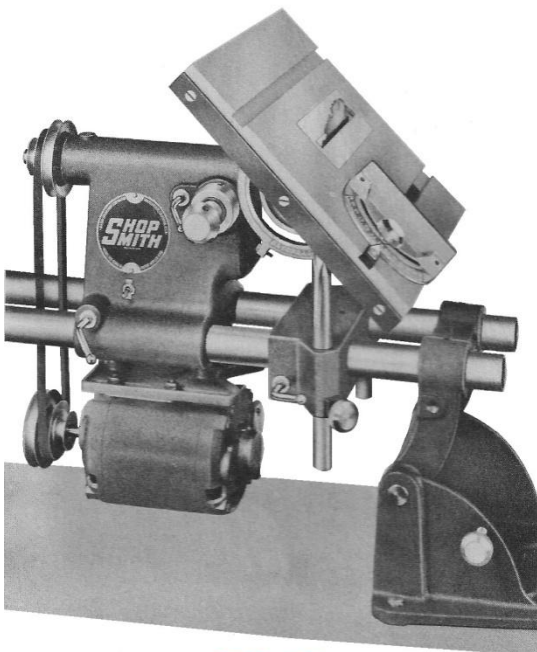


FIG. 13

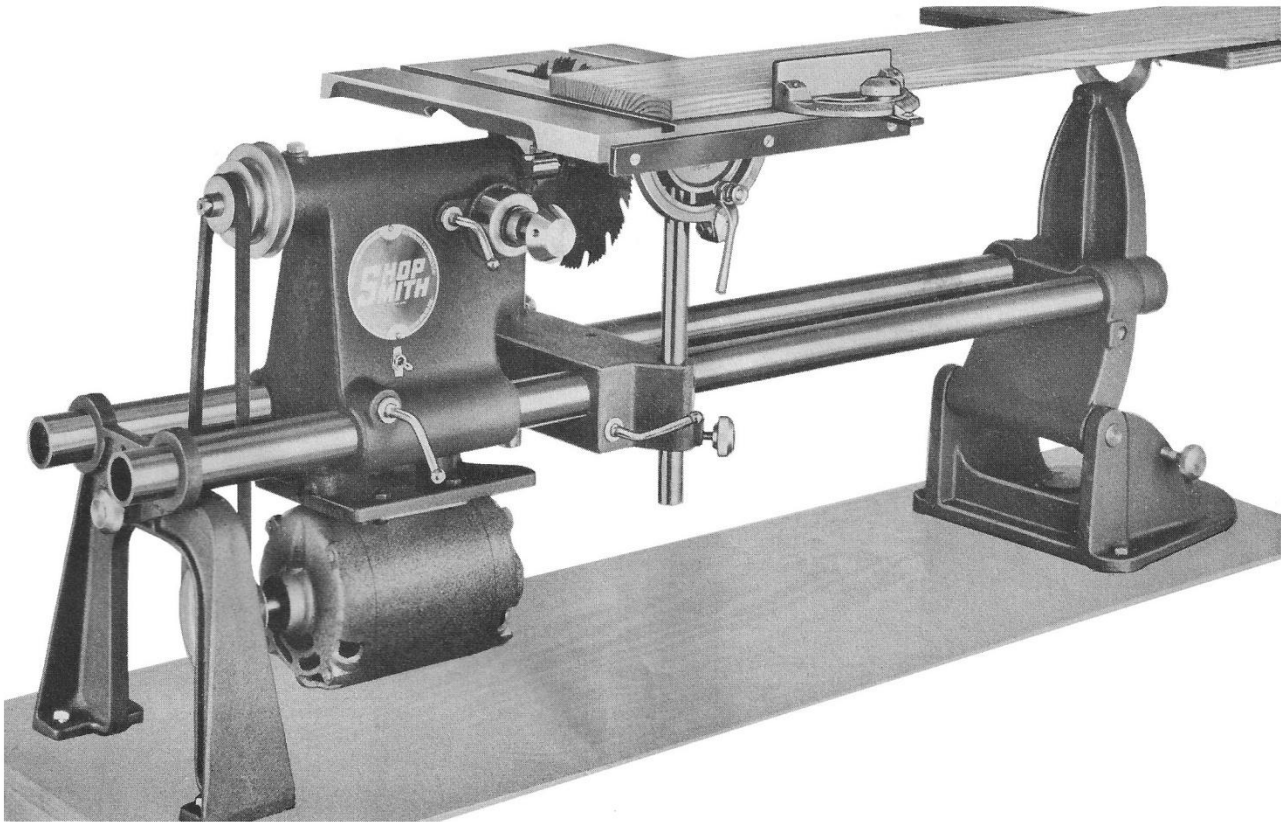


FIG. 14

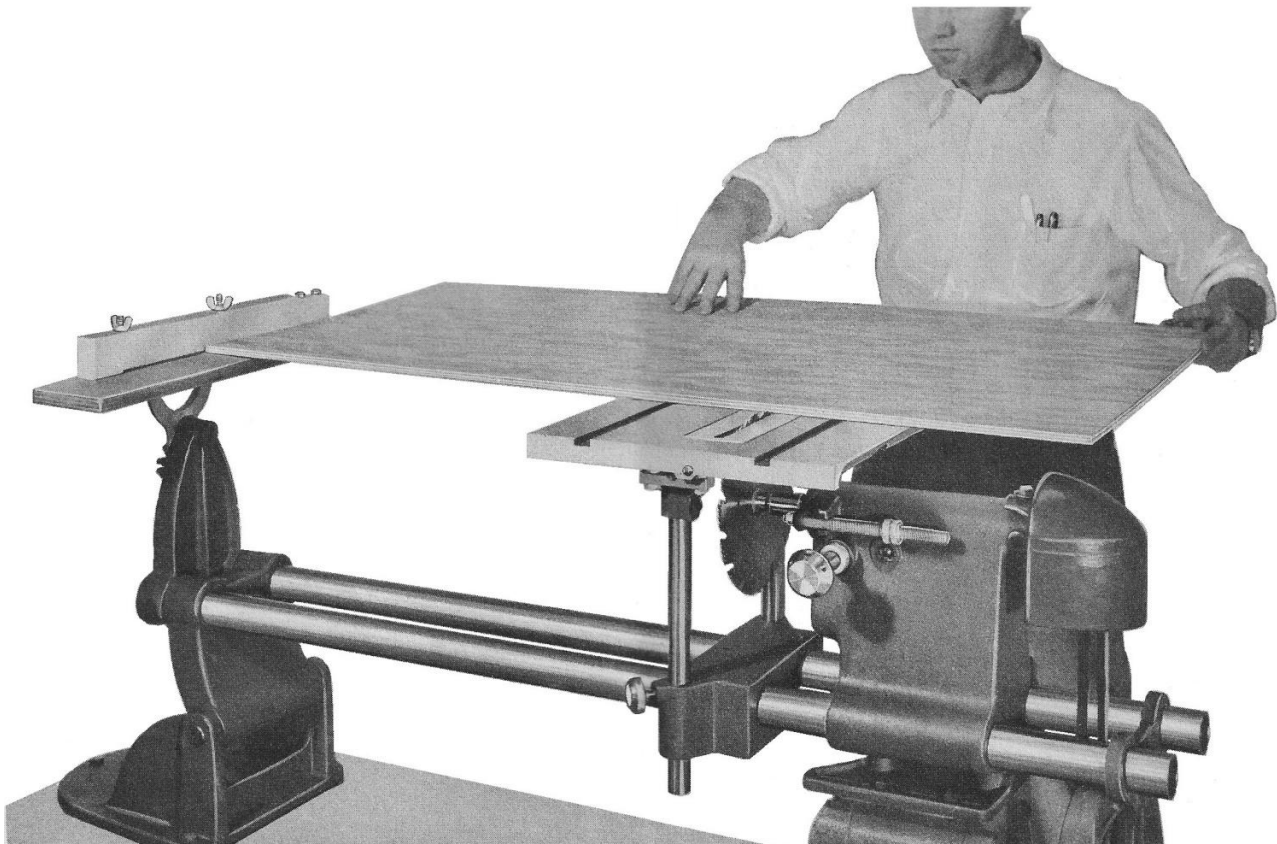


FIG. 15

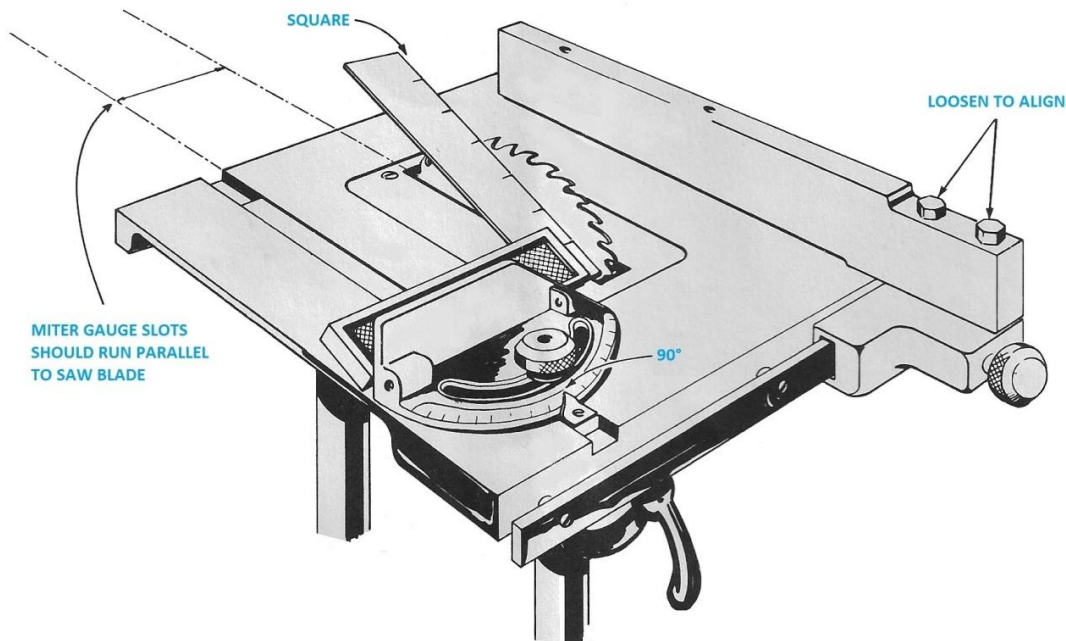


FIG. 16

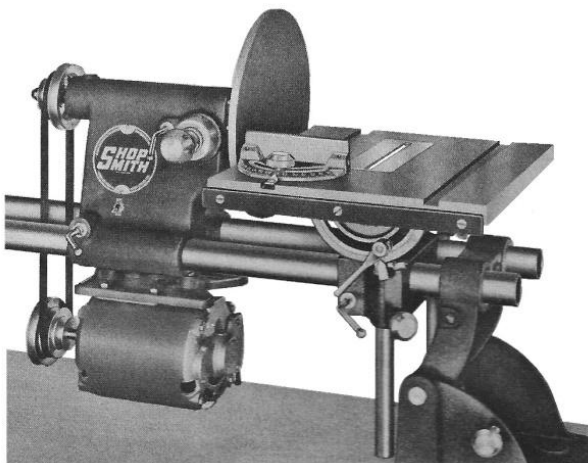


FIG. 17

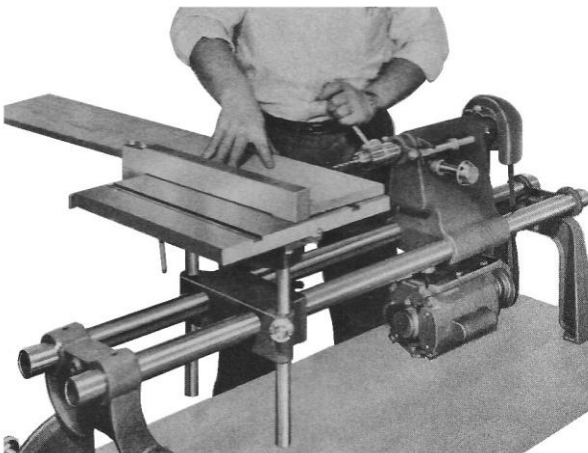


FIG. 18

For crosscutting, with the miter gauge, use the extension as a work rest. For ripping work beyond the capacity of the table, such as ripping a large panel (Fig. 15), the rip fence can be attached to the table extension by two threaded studs; these are attached to the underside of the extension with wing nuts and can be removed when they interfere with crosscutting jobs.

It is worth noting that the table extension and tailstock fit on either end of the tubular ways. When applied to the left, or motor-end, the greatest effective table area will be obtained.

CAUTION: To prevent accidents, do not leave saw blade on the spindle when the machine is not in use.

When using the circular saw:

Always use "push sticks" to feed work close to the blade. Keep a set of such sticks in different widths where they will be easily available.

Always use the saw guard; it will slide smoothly over the work and protect the operator. *Guard if shown removed was for photo illustrations only.*

Re-check to see that carriage lever and knobs are tight before starting the saw.

Rotate the saw by hand to check clearances, before turning on the motor.

SAW ADJUSTMENTS - Miter-gauge slots on saw table should be parallel to the saw blade; otherwise a true right-angle cannot be cut. Check by holding the blade of a square or other straightedge guide, against the miter-gauge slot with the end against the saw blade (Fig. 16). Mark the saw tooth and turn it to the opposite side; measure the distance in the same way from the back. If the distance is not the same at front and back, the table must be "revolved."

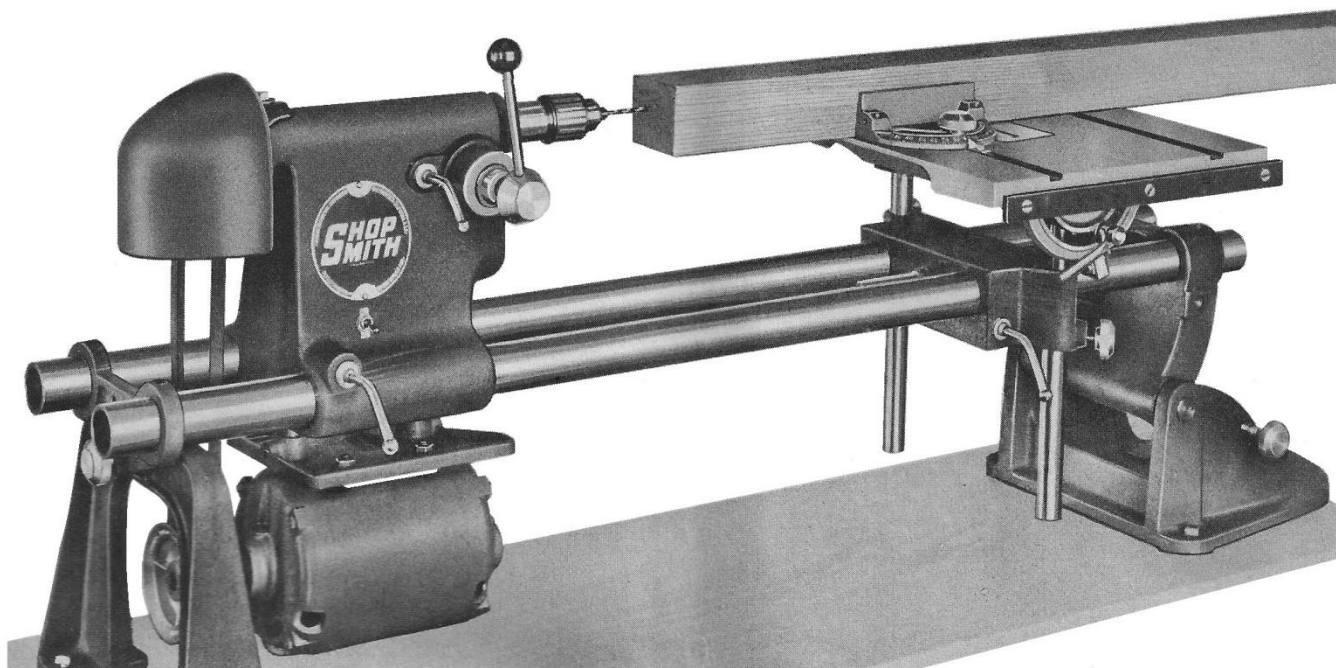


FIG. 19

To do this, loosen the four bolts underneath the table that hold it to the trunnion and table bearing. There is sufficient "play" in these holes to permit any adjustment the table might require. When alignment has been checked, tighten bolts. To check accuracy of miter-gauge settings, square the miter-gauge head with the table slots with a square; reset pointer if necessary.

Rip fence should be parallel to the saw blade. When miter-gauge slots have been checked (as above) the fence should be parallel to the slots. If adjustment should be necessary, loosen the two bolts in the rip fence head; correct alignment and tighten.

DISC SANDER - The 12-inch cast aluminum sanding disc ([Fig. 17](#)) fits directly onto the spindle tip. Be certain the setscrews are tightly applied against the spindle "flat." Do not operate at excessive speed; use "second" or intermediate speed, which is fast enough for all purposes.

The saw table is used as a work support. Set surface of the table about 1 1/2 inches below center of the disc. Edge of table should clear disc by about 1/8 inch. Plain and compound miters are sanded by using the miter gauge, tilting the table, or both.

New abrasive discs can be applied by stripping off the worn disc and holding a stick of adhesive against the revolving disc until evenly coated and then pressing fresh disc into even contact.

The headstock and carriage can be moved to the extreme right, which will give maximum operating convenience to the operator.

CAUTION: In sanding-disc operations, the table should always be horizontal or tilted away from the disc - never angle table into the disc.

HORIZONTAL DRILL PRESS - In addition to handling work too large or too awkward to be worked on a vertical drill press, Shopsmith, as a horizontal drill press, will do many jobs with greater precision and ease. Jacobs chuck is placed on the spindle and held in place by tightening its setscrew. Drills, reamers and other tools within the 1/2-inch capacity of the chuck are tightened or released by the accompanying chuck key.

CAUTION: Always be sure to remove key from chuck before applying power to motor.

Locate table at desired position on the ways and set for height. The rip fence and miter gauge can be used either as guides or stops. For example: if it is required to drill a series of holes along the edge of a 1 x 12" plank ([Fig. 18](#)) adjust table so point of drill will center at required points and set the rip fence, as a guide, to bear against opposite edge of the work. Back end of fence may be secured with a "C" clamp. For end-drilling in long stock, ([Fig. 19](#)) the work can be held to drill a true hole by clamping miter gauge to the table after the drill has been centered. **When Shopsmith is used in its horizontal position, the feed lever should be screwed into the pinion shaft knob on the side nearest the operator, so that the drill feed can be made without reaching over the headstock.**

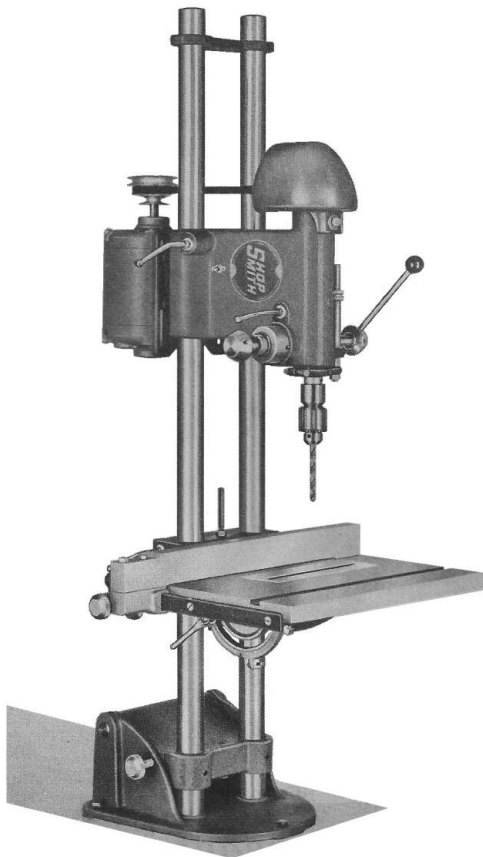


FIG. 20

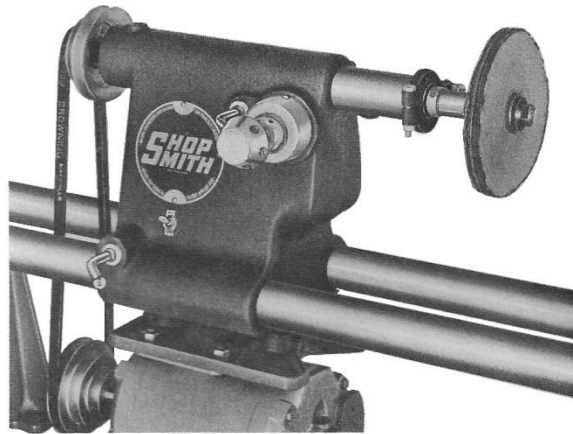


FIG. 21

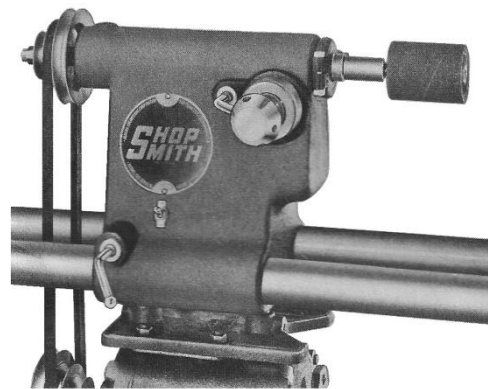


FIG. 22

VERTICAL DRILL PRESS - To change Shopsmith from any horizontal-operating unit to a vertical drill press, simply raise and lock the table to its highest position and swing it at a right angle to the ways (Fig. 20), then release carriage knobs until table settles down against carriage. Move carriage to a point about 15 inches from base plate arm and tighten carriage lever. This point will vary according to the operator's height to give the most convenient operating level. Move head-stock up until chuck is about 8 inches from the table and lock headstock lever. Check to see that the base-plate knob is unscrewed and unscrew the headstock knob. Grip the ways with both hands near the headrest and swing entire unit up to the vertical position. Tighten base place knob. The feed lever can be used on either side and the drill press operated from the right or left at the operator's convenience.

Lock nuts on the depth stop-rod can be set to control length of spindle stroke or boring depth. The quill lock-lever will hold the spindle at any extended position. The rip fence is a very useful guide for drilling a series of holes, or as part of a jig; and the table will tilt to any desired angle.

It will be advisable to use a piece of wood as a "pad" between the table and work to be drilled in order to prevent the table from being scarred.

CAUTION: When drilling metal, always support the work in a table vise or clamp, or clamp it securely to the table; do not attempt to hold such work in the hands. Re-check to be sure headstock lever and carriage lever are tight before raising to vertical drill-press position.

MISCELLANEOUS APPLICATIONS

BUFFING - Use buffing wheels on the saw arbor (Fig. 21) and operate at high speed. Polishing compounds, such as tripoli, emery and rouge deposited on the ways should be carefully removed before sliding carriage or headstock.

SCRATCH BRUSHING - Steel or brass-wire scratch brushes in various degrees of fineness can be used to produce either a rough-textured or fine satin finish on metals, depending on type of brush and operating speed.

DRUM SANDER - In either its horizontal or vertical position, Shopsmith can be used to excellent advantage as a drum sander (Fig. 22). Tool rest can be used as a guide.