



INSTRUCTIONS AND PARTS LIST FOR POWER KING 4½ JOINTER-PLANER

CATALOG NO. 541

All of the equipment furnished with the jointer-planer is wrapped in the papers that support the machine in the carton. Be sure **EVERYTHING** has been removed before the carton and papers are destroyed.

ASSEMBLY

1. Fasten the Fence Bracket to the right side of the front table with the cap screws provided, see Figure 2. Put the fence on the fence bracket and tighten the lock.
2. Mount the Guard—put the fibre washer on the guard stud, fasten the guard spring to the cotter pin in the table, and push the stud into the hole in the top of the table.

MOUNTING JOINTER

Mount the jointer on a level bench or table and check to make sure the base rests solidly on **ALL** feet before bolting it down—uneven mounting could eventually throw the tables out of alignment.

Cut a hole in bench top directly beneath the blades — it will simplify chip removal.

MOTOR REQUIREMENTS

The Power King jointer-planer requires a 1/3 HP, 1725 RPM motor, preferably repulsion-induction or capacitor type.

If a 3450 RPM motor is used, a 1-27/32" diameter motor pulley is required (No. TS7A-65, ½" hole) or (No. TS7A-138, ⅝" hole).

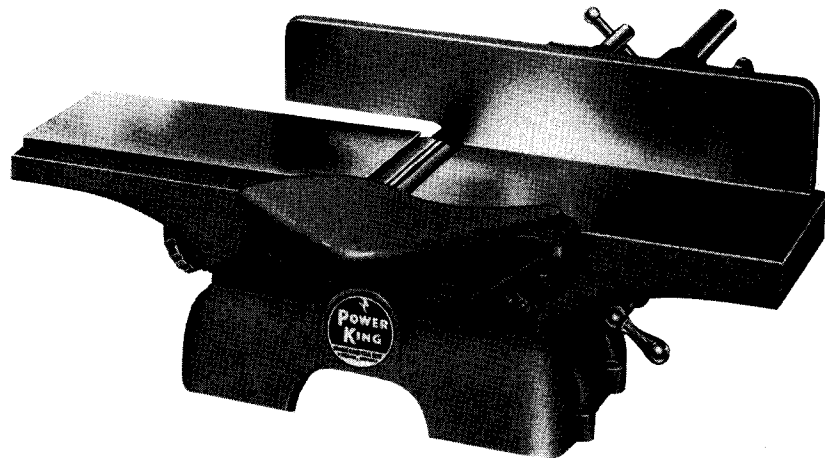


FIG. 1

CAUTION: Be sure to use a 3-11/16" diameter motor pulley with a 1725 RPM motor, and a 1-27/32" diameter pulley with a 3450 RPM motor. They are **NOT** interchangeable and other sizes will not give satisfactory performance.

STATIC ELECTRICITY

Sometimes a slight shock is experienced when touching the jointer. This may be caused by a static electrical charge built up by the friction of the moving parts and is not necessarily an indication of faulty motor windings or grounds. To correct, ground the jointer to a water or heater pipe.

CONTROLS

1. The Ball Crank Handle beneath the front table controls table for depth of cut adjustment.
2. The front Table Lock Knob—right side of jointer—locks front table in position. Be sure to release the lock before adjusting table.
3. Knob beneath rear table controls rear table elevation. Before adjusting table, loosen hex cap screw on right side of jointer frame.
4. Knob on fence slide bracket locks and releases fence for width of cut adjustment.
5. Fence tilts 0° to 45° left and right—fence tilt lever locks it in position—see Figure 2.

ADJUSTMENTS

1. **ALIGNING REAR TABLE**—The top of the rear table must be exactly level with the cutting arc of the blades. To position:
 - (a) Loosen table lock screw on right side of jointer, and raise or lower the rear table until it is level with the cutting edge of any one blade at its highest point in the cutting arc.

(Continued on Page 4)

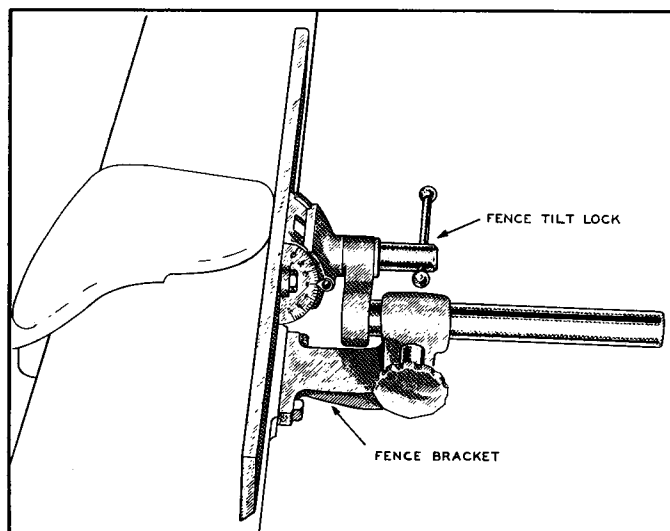
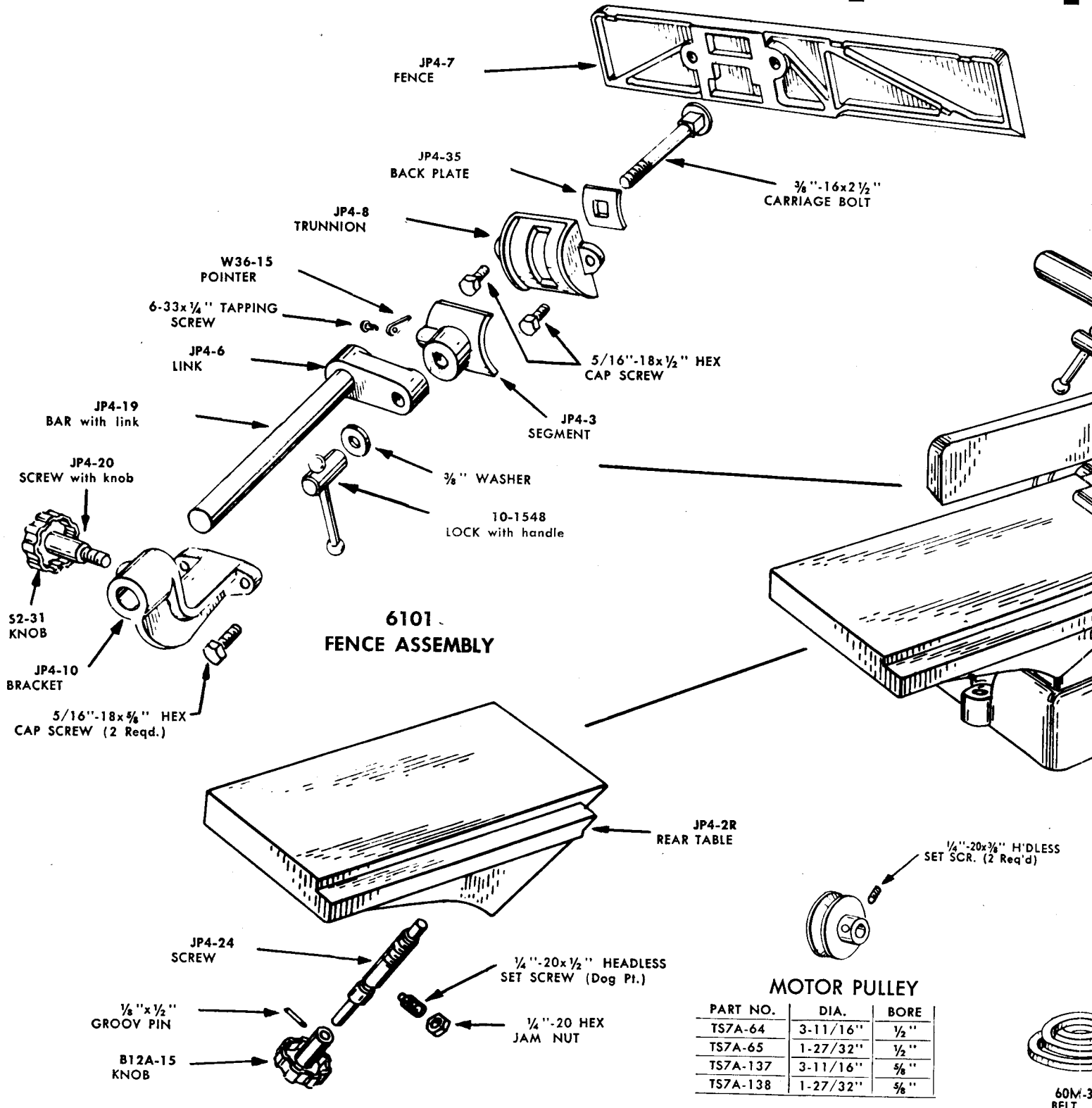


FIG. 2. Jointer Planer Fence

REPAIR PARTS FOR POWER K



ORDERING INFORMATION

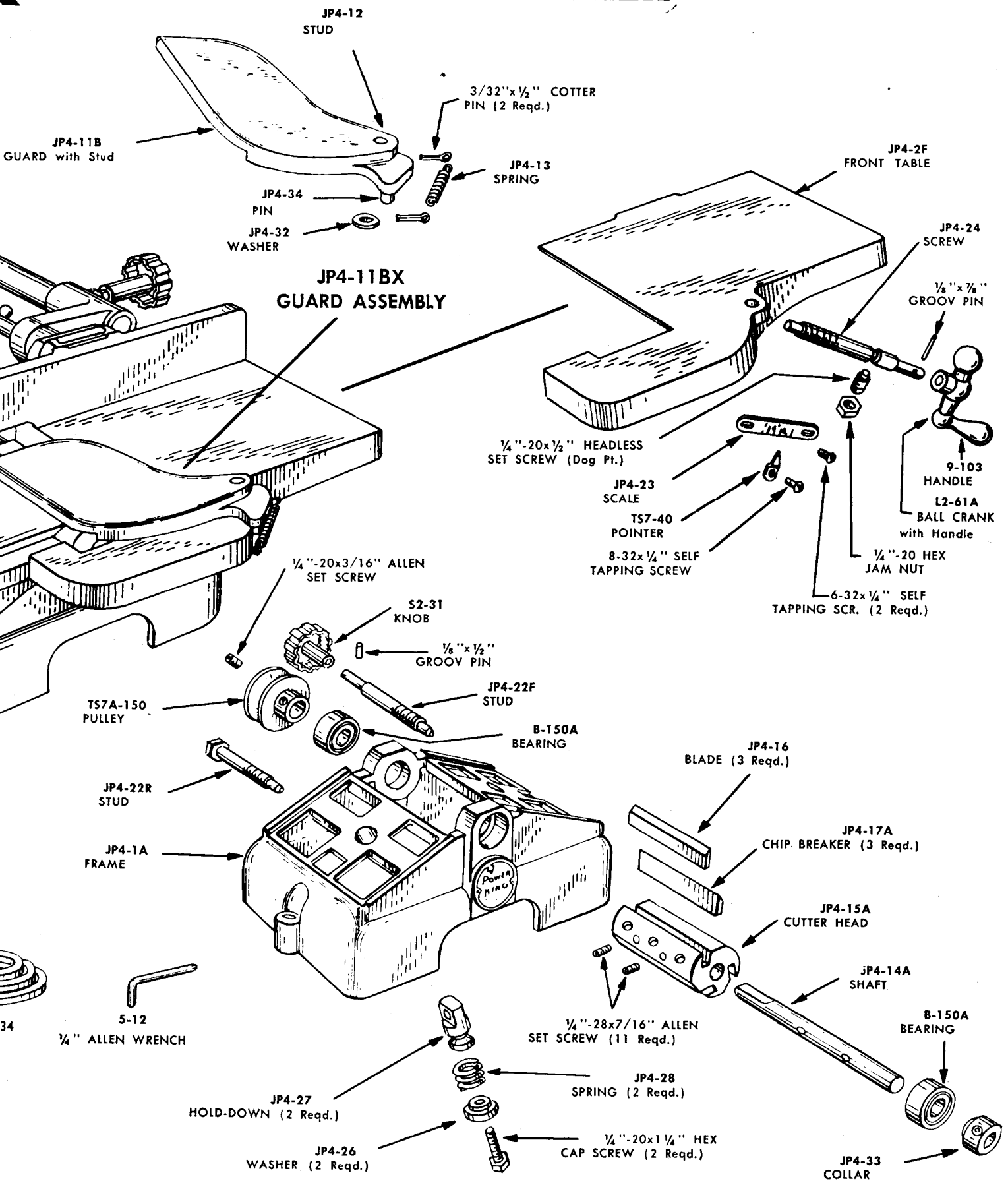
IMPORTANT: Order all repair parts by PART NUMBER and NAME.

NOTE: Standard parts, such as bolts, nuts, washers, etc., shown above without part numbers should be purchased locally. ALWAYS GIVE SERIAL AND MODEL NUMBERS STAMPED ON PLATE. PLATE LOCATED ON BASE OF JOINTER.

ATLAS PRESS COMPANY

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KING No. 541 JOINTER-PLANER



OPERATING INSTRUCTIONS

- (b) Check accuracy of setting by placing a straight edge on the rear table so that one end projects over the cutter blades. The blade should just touch the straight edge—**BUT NOT MOVE IT.**
2. **ADJUSTING CUTTER BLADES**—Each blade must be the same height and parallel with the rear table. To adjust:
- Remove fence and guard.
 - Place a straight edge on the center of the rear table with one end projecting over the cutter blades.
 - Revolve cutter by hand and adjust blades to touch straight edge — **BUT NOT MOVE IT.** To adjust blades, loosen the set screws which hold them. If a blade is high, tap it lightly with a piece of hard wood. If a blade is low, raise by inserting a small punch under bottom edge.
 - Repeat above operations, placing straight edge along each side of table, adjusting blades if necessary.
 - Place paper or metal shims beneath blades so they seat firmly.
 - Tighten the blades securely.

CAUTION: Be sure the chip breakers seat firmly against the bottom of the cutter head channels after making blade adjustments.

3. **ADJUSTING TABLE DEPTH GAUGE** — Place a straight edge on the front table so that one end projects over the cutter blades. Adjust table until blades just touch the straight edge. Depth gauge pointer should be at the zero reading when table is in this position. To adjust pointer, loosen the set screw that holds it.
4. **ADJUSTING FENCE**—Loosen the fence tilt lever—see Figure 2 — and, with a square, set the fence perpendicular to the table. Tilt gauge pointer should be at the zero reading. To adjust pointer, merely loosen the set screw.

SHARPENING THE CUTTER BLADES

Keep the blades sharp. When it seems hard to feed the stock across the blades, when you feel your stock chattering, or when the surface of the planed wood begins to have a slightly fuzzy look—it's time to sharpen the blades.

Generally, honing the blades with a flat oilstone or slip stone of medium grade is all that's required to sharpen them. However, when this is ineffective, grind the blades — if you're not familiar with the process, have them ground by someone who specializes in such work.

Before honing the blades, check their alignment—see **ADJUSTMENTS**, part 2. Lock front table $\frac{1}{8}$ " below cutting edge of blades. Partly cover the stone with paper—so it won't scratch the table — and lay it on the front table. Turn cutterhead so that the stone is resting flat on the bevel of a blade. Hold the head in this position and rub the stone with an even pressure lengthwise of the blade until the blade is sharp. Treat each blade with the same number of strokes.

Readjust rear table if necessary — see **ADJUSTMENTS**, part 1.

JOINTER OPERATIONS

PLANING — Wood up to $4\frac{1}{2}$ " thick may be surfaced without removing the guard or fence.

CAUTION — When planing boards under $\frac{1}{2}$ " in thickness, always use a pusher



Fig. 3. Wood pusher block for planing thin wood.

block, such as the one shown in Figure 3, to feed the work past the blades.

Remove the guard and fence when planing wood wider than $4\frac{1}{2}$ inches. Take thin cuts of approximately the same width—first the outside cuts, then the inside cuts. Always plane a board **WITH** the grain. If the direction of the grain changes, feed the stock **SLOWLY**.

JOINTING—When making square or bevel joints an equal amount of pressure must be applied to the work to hold it securely against both the fence and table. Feed the work into the blades at a uniform speed. A supporting block, held in the left hand, will aid in cutting long pieces of wood.

BEVELING—Tilt the fence and lock it in desired position. Take medium cuts until bevel is near full shape—take light finishing cuts.

RABBETING — Remove the guard, and slide the fence toward the left edge of the table until it's the same distance from left end of cutter blades as the width of the rabbet. Lower the front table to depth of rabbet — the full depth of rabbet, if not beyond the capacity of the machine, should be made in one cut. Feed the work slowly if cut is wide or deep.

LUBRICATION

Use S.A.E. No. 20 Machine Oil

- SPINDLE BEARINGS**—Oil the bearings every month if the machine is used frequently; if it's used infrequently, oiling every six months will be adequate. To oil, remove pulley and collar next to bearings.
- TABLE AND FRAME WAYS**—Oil at regular intervals.
- TABLE ADJUSTING SCREWS**—Oil at regular intervals.

SUGGESTIONS FOR OPERATION AND MAINTENANCE

- * Keep guard on machine whenever possible.
- * Keep blades sharp—check alignment regularly.
- * Be sure the blades are fastened securely in the cutter head.
- * Keep fence locked securely.
- * Always examine stock carefully before planing to make sure it's free of nails and old paint.
- * When planing thin stock always use a pusher block to feed the work past the cutters. Keep your hands on top of the work.
- * When a very smooth finish is required, take cuts of $\frac{1}{32}$ " or less, and feed the stock slowly.
- * Mount machine properly — follow the instructions on page 1.
- * Cut a hole in bench top to simplify chip removal.
- * Maintain proper belt tension — keep the belt just tight enough to prevent it from slipping.
- * Keep set screws in motor and arbor pulleys tight to prevent scoring of motor shaft and arbor.
- * Keep the jointer table covered with oil when jointer is not in use.