POWR-KRAFT

POWER TOOL CATALOG

8-In. Bench Saw shown above is listed on Page 2; Drill listed on Page 26; Sander, Page 27; Portable Saw, Page 27; Bober Saw, Page 27. Convenient Index on Page 38. Monthly Payment Plans Information is shown on Page 49. For complete Ordering Information turn to Page 19.

St. Paul - Kansas City - Denver - Ft. Worth

Montgomery Ward - 1954-55
A 39.50 Less extensions.

B 46.95 Less extensions.

Do-It-Yourself Faster and Easier With Powr-Kraft and

POWKRRAFT HOBBIST'S SAW 39.50

8-in. Tilting Arbor Model. Many features of more expensive models. Grease-sealed ball bearings assure long life. Two handwheel controls—one wheel raises or lowers 8-in. diam, blade, controlling depth of cut, other wheel tilts blade and arbor to 45° for angle cuts. Size overall: 16 x 24 x 1 3/4 in. See complete specifications at right.


94 WT 3315 M—Saw only, $44.00, Cash $39.50

TABLE EXTENSIONS. For saw A. Cost iron, Size 6 x 17 1/4 in. each. Mountable.

94 WT 3318 M—Ship. wt. 22 lbs...Pair $10.95


94WT3917F—Not Mount. $8 Down...Cash $75.75

POWKRRAFT MEDIUM-DUTY SAW 46.95


With 8-in. combination crosscut-rip-miter blade, 4-in. diam, motor pulley (fits 1 1/2 x 5/8-in. shaft), 1 1/4-in. diam, machine pulley, 3/4-in. "V" belt, motor bracket, guard and splitter. Mountable. Ship. wt. 56 lbs.

48 WT 3480 M—Saw only, $55.00, Cash $46.95

CARTRDGR TABLE EXTENSIONS. For B. 6 x 17 in. each. Ship. wt. 15 lbs. Mountable.

94 WT 3307 M—Extensions only...Pair $11.95

SAW WITH TABLE EXTENSIONS AND 1/2-HP Motor. (93 WT 4541 M, Page 20), Wt. 98 lbs.

94 WT 3321 B—$8 Down...Cash $82.50

TILTING ARBOR BENCH SAW SPECIFICATIONS

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
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<tbody>
<tr>
<td>Depth of Cut</td>
<td>2 1/4 in.</td>
<td>2 1/4 in.</td>
<td>2 1/4 in.</td>
<td>2 1/4 in.</td>
</tr>
<tr>
<td>Vertical Depth of Cut at 45°</td>
<td>3 1/4 in.</td>
<td>3 1/4 in.</td>
<td>3 1/4 in.</td>
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</tr>
<tr>
<td>Main Table Dimensions</td>
<td>1 1/4 x 1 1/2 x 1 in.</td>
<td>1 1/4 x 1 1/2 x 1 in.</td>
<td>1 1/4 x 1 1/2 x 1 in.</td>
<td>1 1/4 x 1 1/2 x 1 in.</td>
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<tr>
<td>Rip Fence</td>
<td>28 x 17 in.</td>
<td>28 x 17 in.</td>
<td>28 x 17 in.</td>
<td>28 x 17 in.</td>
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<tr>
<td>Dist. ahead of Blade Bearings</td>
<td>7 1/4 in.</td>
<td>7 1/4 in.</td>
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<tr>
<td>Arbor Diam.</td>
<td>5/8 in.</td>
<td>5/8 in.</td>
<td>5/8 in.</td>
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<tr>
<td>Rip Fence</td>
<td>15 x 15 in.</td>
<td>15 x 15 in.</td>
<td>15 x 15 in.</td>
<td>15 x 15 in.</td>
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<tr>
<td>Pulley Dia.</td>
<td>2 3/4 in.</td>
<td>2 3/4 in.</td>
<td>2 3/4 in.</td>
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<tr>
<td>Rev. Speed</td>
<td>3450 RPM</td>
<td>3450 RPM</td>
<td>3450 RPM</td>
<td>3450 RPM</td>
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<tr>
<td>No Extensions</td>
<td>1 1/4 in.</td>
<td>1 1/4 in.</td>
<td>1 1/4 in.</td>
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</tbody>
</table>

Bench saw accessories: Molding heads, cutters, dado heads, saw blades, Pages 6 and 7; stands, belts, pulleys on Page 8.

CHOOSE A CIRCULAR BENCH SAW...THE BASIC WOODWORKING

The bench saw fits the classification "all-round" power tool more closely than where you select a particular one. With a bench saw, you can perform more than 75% of all woodworking operations required in cabinet-making. Since it is one of the most useful, it is probably the first power tool you will want to buy.

In its use, it is to rip and crosscut lumber to size, but it also may be adapted to bevel, chamfer, taper, rabbet, miter, groove, shape, dado, sand and to make mortise and other joints. Four common operations are shown at left.

There are two kinds of bench saws—tilting arbor and tilting table types. On a tilting arbor saw, the table top and work always remains in horizontal position while blade and arbor tilt. This allows, when using crosscut, bevel or miter cuts, on a tilting arbor bench saw, it is easier and faster. However, tilting table saws are equally good for the straight cuts which represent the majority of sawing operations.

The named size of any circular saw is based on the diameter of the saw blade which it will swing. Sizes generally run from 8 in. up to 12 in. With the blade as high as possible, on 8-in. saw will make approximately a 2 1/4-in. cut of 10 in. saw an average of about 3 in. In choosing a size of course, it is important to buy as large a diameter saw as your means permit—as in all probability you will use this tool more often than any other. 10 and 12-in. saws are available usually as floor models, rather than bench models.

Other than size, a choice must be made on the basis of refinements built into the better saws. None saws having more precise adjustments for changing the height and angle of blade in the table, and for positioning the fence and miter gauge, have greater accuracy and will produce better quality work. A very important feature in bench saws is the type of arbor bearings. Generally, saws classified as light duty are equipped with bronze bearings; medium and heavy-duty saws have dependable grease-sealed bearings (continued on next page)

Copyright 1954 by Montgomery Ward & Co., Inc.
Beaver Tilting Arbor and Tilting Table Circular Bench Saws

POWER-KRAFT HEAVY-DUTY SAW 79.95

8-in. Tilting Arbor Model. Easily meets the rigid requirements of production woodworking shops or most exacting hobbyists. Massive heavy-duty construction gives professional performance and exceptional accuracy on every job. Runs quietly and smoothly on ball bearings, grease sealed for protection against dust and dirt. Has two separate operating controls for precision work—one raises and lowers blade, other tilts arbor with 8-in. blade, simultaneously moving motor along saw base. Tilting arbor construction makes bevel cutting easier, faster. Motor mount is part of saw base, not fastened to bench or stand. Extra rigid construction with cast semi-steel table top and solid extensions. Heavy cast-iron base withstands working parts, gives firm, solid support for heavy duty use. Size overall 3½x414x16½ in. Gray wrinkle finish. See complete specifications on opposite page.


54 W2475-R—Saw complete with extensions. $3 Down. ………. Cash $79.95

SAW COMPLETE WITH TABLE EXTENSIONS AND ½ HP BALL BEARING CAPACITOR MOTOR (93 W2 4514M, Page 20) and 35-in. "V" belt. Not Maublie. Ship. wt. 120 lbs. $10.30 Down. ………. Cash $30.95

HEAVY-DUTY BEAVER PRODUCTION MODEL SAW 109.80

8-in. Tilting Arbor Model. Designed and constructed to meet the most exacting demand of the skilled workmen—we believe there is no other bench saw in this price range to match this saw in quality and accuracy. Will absorb plenty of punishment and still maintain high operating efficiency and extreme accuracy. Alloy steel spindle mounted on grease-sealed SKF ball bearings. Two handwheel controls—one raises and lowers blade, other tilts blade and arbor. Table is one-piece rib-reinforced semi-steel casting. Full 12-in. rip cut on either side of blade. Aluminum insert removable for dadoing. Arbor center lines on cast semi-steel machined trunnion attached to underside of table. Bracket fits demountable motor base so motor and arbor swing at same time. Semi-steel rip fence, ground smooth on both sides for use on either side of blade; lever clamp locks both ends at once. Miter gauge graduated to 60° in both directions; has extension stop rods for duplicating cuts. 12-in. miter gauge guide bar. See specifications on opposite page.


54 W2294-R—Not Maublie. Ship. wt. 142 lbs. $11 Down. ………. Cash $109.50

½ HP BALL BEARING CAPACITOR MOTOR. For saw (D) above. See Page 20.

54 W2 4514M—Maublie. Ship. wt. 28 lbs. $3 Down. ………. Cash $36.00

TOOL IN MOST SHOPS

8-INC Power-Kraft Medium-Duty Tilting Table Bench Saw 33.95

(front, from opposite page) ball bearings for smoother, quieter operation and longer life. Your choice of models will depend on the amount and type of work to be performed. Keep in mind that a ball bearing saw will last longer and give better service than a bronze bearing saw.

Here are 10 important safety rules to observe when operating a bench saw: (1) Keep the saw in perfect working order; blades sharp, perfectly set. (2) Leave no tools or other materials on saw table; (3) Keep floor around saw free from scraps, hurries; (4) Check setup of saw carefully before turning on power; don't make adjustments while saw is running; (5) Keep your eyes on job—be alert. Use guards and other safety devices; (7) Roll sleeves above elbows; never wear gloves or tie; (8) Stock must lie flat on table; must have a true edge to be held against fence or miter gauge; (9) Saw blade should not project more than ¾-in. above stock being cut; (10) Stand slightly to left of saw blade, never in line with it; use a push stick when cutting against the fence.

Big capacity tilting table saw. 8-in. blade gives extra working capacity. Saws to depths of 2½-in. at vertical; 1½-in. at 45°. Blade raises or lowers by hand knobs. 2-piece—diam. Arbor has self-lubricating bronze bearings.

10x14-in. main table with extension 26½-in. tilts on smooth-riding trunnions. Insert removable for dado work. Miter gauge adjusts to RIP, right or left, extension stop bars allow duplicate cuts of same length. Rip fence leaves on front guides only. Construction highly built. Overall 26x20½x13½ in. Overall 26x20½x13½ in.


SAW WITH ½ HP BALL BEARING CAPACITOR MOTOR. (54 W2 5541M, Page 20) 44-in. "V" belt 4-in. motor pulley. Ship. wt. 79 lbs. W2 5450Y—$4 Down. ………. Cash $35.50
Big Capacity Floor Model, Swing and Radial Saws

**BEAVER 10-IN. TILTING ARBOR FLOOR SAW**

**Power-Kraft Floo...**

**POWER-KRAFT SWING SAW 99.50**

**POWER-KRAFT BALL BEARING RADIAL SAW 264.95**

**SHIPPING NOTICE**

**SAW STAND 13.65**

**4 WARD SAW MILL**

---

10-IN. PRODUCTION MODEL. Will rip, mill, groove, shear, dado, cut fourths, double miters, angle rip and dado. Blade, ball bearing arbor and motor tilt up to 45° as a single unit on cast-iron trunnions—table remains level. Hand wheels control depth of cut and tilt. Bracket to fit 1/2 to 2-H.P. motors. Miter gauge adjusts to 60°, face square at 90° and 45°. With combination crosscut-rip-miter blade. Height to table 341/4 in. See "Shipping Notice" at bottom of page.

10-IN. Miter, Cuts to depth of 271/2 in. vertically, to 241/2 in. at 45°. Cast iron main table 20 x 27 in. with extensions 32 x 27 in. Table extends 121/2 in. in front of blade. 1/2-in. arbor, 24-in. "V" saw pulley, 21/2-in. motor pulley and 41/4-in. "V" belt. Light weight cast-aluminum removable table and blade guard. Strong rigid tubular steel column. Wood work table mounted on steel base. Work table 341/4 x 111/4 x 11/2-in. steel base size 183/4 x 211/2-in. Height 451/2-in. Use 6, 8, or 10 in. by 63/4-in. dado blade heads listed on Page 9. Shaper heads and knives also listed on Page 9. See "Shipping Notice" at bottom of page.

16-IN. PRODUCTION MODEL. For contractors, carpenters, lumberyards, etc. For saw mill, mitring, grooving, ripping, dadoing. Shaping possible in vertical position. New Decaturite grease-sealed ball bearings. Easy to operate. Pull saw forward to cut...spring action returns it to original position. Maximum depth of cut 2 x 12-in. Index grooved at 45° right and left and 90° rip positions. Positive lock holds firmly.

Vertical depth adjustable to 4-in. by screw handle at top of saw. 3-in. arbor on new Decaturite ball bearings. 10-in. combination crosscut-rip-miter blade, 24-in. saw pulley, 21/2-in. motor pulley (6-in. bore) and 4-in. "V" belt. Lightweight cast-aluminum removable table and blade guard. Strong rigid tubular steel column. Wood work table mounted on steel base. Work table 341/4 x 111/4 x 11/2-in. steel base size 183/4 x 211/2-in. Height 451/2-in. Use 6, 8, or 10 in. by 63/4-in. dado blade heads listed on Page 9. Shaper heads and knives also listed on Page 9. See "Shipping Notice" at bottom of page.

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Accessories to Make Your Bench Saw More Useful

**MOLDING CUTTER HEADS AND KNIVES 3.75 to 9.50**

1. Convert your circular saw or Shapemill into a shaper with a molding cutter head. Produce and shape an infinite number of molding designs by combining cuts of two or more sets of knives. Each cutter head holds sets of three knives of same shape (order separately below).

     84 WT 2287—Use with knives 84 WT 3104 below. Ship wt. 3 lbs.,...$5.45

   84 WT 3103—Use with knives 84 WT 3104 below. Mailed Postpaid...$5.75

   84 WT 2288 K—Use with knives 84 WT 2289 K below. Ship wt. 4 lbs.,...$9.50

**MOLDING CUTTER HEAD KNIVES**. Tempered, hardened high-speed steel. Correct angle for true shaving cut. Several sets can cut an unlimited variety of shapes. Each set has 3 blades of one shape.

**SHAPEMILL MOLDING CUTTER KNIVES**. Fits Power-Kraft and Shapemill heads (1) and (2) and former No. 84-2288. Knives are 3 3/4-in. diam., 1-in. wide (except Profile R is 1/2-in. wide). Mailed Postpaid from Stock.

**PARLÉ MOLDING CUTTER KNIVES**. Fits Parlec head (3) and former No. 84-2270. All knives are 4 3/4-in. thick, 1-in. wide (except Profile R is 1/2-in. wide). Ship wt. set, 6 oz. Mailed promptly from Los Angeles, California Factory.

**State Catalog Number and Profile Letter wanted**.

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<tr>
<th>Profile Letter</th>
<th>Fit Shapemill and Power-Kraft Heads</th>
<th>Price</th>
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</thead>
<tbody>
<tr>
<td>A</td>
<td>Blank Square Knives</td>
<td>$5.75</td>
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<tr>
<td>B</td>
<td>1/2-in. 1/2-in. Groove Revolved</td>
<td>$5.75</td>
</tr>
<tr>
<td>C</td>
<td>Glow(beard)</td>
<td>$4.95</td>
</tr>
<tr>
<td>D</td>
<td>Cabinet Door Lip</td>
<td>$4.95</td>
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<td>E</td>
<td>V-flute Molding</td>
<td>$4.95</td>
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<tr>
<td>F</td>
<td>Groove</td>
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<td>Tongue</td>
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<td>4-saw Molding</td>
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<td>O.G. Molding</td>
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<td>J</td>
<td>O.G. Molding</td>
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<td>Reverse O.G.</td>
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<td>M</td>
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<td>N</td>
<td>Panel Insert</td>
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<td>3/4-in. 3/4-in. Side</td>
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<tr>
<td>P</td>
<td>1/2-in. 1/2-in. Side</td>
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<tr>
<td>Q</td>
<td>Bead, Cove Molding</td>
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</table>

**DADO HEAD ASSEMBLIES 2.85 to 28.95**

1. Make your bench saw more versatile—use dado heads for dadoing, grooving, notching, etc. Cuts can be varied in width and depth.

   - **(4) HORSYER'S QUALITY**. Made of stamped steel. Sets include two outside blades and six 1/8-in. thick chippers. *Shape, diameter and bore sizes.*
     
     **Cat. No.** | **Diam.** | **Bore in.** | **Blade Thick.** | **Ship wt.** | **Price**  
     84 WT 2282  | 5 in. | 1/2-in. | 1/8-in. | 3 lbs., 8 oz. | $22.65  
     84 WT 2288  | 5 in. | 1/2-in. | 1/8-in. | 6 lbs. | $22.95  
     84 WT 2268  | 5 in. | 1/2-in. | 1/8-in. | 9 lbs. | $22.95  

2. **(5) PROFESSIONAL QUALITY**. Precision ground, tempered alloy tool steel. Set includes: two outside blades 1/8-in. thick, two chippers (one 1/8-in., one 1/4-in. thick). 8 and 10-inch diameter Mailed promptly from Factory in Buffalo, N.Y.; you pay postage from there. 6-inch diameter Mailed from Stock, State Catalog Number, diameter and bore size wanted.

   - **Cat. No.** | **Diam.** | **Bore in.** | **Ship wt.** | **Price**  
     84 WT 2258  | 6 in. | 1/2-in. | 3 lbs., 8 oz. | $7.95  
     84 WT 2268  | 8 in. | 1/2-in. | 6 lbs. | $22.95  
     84 WT 2288  | 10 in. | 1/2-in. | 9 lbs. | $22.95  

**MAGNA DADO—ONE-PIECE PRECISION UNIT 14.95**

For faster, more accurate dadoing. Wobble type. A complete one-piece unit for groove, dadoing, notching, rabbeting, tenoning, crosscutting or ripping. No blades and chippers to assemble—no shimming necessary to obtain the exact width of cut desired. Extremely easy to operate. Only one quick adjustment with Allen wrench and calibrated dial. Gear synchronized hub control blade for any width of cut from 0 to 3 in. and up to 3 inches deep. “Whipping” action eliminated by heavy 8-inch diameter 1/8-in. thick blade with special tool design.

Magna Dado is also excellent for straight crosscut. Can be used as a rip or crosscut blade. Fits most bench saws with 3/4- or 1 1/4-inch diameter arbor. See cross-section view at right.

84 WT 3300—Mailed Postpaid...$14.95

**ACCESSORIES FOR BENCH SAW 2.95 to 8.50**

1. **ADJUSTABLE ANGLE JIG**. Set to cut angles and tapers from 1 to 21'. Higher angles possible by moving adjusting clamps. Hardwood construction. Fits any saw equipped with a rip fence.
   84 WT 2275—Shipping weight 1 lb. 8 oz...$2.95

2. **ON-OFF SWITCH AND CORD SET**. For bench and floor model saws. Consists of 4 feet of No. 12 rubber-covered cord—skinned 3 inches with 3/8-inch cycle attached to all connections and attached to knife arbor. 0-feet rubber covered cord and plug with 4-inch ground lead with ground jack skinned 3 inches. For motors up to 2 HP, 110 to 500 volts, AC-DC. UL Approved. Shipped promptly from Factory in Los Angeles; you pay postage from there.
   84 WT 2288K—Shipping weight 2 lbs. 4 oz...$7.50

3. **DOT SWITCH**. Maintained contact type—press to start, press to stop. Light pressure from foot operates switch—leaves both hands free for work. Switch may also be mounted on side of bench or wall and operated by slight pressure from knee. Ideal for starting and stopping motors up to 1 HP. Used with power hitches, hoists, photographic, radio, motion control, transducers, ultrasonic, vibrations machines, punch presses, etc. Switch is fully enclosed and hooded for protection against dust and chips. Black molded-enameled finish. Size overall 6 1/4 in. long, 5 1/2-in wide, 3/4-in deep. Double pole single throw 20-amp, 110-220-240 volts AC-DC. Shipped promptly from Factory near Hartford, Connecticut. Pay postage from there. Order cord separately; see Forge 29,
   84 WT 26850K—Mailable. Ship wt. 5 lbs...$8.50

6 WARDS SAWP
Fast-Cutting Saw Blades For Every Purpose

CARBIDE TIPPED SAW BLADES 8.50 to 22.50

Special high-grade alloy blades with tungsten carbide tips silver-brazed to blade and finish-ground with diamond wheel to exact tolerances for faster, smoother, more efficient cutting. Use less power than ordinary blades and generates less heat. Ward Master Quality lasts up to 25 times longer than ordinary blades before resharpening. Professional Quality lasts up to 10 times longer. Gives substantial saving in sharpening costs. Cuts hardwood, broadleaf, Furniture, plastics, roofing, siding, etc. Engineered for long-life cutting.

(10) 94 WT 6965L — Ward Master Quality, Size diam.
(11) 94 WT 6966L — Professional Quality, Size diam.

S-SHOT SAFETY SAW BLADES 1.45 to 3.59

Combination rip-crosstcut blade, made of electric furnace chrome alloy steel. For faster than ordinary blades because of its "out-control" principle. Teeth project only about 0.012 inch above noncutting edge. 0.030 inch on 10 and 12-inch sizes. Reduces motor causes of saw accidents. Teeth cannot grab wood and throw it back at operator. Non-cutting edge acts as effective stop to stops and limits their depth. Efficient tooth construction means less wasted power, longer tool life. Cuts chips, not sawdust—easier to clean, reduces fire hazard. Has longer life between sharpenings. Gives smoother cut and quieter, more efficient operation. Size diameters.

HINTS ON PROPER CARE OF SAW BLADES

To be sure that you will get the most out of your bench saw, blades should be given proper care to prevent rusting. Circular saw blades, dado heads, shaper heads, etc., should be cleaned thoroughly and then given a complete coating of thin oil before they are removed from the machine for storage. It is best to wrap them in oiled waxed paper for complete protection against rust.

If your workshop is damp, the air can be dried by using calcium chloride or moisture-absorbing chemicals in a wire mesh container.

Blades must be kept sharp and clean. Dull blades offer cutting resistance and may burn out your motor. A properly sharpened blade provides faster, smoother, more efficient cutting and uses less power than a dull blade. Remember that a sharp blade makes your saw safer to operate.

Always keep an extra blade on hand so time won't be lost while blade is being sharpened.

CIRCULAR SAW SET AND MANDRELS

CIRCULAR SAW SET. Saws teeth properly on circular saws for different cutting purposes. Holds blades securely. Takes blades up to 10 in. Instructions included.

94 WT 4036—Ship wt. 1 lb. 2 oz. $2.19


94 WT 7001L — State diameter wanted.

Diam. 1/4 in. threaded 4/4 in. Ship wt. 4 lbs. $4.15

Diam. 3/4 in. threaded 1/4 in. Ship wt. 5 lbs. 4.39


94 WT 7005 — State diameter wanted.

Shaft diam. 1/4 in. Ship wt. 5 lbs. $5.59

Shaft diam. 3/4 in. Ship wt. 5 lbs. 5.95

Shaft diam. 3/4 in. Ship wt. 8 lbs. 8.45
Selecting The Correct Jointer-Planer For Your Needs

The jointer-planer is essential to accurate craftsmanship and is a "must" for the man concentrating on furniture making, cabinet work, remodeling and construction. No other tool can approach it for producing absolutely straight and parallel edges and surfaces. It does in a few seconds what formerly took hours with a hand plane, assuring a straight and true starting edge, necessary for making accurate miter or other cuts. It is also used extensively for squaring up stock to dimensions.

Your selection of a jointer-planer will be guided by its capacity, or width of the cutting knife. If the majority of your work will be edge jointing or rabbing, a 4 to 6-inch size is adequate. For much surface planning the 6-inch size is recommended. (For big capacity production-type surounding, thickness planers are available, see next page.) Light duty jointer-planers with bronze bearings are satisfactory for many home workshop uses, but ball or roller bearings are necessary to stand up under the punishment of heavy-duty or constant production type work.

Important Features of a Good Jointer-Planer. The cutter head is the heart of the jointer. Precision machining and absolutely perfect balancing are necessary in this unit, revolving at an operating speed of about 3600 to 4600 RPM. The blades must be specially built of tempered, heat-treated steel to withstand this high-speed use and still retain a sharp cutting edge. Depth of cut is regulated by raising or lowering the infeed table. Continuous, accurate operating controls and a gauge to indicate depth of cut are necessary. The fence must be rigidly supported to provide firm surface for guiding work over the cutting head. The fence moves back or forward over the table to determine width of cut. It also should have adjustments for tilting for making miter cuts. The outfeed table is not normally needed, however, if it is adjustable it permits alignment to compensate for blade wear.

Uses of the Jointer-Planer. Six principal uses are pictured in view of top of this column. For edge jointing (1), care should be taken that fence is set at an exact 90° angle to table, for finishing operations no more than a shaving cut should be taken off in one pass over cutter head. For end jointing (2), make two separate cuts, one from each side, going about half way through in order to prevent splitting of wood. Beveling (3), is done by tilting the fence to desired angle, then pushing wood over cutter head in regular manner; fences on many jointers can be tilted in either direction. Surfacing of boards (4), is done to eliminate warp in lumber prior to performing other operations. Make as many passes over cutter head as are necessary to obtain a flat, straight surface. Rabbing (5), is done by moving fence to edge of table to obtain desired width of rabbet or groove. Make as many cuts as necessary to obtain depth of cut wanted. Tapering (6), is done by lowering the infeed table and advancing wood across cutter head.

Thickness Planer. These production type tools have big capacity for surfacing stock, and at the same time reducing lumber to the desired thickness. Capacity of planers is the size of the widest stock that can be handled. Depth of cut is regulated by hand wheels which raise and lower work table.

Most workshop models have corrugated iron rollers to pull in lumber, and rubber-covered cuttered rollers to protect the finished surface.

POW'R-KRAFT and Beaver

Light and Medium-Duty Jointer-Planers 43.50 and 63.50

All Pow'r-Kraft Jointer-Planers, including (A) and (B) below and (G) on opposite page, have precision made 3-blade cutter heads with chip breakers, dynamically balanced after knives are installed for accuracy. Knives are high-speed tool steel, carefully sharpened and heat treated to maintain keen edge over long periods. Infeed and outfeed tables are precision machined and ground in pairs after assembly to insure perfect alignment. Infeed tables have ribbeding arms, outfeed tables have ribbeding ledge. Fences tilt to 45° in either direction. Gauges show degree of tilt and depth of cut. Detachable spring guards are mounted over cutter heads.

POW'R-KRAFT 4½-IN. BRONZE BEARING MODEL. For light duty use. Has all precision Pow'r-Kraft features above. Cutter head runs on extra long, self-lubricating bronze bearings. Maximum depth of cut and rabbet is 1/4 in. Sturdy cast-iron table and base. Complete specifications below.

84 WT 2505M—Movable, Ship. wt. 45 lbs. $4.50 Down... $43.50

POW'R-KRAFT 5-IN. BALL BEARING MODEL. For medium duty workshop use. Runs smoothly on grease-sealed New Departure ball bearings. Has all precision Pow'r-Kraft features described above. Maximum depth of cut and rabbet is 3/8 in. Heavy cast-iron base table and base. Easy operating ball crank and lever lock controls. See complete specifications below.

84 WT 2305M—Movable, Ship. wt. 56 lbs. $5.50 Down... $55.50

84 WT 2507M—Jointer above with 1/2 HP motor (83 WT 4507 M, Page 20), 4-in. V motor pulley, 4-in. V belt. Ship. wt. 74 lbs. $6.50 Down...$65.75

JOINTER KNIFE GAUGE. For accurate installation of jointer knives.

84 WT 2513—Use with (G) above and (D) on opp. page. Ship. wt. 14 oz. $4.50

84 WT 2513

JOINTER-PLANER SPECIFICATIONS

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Weight</th>
<th>Pulley</th>
<th>Belt</th>
<th>RPM</th>
</tr>
</thead>
<tbody>
<tr>
<td>6872001M</td>
<td>68W72001M</td>
<td>1/2 HP</td>
<td>4-in.</td>
<td>115 V</td>
<td>3450</td>
</tr>
<tr>
<td>6872002M</td>
<td>68W72002M</td>
<td>1/2 HP</td>
<td>4-in.</td>
<td>115 V</td>
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<td>1/2 HP</td>
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<td>115 V</td>
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</tr>
</tbody>
</table>

**JOINTER PLANERS**

84 WT 2505M

POW'R-KRAFT 4¼-IN. BRONZE BEARING MODEL. For light duty use. Has all precision Pow'r-Kraft features above. Cutter head runs on extra long, self-lubricating bronze bearings. Maximum depth of cut and rabbet is 1/4 in. Sturdy cast-iron table and base. Complete specifications below.

84 WT 2505M—Movable, Ship. wt. 45 lbs. $4.50 Down... $43.50

POW'R-KRAFT 5-IN. BALL BEARING MODEL. For medium duty workshop use. Runs smoothly on grease-sealed New Departure ball bearings. Has all precision Pow'r-Kraft features described above. Maximum depth of cut and rabbet is 3/8 in. Heavy cast-iron base table and base. Easy operating ball crank and lever lock controls. See complete specifications below.

84 WT 2305M—Movable, Ship. wt. 56 lbs. $5.50 Down... $55.50

84 WT 2507M—Jointer above with 1/2 HP motor (83 WT 4507 M, Page 20), 4-in. V motor pulley, 4-in. V belt. Ship. wt. 74 lbs. $6.50 Down...$65.75

**JOINTER-PLANER SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Description</th>
<th>Weight</th>
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<td>1/2 HP</td>
<td>4-in.</td>
<td>115 V</td>
<td>3450</td>
</tr>
<tr>
<td>6872003M</td>
<td>68W72003M</td>
<td>1/2 HP</td>
<td>4-in.</td>
<td>115 V</td>
<td>3450</td>
</tr>
</tbody>
</table>

**JOINTER PLANERS**

84 WT 2505M

POW'R-KRAFT 4¼-IN. BRONZE BEARING MODEL. For light duty use. Has all precision Pow'r-Kraft features above. Cutter head runs on extra long, self-lubricating bronze bearings. Maximum depth of cut and rabbet is 1/4 in. Sturdy cast-iron table and base. Complete specifications below.

84 WT 2505M—Movable, Ship. wt. 45 lbs. $4.50 Down... $43.50

POW'R-KRAFT 5-IN. BALL BEARING MODEL. For medium duty workshop use. Runs smoothly on grease-sealed New Departure ball bearings. Has all precision Pow'r-Kraft features described above. Maximum depth of cut and rabbet is 3/8 in. Heavy cast-iron base table and base. Easy operating ball crank and lever lock controls. See complete specifications below.

84 WT 2305M—Movable, Ship. wt. 56 lbs. $5.50 Down... $55.50

84 WT 2507M—Jointer above with 1/2 HP motor (83 WT 4507 M, Page 20), 4-in. V motor pulley, 4-in. V belt. Ship. wt. 74 lbs. $6.50 Down...$65.75

**JOINTER-PLANER SPECIFICATIONS**

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<tr>
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<td>1/2 HP</td>
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<td>115 V</td>
<td>3450</td>
</tr>
</tbody>
</table>
JOINTER-PLANERS ... Big Capacity "K"-Line Thickness Planers

HEAVY-DUTY JOINTER-PLANERS 99.50 and 134.95

D POW-KRAFT 6-INCH BALL BEARING MODEL. Heavy-duty production type tool for industrial shops, cabinet makers, advanced woodworkers, etc. Has all precision Pow-Kraft features described immediately at left on opposite page. Rums smoothly, with no vibration on grease-packed New Departure ball bearings. Maximum depth of cut and rabing is 3/4 in. See complete specifications on opposite page. Hold-down attachment not included, see (B) below. Not Movable. 84 WT 2508 K—Ship wt. 113 lbs. $10 Down ... Cash $99.50

84 WT 2509 R—Add one 1/4 hp motor (03 WT 49-41) on page 29. 5-in. motor pulley, 46-in. V-belt. Ship wt. 146 lbs. $12.50 Down; Cash $124.50

G JOINTER HOLD-DOWN, Flts (D) only. Mechanically duplicates skillful touch of the professional. Spring-loaded roller exerts continuous, sensitive pressure. Rubber rollers guide stock. One man can plane or joint lumber up to 18 ft. long. Capacity 5/8 in. vertical; full table width horizontal. Set below table level when not in use. Shipped promptly from Factory in Chicago, Ill. 84 WT 2510 K—Movable. Ship wt. 31 lbs. $5 Down ... Cash $59.50

F PRESSURE GUARD. Fits jointer (C) only. Use with (E) above. Roller gives constant side pressure. Tension spring adjusts to 5 different pressure positions. Shipped promptly from Chicago Factory. 84 WT 2524 K—Movable. Ship wt. 6 lbs. $5 Down ... Cash $59.50

B BEAVER HEAVY-DUTY 6-INCH JOINTER-PLANER. Big capacity professional quality tool, designed and built to meet exacting requirements of skilled cabinet and production shops. Runs smoothly on Timken roller bearings of heavy adjustable trunnions. Cutter head and pulley machined in one piece from solid steel bar stock with 3 slots for alloy steel cutter knives. Maximum depth of cut and rabing is 3/4 in. Table adjusts to working height by hand knobs. Machined cast semi-sharpe fence; fits to 3/8 in. on double trunnions, locks rigidly at any angle. Accurate scale indicates degrees of tilt. Cast aluminum front and rear blade guides. Inside end of blade is parallel to knife. Center for cutting width. Heavy cast semi-sharpe base. Precision-ground bottom surface ensures level setup. Can be driven from below or behind. See complete specifications on opposite page. Shipped promptly from Detroit Factory, you pay freight from there. 84 WT 2518 K—Ship wt. 185 lbs. $15 Down ... Cash $134.95

83 WT 4541 M—1/2 HP motor. (See page 20) Ship wt. 28 lbs. ... $28.00

TABLE EXTENSION ROLLERS. Attach under table on Jointer-Planer (C) in holes provided. Gives 20 in. more table working area. Mailed promptly from Detroit Factory, you pay postage from there. 84 WT 2517 K—Movable. Shipping weight 13 lbs. ... $11.25

"K"-LINE BALL BEARING THICKNESS PLANERS 159.00 and 235.00

Heavy-duty production models, built for big capacity jobs. Exceptionally accurate—hold flat to within .01 in. Minimum thickness 5/8 in., maximum depth of cut 3/4 in. Minimum stock length 40 in. Power feed rate 6 ft. per minute. Cutter head fitted with 3 Hi-Carbon, Hi-Chrome steel blades—runs on New Departure ball bearings. Machine surfaces ensure correct balance. Cutter speed 3600 RPM. Knives cut 100 times per inch of travel. With all pulleys, V-belts. All thickness planers and stands are shipped promptly from Freight or Truck from Factory in Toledo, Ohio.

12¼-INCH HEAVY-DUTY PRODUCTION MODEL. Power feed drive only. Handles lumber to 4x10/16 in. Crosswise to uniform thickness. Infeed rolls of solid bar stock with ground bearing surfaces. Outside straight end delivers ample driving power with minimum amount of jamming of roller. Outfeed rolls covered with neoprene rubber. Adjustable compression spring tension. Chip breaker keeps chips from operating side of planer. Table 12¼x20 in. of semi-steel gray iron castings—polished bronze. Hand wheel advances table 1/8 in. per revolution through twin self-locking worm and worm wheels of bronze and steel. Micrometer adjustment. 84 WT 2024 K—Size overall 22x28x18 in. Ship wt. 195 lbs. $33.50 Down ... Cash $33.50

MOTOR FOR ABOVE 11/4 HP ball bearing Repulsion-Induction. 1725 RPM. WT 4041 R—Ship wt. 10 lbs. $93.50 Down ... Cash $93.50

18-GAUGE STEEL STAND. Fits planer (J) above. Size overall 20x4x26x29 in. 84 WT 2523 P—Ship wt. 62 lbs. Not Movable. $45.00 Down ... Cash $45.00

10-IN. HEAVY-DUTY PRODUCTION MODEL. Combination power and hand crank feed. Hand crank prevents feeding crooked, warped, or misshapen lumber. Handles lumber to 2/4 in. thick by 10 in. wide. Infeed rolls of bar steel, corrugated. Adjustable feed roller pressure. Table 11x14 in. Hand wheel moves table 1/2 ip, in per wheel revolution. Gauge for measuring cut depth. Size overall 18x12x12 in. Order motor and stand separately below. Ship wt. 132 lbs. $66 Down. 84 WT 2518 F—Cash $159.00

MOTOR FOR ABOVE 15 HP sleeve bearing, 1725 RPM. Repulsion-induction. 63 WT 4812 F—Ship wt. 51 lbs. From stock. $52.00

W SHEET METAL STAND. For planer (J). Not Movable. Ship wt. 90 lbs. 84 WT 2522 F—Cash $35.00

www.OzarkToolManuals.com
The Jig Saw
For Inside or Outside Curved Cutting

The jig-saw is the most satisfactory of all tools for cutting intricate designs. It is often one of the lowest priced power tools to purchase and one of the easiest of all to operate. Ideal for the beginner in woodworking, or for starting children in the hobby. Does finer, smoother work than the bandsaw—but is slower and not as satisfactory for making long straight cuts.

Many types of blades are available including metal, plastic-cutting, and other special-purpose blades. Some of these are shown on Pages 11 and 37.

Capacity is based on the distance from the saw blade to the opposite point on the saw arm. This determines width of stock your saw will take. For example, a 15-in. jig-saw will cut to the center of a panel 30-in. wide. Popular workshop sizes are: 8 to 12½-in. (small), 15-in. (medium), and 9 to 26-in. (large). Remember, you'll never regret choosing a large capacity saw—big enough for any future projects you may undertake.

PUTTING THE JIG-SA.W TO WORK. Pictures above illustrate six types of work that jig-saws will do. (1) Inside curve cutting—drill hole in stock at starting point. Insert blade, lower blade guide and hold-down to prevent lifting of stock. (2) Outside cutting—just lower blade guide and hold-down against stock. (3) Angle cutting up to 45° (can be done with most models)—tilt table to desired angle and lower blade guide and hold-down. (4) Multiple cutting—use clamps or tacks to hold stock tightly as one unit. Raise blade guide and hold-down to insert stock—remember no chucks. (5) Hinging long stock can be done on models with adjustable chucks—rotate to 90°. Not fast but does the job. (6) Metal cutting with special blade—efficient on lower speeds only. Other jig-saw operations include saber-sawing, filing and sanding.

JIG SAWS ARE AVAILABLE IN THREE MAIN TYPES, according to principle of operation: "V" Belt-Driven, Built-in Rotary Motor and Magnetic Vibrator types are among the latest, proven jig-saw designs in use.

"V" BELT-DRIVEN. Jig-saws are powered by externally mounted electric motor, connected to the saw by means of belt and pulley. Power is transmitted to the blades through an eccentric system, such as a cam or crankshaft. Spring in upper arm of saw maintains constant blade tension. Gives best cutting at speeds from 800 to 1000 strokes per minute. To find the number of strokes per minute using 1725 RPM motor, multiply RPM by diameter of motor pulley and divide by diameter of jig-saw pulley. These jig-saws are recommended for use by critical hobbyists, skilled craftsmen.

BUILT-IN ROTARY MOTOR types are operated directly from drive shaft of motor—no pulleys or belts are needed. Rotary movement of motor is converted to up and down motion through an eccentric cam or crankshaft arrangement. Jig-saws with these rotary type motors operate with maximum efficiency at speeds producing about 1000 to 3000 strokes per minute. Recommended for both craftsmen and workshop hobbyists.

MAGNETIC-VIBRATOR type jig-saws completely eliminate electric motors and drive systems. In place of motors, a self-contained magnetic power unit delivers power to the saw blades through a diaphragm. Requires higher speed (about 7200 strokes per min.) to produce adequate cutting power. Economical, easy to operate. Ideal for beginners and light work.

Fast Cutting, Self-Powered

DREMEL MAGNETIC HAND COPING-SAW, 9½-in., capacity—cuts to center of 10-in.IRCLE. Very good model for beginners, model-made hobbyists, Spring action. Magnetic vibrator power—produces about 7200 strokes per minute. Cuts up to 9½-in. stock many times faster than ordinary hand coping saw. Four way blade holder lets you reverse or turn blade at right angles for unlimited lengths of work. Stroke adjusts from 0° to 90°. Operates on 110-120 Volt, 60 cycle AC only. Complete with rubber-covered cord and plug. 84 WTP 2398—Complete with 3 blades. Postpaid.......................$6.85
84 WTP 2399—3-in. Pin-End Blades for above. Postpaid..........................$2.50

NEW DREMEL ROTARY JIG-SA.W, 6-in., capacity—cuts to center of 18-in. circle. Suits to starting the woodworking hobby. New guard design protects fingers from injury. Built-in rotary motor with Dremel "nocker-action" eliminates blade buckle and tension whip. About 3450 strokes per minute.

Cuts up to 9½-in. soft wood, ¾-in. plywood. Four way blade holder gives unlimited ripping capacity. Table tilt 45°. Rotates or lowers to utilize each tooth on blade. For 110-120 Volt, 60 cycle AC, UL Approved. Rubber covered cord, plug. For extra blades see above. Specifications on opposite page.

84 WTP 2390 M—With three 5-in. Pin-End Blades. Postpaid....................$2.50

SYNCRON MAGNETIC JIG-SA.W, 15-in., capacity—cuts to center of 30-in. circle. Ideal for starting the hobby with a fine quality jig-saw. Used by model builders, display creators, craftsmen and students. Magnetic coil provides reciprocating vibration action. Produces 7200 strokes per minute.

Cuts soft wood up to 9½ in.; thick, plywood and plastics to ½-in. "V" type upper blade guide and hold down. With adjustable steel over-arm and smooth metal table, 10-in. square. Operates on 110-120 Volt, 60 cycle AC only, UL Approved. With cord and plug, six 6-in. pin-end blades. For additional specifications and extra blades see opposite page.

84 WTP 2397 M—Mailled Postpaid.............................................$2.50

POWERAFT ROTARY JIG-SA.W, 18-in., capacity—cuts to center of 36-in. circle. Recommended for home workshop use. Built-in rotary type motor develops torque equivalent to ½ HP motor. Produces 1900 strokes per minute. Cast iron over-arm is removable for work with saber blades and jig-saw files . . . unlimited capacity for these two operations.

Cuts soft wood and other materials up to 2 in. thick. Roller type blade guide and adjustable spring hold down. Chucks take 6-in. pin-end blades or sanding sticks and files with ¼-in. shank diameter. Cast iron base and smooth table top. Table tilt 45° for angle cutting and rotates 360°.

Features: Built-in work light, sawdust blower and toggle switch. Operates on 110-120 Volt, 60 cycle AC or DC, UL Approved. Same 289425 or 25½-in. high. With rubber covered cord, plug, 6-in. pin-end blade. See additional jig-saw specifications on opposite page. Ship, wt. 50 lbs.

84 WTP 2390M—Mailled, $6.50 Down on Terms.......................Cash $64.95
84 WTP 2387—Extra 6-in. Pin-End Blade. Assembled, Wt. 5 oz. . . . 18 for 45c

10 WARD'S near
and Belt-Driven Jig-Saws . . . 8 to 24-Inch Capacity

15½-IN. POW-KRAFT JIG SAW 16.50

[Image of a 15½-IN. POW-KRAFT JIG SAW]

15-IN. POW-KRAFT JIG SAW 28.95

[Image of a 15-IN. POW-KRAFT JIG SAW]

24-IN. BEAVER JIG SAW 99.95

[Image of a 24-IN. BEAVER JIG SAW]


Complete lower mechanism enclosed in all cast construction. Eccentric cam operates on crosshead. Lower chuck takes 1/4-in. diam. shank files, sanding sticks and saber blades. V-type blade guide and adjustable hold down. Upper tension spring gives even blade stroke. Sawdust blower clears cutting line.

Dimensions overall: 24½-in. wide, 26½-in. long, 14½-in. high. Gray wrinkle finish, 5-in. plain-end blade included. For additional specifications see table below.

JIG SAW SPECIFICATION TABLE

<table>
<thead>
<tr>
<th>Saw (in.)</th>
<th>Saw (in.)</th>
<th>Saw (in.)</th>
<th>Saw (in.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blade type</td>
<td>8½-in.</td>
<td>10-in.</td>
<td>12-in.</td>
</tr>
<tr>
<td>Blade length</td>
<td>5 in.</td>
<td>6 in.</td>
<td>8 in.</td>
</tr>
<tr>
<td>Blade guides</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Table tilt</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Motor, pulley</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>Blower</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

For Tool Specifications See Page 5.

Heavy-Duty Belt Driven Model. Professional-quality tool meets requirements of critical craftsmen or production workers. Thrust depth of 24-in. . . . cuts to center of 48-in. circle, to 23-in. thick. Ball bearing crank shaft runs in beardeed oil bath. Built-in sawdust blower. Blade tension adjusts to all types of plain and blades from 3 to 7-in. length. Tension on scale.

Dimensions overall: 24½-in. wide, 29½-in. long, 19½-in. high. Gray wrinkle finish, 8-in. plain-end blade included. For additional specifications see table at left. Ship wt. 93 lbs., Mountable.

JIG SAW WITH 1/4 HP SPLIT-PHASE MOTOR 83 WT 4500M. Page 20, 38-in., "V" beltd, 2-in. diameter "V" motor pulley. 84 WT 2389Y—Ship. wt. 50 lbs., $3 Down . . . Cash $29.45

EXTRA PLAIN-END, PIN-END JIG SAW BLADES AND SABER BLADES 23¢ to 85¢


<table>
<thead>
<tr>
<th>No.</th>
<th>Use for</th>
<th>Thick.</th>
<th>Width</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>80 WT 2380</td>
<td>Light woods</td>
<td>.016 in.</td>
<td>.045 in.</td>
<td>10 for 40c</td>
</tr>
<tr>
<td>84 WT 2381</td>
<td>Hard materials</td>
<td>.016 in.</td>
<td>.045 in.</td>
<td>10 for 40c</td>
</tr>
<tr>
<td>85 WT 2382</td>
<td>General use</td>
<td>Assorted sizes</td>
<td>12 for 45c</td>
<td></td>
</tr>
<tr>
<td>86 WT 2387</td>
<td>Extraordinary</td>
<td>.003 in.</td>
<td>.016 in.</td>
<td>10 for 25c</td>
</tr>
<tr>
<td>87 WT 2386</td>
<td>Plastic</td>
<td>.017 in.</td>
<td>.045 in.</td>
<td>10 for 25c</td>
</tr>
<tr>
<td>84 WT 2387</td>
<td>Wood, etc.</td>
<td>.020 in.</td>
<td>.070 in.</td>
<td>7 for 25c</td>
</tr>
<tr>
<td>85 WT 2388</td>
<td>Metal, Wood</td>
<td>.025 in.</td>
<td>.110 in.</td>
<td>10 for 25c</td>
</tr>
<tr>
<td>84 WT 2389</td>
<td>up to 1 in.</td>
<td>.020 in.</td>
<td>.070 in.</td>
<td>15 for 25c</td>
</tr>
<tr>
<td>87 WT 2386</td>
<td>Steel sheath</td>
<td>.025 in.</td>
<td>.110 in.</td>
<td>10 for 25c</td>
</tr>
</tbody>
</table>

Extra Plain-End, Pin-End Jig-Saw Bladed Assortment of 12. Pin-Jig-Saw (C) on opposite page, Wt. 4 oz. 84 WT 2384. . . Pkg. of 12 for 49c

1/8-INCH SABER BLADES. Size .005 in., .017 in., 10 blades per inch. Ship. wt. 4 oz. 84 WT 2385. . . Pkg. of 3 for 23c

SHOP WARS 11

SEE SPECIAL PRICES FOR USE WITH NO SAWS ON PAGE 57
The Band Saw
Performs Many Intricate Sawing Operations

An especially useful tool if you have limited space or money to equip your shop. Many consider it the No. 1 tool if the majority of work will consist largely of cabinet or furniture making. The band saw's capacity and accuracy for heavy or deep cuts cannot be equaled by any other type of power saw. Wood cuts ranging in depth from a fraction of an inch to about 8 in. (on large saws) can easily be accomplished.

Points to be considered when selecting your band saw. An important consideration is its throat capacity (distance from blade to frame). Capacity is fixed by diameter of the wheels, since throat of the saw is the distance between forward vertical cutting section of the blade and protective covering which encloses rear vertical section of the blade. The capacity of the saw, therefore, is a fraction of an inch less than the diameter of the wheels. Depth of cut is distance between saw table and bottom edge of upper wheel mounting. Suggested recommendations for home workshops are 9 to 10 in. (small), 12 in. (medium) and 14 to 15 in. (large).

Important construction features. The amount of service your band saw is going to receive is an important factor governing the type of bearings required. Bronze bearings supplemented by strategically placed ball bearings will provide excellent intermittent service for the home craftsman. When work requirements increase in duration and capacity, roller or ball bearings will withstand heavy-duty or production work.

A heavy, massive cast metal frame not only withstands the pounding of heavy-duty workshop use, but also very important in keeping the blade true-running and the machine properly aligned. A tilting cast-metal table increases the variability of the saw, allowing the operator to quickly and accurately perform bevel, chamfer and other fancy cuts.

A miter gauge, rip fence and miter gauge stop rods will make many cutting operations much easier. Stock can be quickly cut to any angle with a miter gauge. Rippering cuts can be made with the use of the rip fence. The fence can be quickly adjusted so that stock can be ripped to any desired width. In some cases these accessories are included with your saw or are available as extra accessories.

Many types of band saw blades are available which greatly increase the utility of the saw. Although a single blade for general work can be used satisfactorily, there is a right blade for every specific type of work. The most important saw blade characteristic which determines what blade should be used is its width. Choose a blade for cutting the sharpest curves you will cut. Use the widest blade that will do the job. For straight cuts use widest blade.

Powr-Kraft and Beaver

Medium-Duty Band Saws 44.95 and 64.50

For hobbyists and home craftsmen, cast-iron frame with single-piece hinged cast-aluminum guard; fastens with single knob. Cast-iron table tilts to 45° on firm locking trunnion; locks at any angle; adjustable pointer indicates degree of tilt. Adjustable hardened steel blade guides above and below table; upper guide is roller type, Positive blade tension adjustment. Soft metal table insert. Gray wrinkle finish. See specifications below.

(A) 9-in. Band Saw. Rubber-tired spoke wheels. Upper wheel has tension and blade tracking control. Runs smoothly on strategically placed ball and bronze bearings. S/n over-all 11x16x22 in. high. Ship. wt. 56 lbs. Mail. 84WT2320-M $4.50 Dn.; Cash $4.95

(B) 10-in. POWR-KRAFT BAND SAW. Die-cast wheels with rubber tires, mounted on 4 anti-friction needle roller bearings. Size overall 10x14 19/32x30 in. Order motor below, belt and pulley separately from Page 8. Shipped promptly from Chicago Factory, pay postage charges from there. Ship. wt. 50 lbs. 84WT2304-K $6.50 Dn.; Cash $6.95. 1/2 HP Split-Phase Motor for (B). See Page 20 for complete description.

Band Saw Specifications

(B) 10-in. POWR-KRAFT BAND SAW. Die-cast wheels with rubber tires, mounted on 4 anti-friction needle roller bearings. Size overall 10x14 19/32x30 in. Order motor below, belt and pulley separately from Page 8. Shipped promptly from Chicago Factory, pay postage charges from there. Ship. wt. 50 lbs. 84WT2304-K $6.50 Dn.; Cash $6.95. 1/2 HP Split-Phase Motor for (B). See Page 20 for complete description.

Band Saw Specifications

For Bandsaw to Fit Band Saws, See Page 5

For Bandsaw to Fit Band Saws, See Page 5

Davidson 100% Cotton 2-ply Towels, 16 in. x 16 in. 12 Wards 2-ply Towels 100% Cotton 2-ply Towels, 16 in. x 16 in. 12 Wards
Band Saws . . . 9 to 15-Inch Capacity

**POW-R-KRAFT BAND SAWS 92.50 AND 129.95**

Heavy-duty models. Precision engineered to give accuracy and efficiency in every band saw operation. Compare most favorably with points to be considered on preceding page. Case-iron frame with one-piece hinged guard, swings open and fastens shut with single knob. Upper wheel mounting separate from main frame.

- Large case-iron table mounted on heavy double trunnions, tilted to 45°. Wheels mounted on four needle type anti-friction bearings. Concrete ball bearing solid hubs guide above and below table, rotate with blade, eliminate friction and prevent grooving. Built-in work light throws illumination directly on work, complete with bulb and cord. Gray wrinkle finish. See band saw specifications listed in table at bottom of preceding page. Shipped promptly by Freight or Truck.

- **92.50** 12-in. POW-R-KRAFT BAND SAW. Heavy-duty model. Runs smoothly on needle roller bearings. Deep throat permits cutting to center of 24-in. circle. Cuts motorized up to 5/8 in. thick. Height overall 35½ in. Ship. wt. 118 lbs. Shipped promptly from Stock. 84 WT 2314 R—$9.50 Down on Terms . . . or Cash $92.50.


- **164.06** 12-in. BEAVER BAND SAW. Heavy-duty cut-down model. Cuts to center of 24-in. circle, up to 7½ in. thick. Grease-sealed double ball bearings. Interchangeable upper, lower saw guides have adjustable tilted ball bearing thrust guide, hardened steel side guides. Cast aluminum frame. Rip fence made of cast semi-steel, 18½ in. long. 2½ in. high, can be used on both sides of blade. Both ends lock with single locking lever. Miter gauge graduated 90° with extension stop rods. 5-in. universal machine pulley, cast semi-steel, machined and balanced to act as flywheel for smoother operation. Drives from below or behind. Cast semi-steel table 15x15 in., extends 8½ in. ahead of blade. Solid metal insert. Size overall 20½ x 35½ in. Base size 16¾ x 23½ in. With 5x10½ in. saw blade, motor group, rip fence. Order motor separately below. 4-in. V-belt, motor pulley and V-belt from Page 5. Ship. wt. 123 lbs. For extra blades order from 84 WT 2231 K below. 84 WT 2234 F—$18.50 Down . . . Cash $164.06.

14-in. POW-R-KRAFT CAPACITOR MOTOR FOR ABOVE. See Page 20 for complete description.

**83 WT 4541M—Mailable. Ship. wt. 38 lbs. . . . $26.00**

- **WOODCUTTING BAND SAW BLADES.** Endless type, 3/16, 5/32, 1/4 or 5/16-in. width. 66-in. length cut from Chicago Factory. Size width, length, Wt. 6 oz. 84 WT 2330—10 in. lengths. 82½ in. whole length. 84 WT 2335 K—18-in. length . . . 87c.

- **METAL-CUTTING BAND SAW BLADES.** Endless type, 3/16-in. width. Pay postage from Detroit Factory. Mailled promptly, Wt. 2 oz. 84 WT 2322 K—60 in. $1.45; 88 in. $2.40; 78 in. $2.25; 101 in. 2.75; 104 in. 2.85.

- **BAND SAWS BLADES PER FT.** For wood. Made endless to order; add $5 for each wold. Mailed promptly from Factory near Boston, Massachusetts. Sizes which and length. 84 WT 2231 K—Ship. wt. per ft. 1 to 3 ft. 1½ in. 2.50 lb. 4 to 6 ft. 1½ in. 4 lb. 7½ in. 9 lb. 10 in. 13 lb. 13½ in. 20 lb. 15 in. 25 lb.
Facts to Aid You In Choosing a Sander or Wood Lathe

SANDERS SAVE HOURS OF TEDIOUS HAND LABOR

Sanders are extremely useful in giving your work that desirable "professional" finish and are available in a variety of types and models for shop work or portable use. The type you need will depend on the kind of work you expect to do. For all-round workshop utility use, a Bench Sander is recommended: for specialized sanding tasks in or out of the workshop, see the wide selection of portable electric Sanders described on Pages 34 and 35.

Belt or Combination Belt-Disc Types. Belt Sanders, most popular for workshop use, perform all operations of disc, sander, belt, sanding large, flat surfaces. Sizing speed is uniform—gives smooth, even results. Disc Sanders are primarily for edge sanding—using either genuine for squaring, bevelling, chamfering. Cutting speed varies across width of disc—gives fastest cutting near edge of disc. Both types operate with "V" belts from separate motors.

Two TYPICAL SANDING OPERATIONS. Sanding is an operation that should not be rushed. If you take the time to do a good job, the final result will be worth the extra effort. You'll soon discover dozens of different jobs Sanders can do effectively. Two types of the many sanding operations possible are illustrated above. (A) Compound angle sanding with Bench-Type Disc Sanders. Table and miter gauge are locked in angle wanted, both Sanders are sandwiched in one operation. (B) Curved sanding done with Disc Sanders. Sanders are locked in identical sanding operation of stock over drum end. Various grits of abrasives are available for each type Sanders. Important Notes on Sanders. In selecting a Sanders, keep in mind the horsepower of your motor required and select the proper diameter motor pulley to produce the horsepower and speed necessary to operate the Sanders at its top efficiency. A definite motor horsepower as well as motor RPM is usually recommended for each type of Sanders.

WOOD LATHE—ONE OF THE BASIC WOODWORKING TOOLS

The wood-turning lathe is a link between machine and hand tools, as it combines the art and skill of hand-tool work with the mechanical movement of the lathe. It is one of the most satisfying tools for the beginner and expert alike. The lathe can be used to perform a vast number of woodworking jobs. Although used primarily for basic wood-turning of long or short pieces between centers, its usefulness can be increased with the wide variety of accessories such as chucks, arbor, and mandrel, which are needed for holding rings and other similar projects.

The speed of any lathe should be considered in reasons a lathe, first is the distance between headstock and tailstock centers which determines the length of stock that can be handled. Second, the swing over bed which determines the diameter of work that can be handled. Most popular size lathes for home workshops are 24 to 27 in. between centers (small), 28 to 31 in. between centers (medium), and 32 to 40 in. between centers (large).

Form Typical Wood-Lathe Operations. Few of the many uses of the small lathe are illustrated above. Figure (A) shows turning of spindle between centers of a lathe in making stair balusters, table legs, lamp bases and columns, candlesticks, bedposts, etc. Picture (B) shows sanding or polishing operation on balusters until completion of turning. Picture (C) shows in-boring with stock mounted on face plate. Small diameter wood turned by swing over bed such as bows, knuts and spacers can be done in this manner. Picture (D) shows in-boring for large diameter wood too big for in-boring turning; this operation is possible on many lathes such as (E) and (F) on opposite page.

A wide range of wood-lathe accessories are available (on opposite page) to add to the number of operations possible. A wheel either placed in the headstock spindle will accommodate various types of grinding wheels, such buffering wheels, wire brushes, etc., for a wide variety of grinding, polishing and buffing operations. Boring dies can also be attached to headstock spindle. Horizontal drilling can be done by using a chuck center in the headstock. Internals are also available (on small model) to increase working capacity.

[Table showing prices of Sanders and Wood Lathe]

1. 15.95
2. 53.95
3. 107.50

POWER-KRAFT and BEAVER

Belt-Driven Bench-Type Sanders 15.95 to 107.50

POWER-KRAFT 4-IN, BELT SANDER. A compact medium-duty sander with self-lubricating bronze bearings. Crowned roller drums for sanding of curved surfaces. Adjusting positive poppet belt tension and tracking. Removable side fences adjustable to 45°. Table 4½ sq. in. supports belt. Streamlined sturdy gray iron frame. With 4 by 36-in. sanding belt, and 2-in. sanding disc, to operate over 1½h ½hp. 4½ sq. in. Paper worktable finish, Metallized.

84 WT 2719 M—Bench type. Ship. wt. 18 lbs. $16.95


84 WT 2720 Y—Ship. wt. 44 lbs. 83 Down on Terms. $29.50

 Sanders (2) For 1½ HP. Alum. table, for wood, metal, base 12½ lb. 84 WT 2729—State frame, medium or course grit, wt. ea. 4 lbs. Each 55c.

POWER-KRAFT COMBINATION BELT AND DISC SANDER. For all around heavy-duty use in production or home workshop, professional quality, precision-made Sanders meets the rigid requirements of the most skilled craftsmen. Run smoothly and quietly. High quality precision-ground needle bearings. Wide-face, belt motors in vertical or horizontal position, locks at any angle from 0 to 90°. Cast-iron table, 25½x13½"x11½". Table and miter gauge in table large enough to perform the heaviest sanding jobs. Cast-iron auxiliary table, 6½x11 in., is interchangeable for use with belt or disc, which adjusts up to 45°. Massive crimson construction for added strength that controls vibration. Belt is driven on both, 5½-in. drum. Dimensions. Size overall 23½x11x4½". Includes 9-in. sanding disc, 4½-in. medium grit sanding belt, 3-in. diam. machine pulley. Gray wrinkle finish. Not Metallized. 84 WT 2726—Sander only. Ship. wt. 70 lbs. 85.50 Down, Cash 92.50

 Sanders (2) Worm 1½ HP Motor. See 83 WT 4514M, Page 28 for complete description. With 2½-in. diam. motor pulley, 54x41 in. "V" belt. 84 WT 2738 M—Ship. wt. 98 lbs. $89 Down on Terms. $279.15

 Sanders (2) For 1½ HP. Alum. table, Wood or metal, base 16½ lb. 84 WT 2727—State frame, medium or coarse grit, wt. ea. 15 lbs. 81.00

 BEAVER COMBINATION BELT AND DISC SANDER. Professional quality, precision-made tool for heavy-duty production or home workshop use. Run smoothly and quietly on gears-reduced ball bearings. Strong cast-iron construction for extra rigidity. 6-inch wide belt operates over 5½-square-inch, 12-in. diam. drum in horizontal or vertical position; locks easily at any angle from 0 to 90°. Table supporting belt in 4½x13½ in. Large capacity 12½-in. diameter disc has auxiliary work table, 7x11 in., with miter gauges can be used with either belt or disc.

Table and disc can easily be removed so that spindle can be used for drum sander or any accessory with No. 1 or No. 2 Morse taper. Complete with 6½-inch sanding belt (extra belt 84 WT 2727 listed above), 12-inch disc, 4½-inch diameter machine pulley; 4½-inch V-belt (for 1½-inch drum). "V" metal pulley separately. Shipped from Ramsey, near Detroit, Mich., pay Freight from there. Allow 7 days. Not Metallized. 84 WT 2711F—Ship. wt. 83 lbs. $11 Down on Terms. $19.10

1½ HP CAPACITOR MOTOR. For Sanders (3) above. See description Page 20. 84 WT 4514M—Alum. table. Ship. wt. 20 lbs. 83 Down...........$129.00

Wards Monthly Payment Plan. For complete information See Page 48.
Benchtop Sanders, Wood Lathes and Accessories

HOBBYISTS’ WOOD LATHE 21.95

HEAVY-DUTY WOOD LATHE 55.95

BIG CAPACITY BEAVER WOOD LATHE 57.95

TOOL RESTS, FACE PLATES, WOOD TURNING CHISELS AND OTHER LATHE ACCESSORIES

BEAVER TOOL REST HOLDER. For 3/4-in. shank. Fitts 10-in. lathe (10). 84 WT 2099-X—Wt. 5 lbs. 6 ozs. $5.50

BEAVER RIGHT-ANGLE TOOL REST. For (10), 5-in. surfaces. 84 WT 2099—Wt. 5 lbs. 6 ozs. $6.00

BEAVER FACE PLATES. For (10), OUTSIDE TURNING, 4 to 16 in. LH thread. Ship. wt. 2 lbs. 6 ozs. 84 WT 2090—6 in. diameter. $3.35

BEAVER FACE PLATES. For (10), OUTSIDE TURNING, 4 to 16 in. RH thread. Ship. wt. 2 lbs. 4 ozs. 84 WT 2090—6 in. diameter. $3.35

BEAVER TOOL REST. Cast steel. Use with (11) on lathe (10). 3/4-in. diam. Shank. 24 in. long. Double post. 84 WT 2092—Wt. 5 lbs. 6 ozs. $4.75

POW-KRAFT TOOL RESTS. Cast iron. 3/4-in. shank. Fits 8-in. Wt. 4 lbs. 4 ozs. 84 WT 2015—Simple Post. 12-in. $1.45

84 WT 2015—Double Post. 18-in. $2.05

*Norm Suffix K means Made promptly by Factory. Beaver lathe and accessories from Detroit 84 WT 2015K from Chicago.
The Drill Press

One of the Most Versatile Tools

Originally developed for drilling purposes only, the Drill Press has now become a multi-purpose tool capable of dozens of varied workshop operations such as routing, mortising, penning graining, etc. On an angle-use power tools, the drill press is most versatile. Multiple-step pulley arrangement gives it an exceptionally wide range of speeds, making it suitable for many types of operations on wood, metal, glass, plastics, etc. Dozens of accessories are available which make it one of the most useful of workshop tools.

Capacity of Drill Presses is usually expressed in terms of the diameter of the largest circle that can be centered drilled, which is twice the distance from chuck to column. Thus a 15-inch drill press has a 7½-inch distance between chuck and column. Bench or Floor Models are available; bench models should be firmly bolted to bench or table stand between 33 and 36 inches from floor, depending on operator's height.

Construction Details. The heart of a drill press is its spindle construction. One of the best designs is a splined drive with free-floating spindle, and an independently mounted drive pulley which prevents belt tension from fluctuating on spindle. Collets should be locked in when chucking in until press is in the kind of bearings it has and its general strength and rigidity and lack of vibration when running. Ball or roller bearing construction is necessary for heavy duty or continuous use, while bronze bearings give excellent service for light duty or hobbyist's operations. One of the best type of chuck is the Jacobs key chuck, which is simply on the tapered end of the spindle. It provides proper gripping power for greatest drilling accuracy. Ball bearing motors must be used on all drill presses, since motors are mounted in vertical position. 

Drill Press Specifications

Table: Drill Press Specifications

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>(A) 84 WT</th>
<th>(B) 84 WT</th>
<th>(C) 84 WT</th>
<th>(D) 84 WT</th>
<th>(E) 84 WT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drills in center of circle</td>
<td>4½ in.</td>
<td>5 in.</td>
<td>5 in.</td>
<td>5 in.</td>
<td>5 in.</td>
</tr>
<tr>
<td>Spindle travel</td>
<td>1½ in.</td>
<td>1½ in.</td>
<td>1½ in.</td>
<td>1½ in.</td>
<td>1½ in.</td>
</tr>
<tr>
<td>Column diameter</td>
<td>1½ in.</td>
<td>1½ in.</td>
<td>1½ in.</td>
<td>1½ in.</td>
<td>1½ in.</td>
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<tr>
<td>Height overall</td>
<td>33 in.</td>
<td>36 in.</td>
<td>36 in.</td>
<td>36 in.</td>
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</tr>
<tr>
<td>Chuck to table</td>
<td>12 in.</td>
<td>13 in.</td>
<td>13 in.</td>
<td>13 in.</td>
<td>13 in.</td>
</tr>
<tr>
<td>Spindle bearings</td>
<td>No. 2 &amp; 4</td>
<td>No. 2 &amp; 4</td>
<td>No. 4 &amp; 4</td>
<td>No. 2 &amp; 4</td>
<td>No. 2 &amp; 4</td>
</tr>
<tr>
<td>Thrust bearings</td>
<td>No. 2 &amp; 4</td>
<td>No. 2 &amp; 4</td>
<td>No. 4 &amp; 4</td>
<td>No. 2 &amp; 4</td>
<td>No. 2 &amp; 4</td>
</tr>
<tr>
<td>RPM range</td>
<td>2500-5000</td>
<td>2500-5000</td>
<td>2500-5000</td>
<td>2500-5000</td>
<td>2500-5000</td>
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<td>Table tilt</td>
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<td>Non-tilt</td>
<td>Non-tilt</td>
<td>Non-tilt</td>
<td>Non-tilt</td>
</tr>
<tr>
<td>Table area, in.</td>
<td>10 x 10</td>
<td>10 x 10</td>
<td>10 x 10</td>
<td>10 x 10</td>
<td>10 x 10</td>
</tr>
<tr>
<td>Base table area, in.</td>
<td>12 x 12</td>
<td>12 x 12</td>
<td>12 x 12</td>
<td>12 x 12</td>
<td>12 x 12</td>
</tr>
<tr>
<td>Recommended stand (page 5)</td>
<td>84 WT</td>
<td>84 WT</td>
<td>84 WT</td>
<td>84 WT</td>
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</tr>
<tr>
<td>Recommended V-belt (page 8)</td>
<td>84 WT</td>
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<td>84 WT</td>
<td>84 WT</td>
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<tr>
<td>Recommended motor pulley</td>
<td>2896</td>
<td>2896</td>
<td>2896</td>
<td>2896</td>
<td>2896</td>
</tr>
<tr>
<td>Recommended motor</td>
<td>1½ HP 1725 RPM</td>
<td>1½ HP 1725 RPM</td>
<td>1½ HP 1725 RPM</td>
<td>1½ HP 1725 RPM</td>
<td>1½ HP 1725 RPM</td>
</tr>
</tbody>
</table>

Precision-Built Powr-Kraft

12½-in. Powr-Kraft Drill Press 45.50

A Maximum duty bronze bearing bench model. Accurate to within .005 inch. Will perform all drill press operations described at left (except shaping), when used with proper accessories. Racks smoothly and quietly on oversize self-lubricating bronze spindle bearings; ball bearing absorbs end thrust. Drills to center of 12½-inch circle; maximum spindle travel 3½ in. Heavy construction throughout, 3 in. diam. column.

Free-floating automotive type involute 9-spline spindle with No. 38 Jacobs tapered end. Spiral coil quill return spring. With 4-step machine pulley. Streamlined design cast iron head adjusts up and down on machine ground tubular steel column. Adjustable motor mount permits easy movement of motor horizontally and vertically for perfect alignment of machine and motor pulleys. Machined table and base are diagonally slotted. Table can be swiveled on way, and base used as auxiliary table for extra working capacity; table does not tilt. Gauge shown depth at any position of spindle. With ½-inch Jacobs key chuck. See specifications below. Not Malleable.

<table>
<thead>
<tr>
<th>WT</th>
<th>84</th>
<th>84</th>
<th>84</th>
<th>84</th>
</tr>
</thead>
</table>

TOGGLE SWITCH. Fits in head of Drill Press (A) only. For use with motors up to 1 HP, 110-120 volts, AC or DC. UL approved.

$9.89

DRILL PRESS SPECIFICATIONS

Table: Drill Press Specifications

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>(A) 84 WT</th>
<th>(B) 84 WT</th>
<th>(C) 84 WT</th>
<th>(D) 84 WT</th>
<th>(E) 84 WT</th>
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</thead>
<tbody>
<tr>
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<td>12½ in.</td>
<td>15 in.</td>
<td>15 in.</td>
<td>15 in.</td>
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</tr>
<tr>
<td>Spindle travel</td>
<td>1½ in.</td>
<td>4 in.</td>
<td>4 in.</td>
<td>4 in.</td>
<td>4 in.</td>
</tr>
<tr>
<td>Column diameter</td>
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<td>2½ in.</td>
<td>2½ in.</td>
<td>2½ in.</td>
<td>2½ in.</td>
</tr>
<tr>
<td>Height overall</td>
<td>33 in.</td>
<td>73 in.</td>
<td>73 in.</td>
<td>73 in.</td>
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<tr>
<td>Chuck to table</td>
<td>13 in.</td>
<td>43 in.</td>
<td>43 in.</td>
<td>43 in.</td>
<td>43 in.</td>
</tr>
<tr>
<td>Spindle bearings</td>
<td>No. 2 &amp; 4</td>
<td>No. 4 &amp; 4</td>
<td>No. 4 &amp; 4</td>
<td>No. 4 &amp; 4</td>
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<td>RPM range</td>
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</tr>
<tr>
<td>Table tilt</td>
<td>Non-tilt</td>
<td>Non-tilt</td>
<td>Non-tilt</td>
<td>Non-tilt</td>
<td>Non-tilt</td>
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<td>Table area, in.</td>
<td>10 x 10</td>
<td>10 x 10</td>
<td>10 x 10</td>
<td>10 x 10</td>
<td>10 x 10</td>
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<td>12 x 12</td>
<td>12 x 12</td>
<td>12 x 12</td>
<td>12 x 12</td>
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<tr>
<td>Recommended stand (page 5)</td>
<td>84 WT</td>
<td>84 WT</td>
<td>84 WT</td>
<td>84 WT</td>
<td>84 WT</td>
</tr>
<tr>
<td>Recommended V-belt (page 8)</td>
<td>84 WT</td>
<td>84 WT</td>
<td>84 WT</td>
<td>84 WT</td>
<td>84 WT</td>
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<tr>
<td>Recommended motor pulley</td>
<td>2896</td>
<td>2896</td>
<td>2896</td>
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</tr>
<tr>
<td>Recommended motor</td>
<td>1½ HP 1725 RPM Ball Bearing Capacitor Motor (83 WT 4540 M, Pg. 20)</td>
<td>1½ HP 1725 RPM Ball Bearing Capacitor Motor (83 WT 4540 M, Pg. 20)</td>
<td>1½ HP 1725 RPM Ball Bearing Capacitor Motor (83 WT 4540 M, Pg. 20)</td>
<td>1½ HP 1725 RPM Ball Bearing Capacitor Motor (83 WT 4540 M, Pg. 20)</td>
<td>1½ HP 1725 RPM Ball Bearing Capacitor Motor (83 WT 4540 M, Pg. 20)</td>
</tr>
</tbody>
</table>
and Beaver Drill Presses... 3-in-1 Router

POW-KRAFT DRILL PRESSES 81.50

HEAVY DUTY BALL BEARING MODELS. Precision built throughout in rigid Power-Kraft production type specifications. Meet exacting standards...accurate to .005 inch. Long work capacity makes them the favorites of machinists and mechanics for steady production jobs. Run smoothly and vibration-free on precision machined new departure ball bearings at both ends of spindle. Will perform all operations described on opposite page including shaping when used with proper accessories. Drills in center of 15-inch circle, maximum spindle travel 4 inches.

Free floating automotive-type six-split spindle with No. 33 Jacobs Tapered end. Spiral coil quill return spring. Cast iron head adjusts up and down on tubular steel columns. Motor mount adjusts horizontally and vertically. Table tilts up to 45° each direction. Adjustable depth gage and stop screw for duplicate drilling. With 4-step machine pulley and 1/2-inch Jacobs key chuck. See specifications on opposite page.

POWER-KRAFT 15-IN. BENCH DRILL PRESS. Ship. wt. 110 lbs. 84 WT 5539-R $95.50 Down...Cash $91.50

BENCH MODEL DRILL PRESS WITH MOTOR. Includes 3/4-HP Ball Bearing Capacitor Motor (see 83 WT 4540M, Page 20), 4-step motor pulley and 42-in. "V" belt. Ship. wt. 137 lbs. 84 WT 2539-R $111 Down...Cash $105.50

POWER-KRAFT 15-IN. FLOOR MODEL DRILL PRESS. Ship. wt. 128 lbs. 84 WT 2534-R $95.50 Down...Cash $91.50

FLOOR MODEL DRILL PRESS WITH MOTOR. Includes 3/4-HP Ball Bearing Capacitor Motor (see 83 WT 4540M, Forge 20), 4-step motor pulley, 42-in. "V" belt. Ship. wt. 151 lbs. 84 WT 2540-R $121 Down...Cash $115.50

DRILL PRESS ACCESSORIES On Page 18.

BEAVER DRILL PRESSES 134.95

HEAVY-DUTY ROLLER BEARING MODELS. Superior professional quality tools for continuous production use. Used wherever heavy duty performance and close tolerances are essential. Timken tapered roller bearings on spindle and pulley mounting give smooth, vibration-free operation. Will do all operations described on opposite page when used with proper accessories. Drills to center of 15-inch circle, maximum spindle travel 4 1/2 inches.

Chrome nickel alloy steel six-split spindle. Spindle end has No. 33 Jacobs taper. Cost semi-steel heads have adjustable motor mount brackets, and friction clamps on column table and quill. Adjustable tension spring for quill return control; adjustable stop for doing duplicate drilling.

Machined ground cast semi-steel table and base surfaces are slotted to hold jigs and clamps. Table rigidly mounted on knee bracket, tilts to 100° in either direction; automatically sets at level position with pin. 3-bevel handle feeds control. Safety machine pulley with matching motor pulley (3/4 or 1/2-inch, bore) incl. Upper belt guard removable for changing speeds. Dark gray wrinkle finish. Order Jacobs Safe-Lock chuck, motor and "V" belt separately. Shipped from factory warehouse in Detroit, Mich. Allow one week extra time. Ship. wt. 185, 210 lbs.

POWER-KRAFT ROUTER-SHAPER-CARVER 285.50

COMPACT 3-IN-1 UNIT. Ideal for cabinet and carpenter shops, furniture factories and model makers—will work plastics and aluminum as well as wood. Can be adapted to many jobs (see views below). Changes positions in 30 seconds. Frame and table are heavy gray iron castings. 18x14-in. table has machined slot for miter gauge (not included). Foot pedal raises or lowers table 1/4 in. per stroke—table moves up and down 1/4 in., on machine, dovetailed ways. Head swivels to allow free movement for curving. With curving cutter spindle, threaded 3/8-in. 24 threads, fits standard curving cutters. Lock under table fastens motor to table for shaping. Chuck holds shaping adapter close to front bearing for added support to produce smooth cuts. Lock on pedal and knob come in raised position for routing. With 6 guide pins for duplicate routing or reaming.

General Electric universal motor operates on 110-120-V. A.C. or D.C., 60-cycles or less. Develops 1500 watts maximum output at spindle 746 watts equal 1 HP. No load spindle speed 20,000 R.P.M. Motor and spindle are ground together—balanced and supported by four New Departure ball bearings. Propeller fan keeps working parts cool. Motor mounted on 2x14-in. adjustable steel arm may be easily swiveled.

Standard equipment includes roller chuck for 1/4, 1/2, and 3/4-inch shank router bits; curving spindle; shaped cutters for 3/8 and 1/2-in., 3 lip shaped cutter; 6 guide pins; wrenches; knee table, shaped fence, motor, cord and switch.

Size overall: 3 1/2x5 1/2x5 1/2 in. Shipped promptly from factory in Chicago for shipping charges from there. Not Refundable. 84 WT 2654 F—Ship. wt. 274 lbs. $29 Down or Cash $265.50


83 WT 4540 M $224.95

High Speed and Power for Routing

Handle Heavy or Light Shaping Operations

Irricate Curving

NEW WARDS 17
It’s Easy to Order by Mail

Millions like to order direct by mail because it’s so convenient to do your shopping comfortably at home. Take all the time you want to choose the items you need. Then just mail your order to Wards. We will give it prompt attention, guaranteeing satisfaction in every way.

Simply list all items wanted, using the order blank enclosed or any plain piece of paper. Give complete information, stating full Catalog Numbers, descriptions, names, shipping address, weight and price. Be sure to write Item No. and State Size if there is a choice. Add shipping weight to determine total weight of order.

Surface Inquiries. Unless otherwise specified, all items in this catalog are shipped promptly from Stock. You pay shipping charges from your nearest Wards Mail Order House unless item is marked “Postpaid,” or you have agreed to pay freight. On some factory shipments you pay shipping charges from factory; extra time for handling.

On all mailable items except those marked “Postpaid,” include amount for postpaid with your order (see rates below). If you send too much, we will return every cent not needed. DO NOT send money for Freight or Express charges if there is a freight agent at your station; pay shipping charges when goods arrive. See estimated rates below.

How to Send Money. Best ways to send money are: Postal or Express Money Orders; Bank Money Orders or Drafts; Cashier’s Checks or your own personal check. If you live on a rural route, your mail carrier will arrange for a Post Office Money Order.

About Prices. Prices in this catalog reflect Wards policy of quoting lower prices, wherever possible, than asked elsewhere for items of comparable quality. However, if a further price reduction is made on any item during the life of this catalog, we will add to your order at the reduced price. You always get the benefit of any price reductions in effect when your order is received. Prices are subject to change without notice, and are subject to additional charges to cover any applicable sales tax, use tax, or other tax affecting our purchase or sale.

About C.O.D. Orders. We do not accept orders for less than $5 to be sent C.O.D. except for repair parts. No C.O.D.’s on orders cut or made to order; nor for any items described in the Catalog as shipped from a Factory. If there is a Ward Catalog Office or Ward Retail Store near you, it will be glad to lend you their stock and have it shipped to your door. Or you can call for your order and save part of the transportation charges.

MONTHLY PAYMENT PLAN. See Page 41 for details of this convenient plan.

PARCEL POST RATES

<table>
<thead>
<tr>
<th>Weight</th>
<th>Local</th>
<th>I</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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<tbody>
<tr>
<td>Up to 5 ounces</td>
<td>5 1/2</td>
<td>8 1/2</td>
<td>12</td>
<td>16</td>
<td>20</td>
<td>24</td>
</tr>
<tr>
<td>6 to 10 ounces</td>
<td>8 1/2</td>
<td>10</td>
<td>13</td>
<td>17</td>
<td>21</td>
<td>26</td>
</tr>
<tr>
<td>Over 10 ounces</td>
<td>8 1/2</td>
<td>10</td>
<td>13</td>
<td>17</td>
<td>21</td>
<td>26</td>
</tr>
</tbody>
</table>

POW-KRAFT SHAPER AND CUTTERS

HIGH-SPEED PRODUCTION-TYPE SHAPER $65.50

- BALL BEARING MODEL. Takes 5/8 in. and 5/8-in. shaper cutters. Cuts moldings and grooves on edges, faces of straight or curved work. 94,750 RPM spindle speed. New Departure ball bearing spindle, 1/5-in. diameter, travels 1 in. 1/5-in. diameter, quill. Micrometer spindle adjustment - one turn of wheel moves spindle 1/100 in., 8-stud. Centered, too. Adapter kit is furnished, operates in both directions. Micrometer adjustment controls cutting depth. Cast iron 4x4x18 in. table. Size overall 19x3x4x11 in. With fence, starting pin, 5/8-in. and 5/8-in. cutter adapters, 24-in. lathe pulley.
- WT 48450 - Ship wt. 72 lbs. Not Mailable. $7 Down. Cash $55.50
- WT 48292 - Shaper with 5/8 HP high-speed capacitor motor (82WT4855M) on Page 20, 5-in. motor pulley, 31" Belt, Ship wt. 101 lbs. $195.98

REVISING SWITCH. On, off and reverse positions. Baked case and lever knob. For motors up to 1 HP, 110-220 volts A.C. UL Approved.
- WT 48291 - Ship wt. 12 oz. $6.25

SHAPER MECHANISM. Same as mechanism in (20) above. For making your own wood shaper, Spindle mounted in New Departure ball bearings. For 5/8 in. or 5/8-in. bore shaper cutters. With adapters, 5/8-in. diam. machine pulley.
- WT 48261 - Ship wt. 20 lbs. $31.50 Down. Cash $31.50

SHOPSMITH 5/8-IN. BORE SHAPER CUTTERS. Use on shapers, Shopsmith or drill presses. Alloy steel, 1-in. width cut, 1 1/8-in. diam. Proper heat treatment prevents burning, eliminates drop edges angled for true shaving cut.
- WT 48262 - Ship wt. 10 lbs. $185 Down. Cash $185

SHOPSMITH DROPLEAF TABLE SHAPER CUTTER SET, 5/8-in. bore.
- WT 48431 - One for dropfeed, one for table edge. Postpaid. Eq. $9.50


SHAPER COLLABS. Mount with shaper cutters to control depth of cut.
- WT 48267 - Pow-Kraft 5/8-in. bore. Assorted sizes. Set of 6. WT 2 oz. 83c
- WT 48266 - Shopsmith 1/2-in. bore collars. 5/8-in. bore. Assorted sizes. Set of 6. WT 2 oz. 83c

SPLIT SHAPER KNIVES. COLLABS. Grind knives to profile required. Two beveled edge knives 5 1/2x5/8x1/16 in. clamp between collars. Sold width.
- WT 40777 - Knives, Wt. 6 oz. 5/8-in. Pair $21.95. Ship wt. 6 oz. $21.29
- WT 40780 - Collars, 1/2-in. diam., 5/8-in. bore, Ship. wt. 12 oz. $1.79

ITEMS WITH "X" AFTER CATALOG NO. Marked from Chicago Factory, Pay Postage From There. SKIP WARDS 19
Now... Complete Selection of Fine Quality Powr-Kraft

BEARING CONSTRUCTION OF WARDS MOTORS

Most Powr-Kraft motors have precision grease sealed ball bearings to insure smooth, quiet operation and dependable performance at peak efficiency. Ball bearing construction permits you to use motors in any position. Wards sleeve-bearing Split-Phase motors are equipped with nylon thrust washers that allow both horizontal and vertical mounting. Slotted mounting bases.

SPLIT-PHASE MOTORS 12.95 to 18.95

(A) 1/4 and 1/5 HP Standard Models. Precision sleeve bearings with large oil reservoir. New nylon thrust washer allows horizontal or vertical mounting. Can be used on belt powered, etc. Motor turns in steel cradle to any angle; can be mounted upside down. Single shaft. Built-in conduit box. Mounting dimensions 3 x 3 x 4 1/2 in. 83 WT 4505 M-1/4 HP. Ship. wt. 30 lbs. $12.95
83 WT 4505 M-1/5 HP. Ship. wt. 22 lbs. $13.95

(B) 1/2 HP. De Luxe Model. Streamlined design with heavy cast-iron base. Grease-sealed precision ball bearings—smooth operation. Use motor in any position. On-off toggle switch in base. Double shaft. Mount dimensions 3 x 5/8 x 4 3/8 in. 83 WT 4507 M-Ship wt. 26 lbs. $18.95

NEWLY DESIGNED Powr-Kraft CAPACITOR MOTORS 21.00 to 59.50

(C) RAIL BEARING CAPACITOR MOTORS. Combine powerful, efficient operation with streamlined appearance. Most or exceed NEMA performance specifications. For medium to hard starting jobs. Use 1/3 less starting current than Split-Phase motors; yet start up to 1/2 heavier loads. Very efficient for home or machine workshop tools.

(D) Centrifugal starting switch—same contact points. (E) Efficient fan and air vents. (F) Double shaft—will operate two tools at once. (G) Keyed drive shaft, securely interlocks drives. (H) 8 ft. rubber-covered cord, unbreakable plug. (I) Blue-Grey baked-on enamel finish.

Motors (C) (D) (G) and (H) have on-off switches in base. Motor (I) has hub-driven switch box. High Speed motors (3450 RPM) eliminate step-up pulleys. All motors equipped with capacitor is one-hundred percent protected against burn-out. (J) Capacitors reduce starting current 1/3. (K) "Fenwax" insulated windings with baked-on plastic finish—protection against heat. (L) High efficiency motors. All motors interlocked with safety interlock system.

(E) 1/3-HP APPLIANCE CAPACITOR MOTOR. For workshop tools and replacement on stokers, refrigerators, etc. 83 WT 4508 M-1/3 HP. Ship. wt. 2 lbs. $24.95

WARDS ELECTRIC MOTORS ARE GUARANTEED ONE YEAR AGAINST DEFECTS

Power-Kraft motors are engineered and built by several of the nation's leading manufacturers. Each motor is scientifically tested before shipment. If any Ward motor, used and cared for in accordance with operating instructions, proves defective in materials or workmanship within one year of date of purchase we will repair it without charge.

F] FLOATING MOTOR RAIL. Provide power for several tools with one motor. Mount extra brackets (G) near each tool—shift motor as needed. Motor weight gives belt tension. For 1/4 to 1/2 HP motors. Ship. wt. 1 lb. 83 WT 4740-Motor rail, brackets, screws, bolts included. $9.90

RESILIENT MOUNTING KIT. Fits motors (A) and (F) only. Cushions motor, permitting smoother, quieter operation. Rubber mountings replace metal rings. 83 WT 4509—Shipping weight 5 oz. Kit $1.19

MOTOR TOGGLE SWITCH. For all motors up to 1/3 HP. Fits 1/4-in. diam. hole in motor base or other mount. 83 WT 4702—Shipping weight 2 oz. Each 45c.

www.OzarkToolManuals.com
Electric Motors . . . Power for Every Purpose

Using Mill-Type Capacitor, Repulsion-Induction and 3-Phase Motors

Mill-Type Capacitor motors are designed for heavy-duty starting jobs on power tools, compressors in factories, farms, etc. Repulsion-Induction motors, especially recommended for use where heavily loaded circuits cause low voltage. Start heaviest of loads. For large-capacity power tools, deep well pumps, refrigerators, freezers, etc. 3-Phase motors are used for heavy industrial jobs in mills, machine shops and factories . . . operate only on 3-phase power circuits. See Power Co.

Select the Right Size Motor

Be sure the motor you buy is big enough to do the job economically. Too small a motor will operate under continual strain—shortening its life. A slightly larger motor will last years longer. All Ward motor RPM's shown are full-load speeds.

Repulsion-Induction Motors 39.95 to 259.00


(N) 1 to 5-Horsepower. For heavy production work in shops, factories or hoist starting jobs. Pre-fused insulated grease-sealed ball bearings. One-smooth, quiet operation. Cast-iron frame, end shields and base. Use in any position. Brush-lifting mechanism. Moisture-resistant.

<table>
<thead>
<tr>
<th>Key</th>
<th>Catalog Number</th>
<th>Horsepower</th>
<th>Shaft diam.</th>
<th>Mounting dim.</th>
<th>Ship wt.</th>
<th>Cash Price</th>
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<td>(M)</td>
<td>83WT4612M</td>
<td>11/2 HP</td>
<td>5/8 in.</td>
<td>5 x 5 7/8 in.</td>
<td>30 lbs.</td>
<td>$43.50</td>
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<tr>
<td></td>
<td>1</td>
<td>3/4 in.</td>
<td>5/8 x 5 7/8 in.</td>
<td>21 lbs.</td>
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<tr>
<td></td>
<td>2</td>
<td>3/4 in.</td>
<td>5/8 x 5 7/8 in.</td>
<td>21 lbs.</td>
<td>89.50</td>
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<tr>
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<td>3</td>
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<td>17 lbs.</td>
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<td></td>
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<tr>
<td></td>
<td>4</td>
<td>5/8 x 5 7/8 in.</td>
<td>17 lbs.</td>
<td>126.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>5/8 x 5 7/8 in.</td>
<td>17 lbs.</td>
<td>126.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(N)</td>
<td>83WT460M</td>
<td>1 HP</td>
<td>5/8 in.</td>
<td>5 x 5 7/8 in.</td>
<td>41 lbs.</td>
<td>$41.50</td>
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<tr>
<td></td>
<td>1</td>
<td>5/8 in.</td>
<td>5 x 5 7/8 in.</td>
<td>23 lbs.</td>
<td>84.50</td>
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<td>5/8 in.</td>
<td>5 x 5 7/8 in.</td>
<td>23 lbs.</td>
<td>84.50</td>
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<tr>
<td></td>
<td>3</td>
<td>5/8 x 5 7/8 in.</td>
<td>13 lbs.</td>
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<td>60.00</td>
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<tr>
<td></td>
<td>5</td>
<td>5/8 x 5 7/8 in.</td>
<td>13 lbs.</td>
<td>60.00</td>
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<td></td>
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</tbody>
</table>

Wiring: Use 3-wire cord. Rated 15 amp at 125 volts. Ship wt. 10 oz., $3.45

Westinghouse Start and Stop Motor Snap Switch. Full voltage starts for motors up to 2 HP. Can be locked in on or off position. 2-pole switch. Boureden Gray metal finish resists rust. Does not provide overload protection. 83WT470—For 110-120/220-240-V. AC. Ship wt. 1 lb. 8 oz., $2.95.

Polarized Grounding Receptacle with Cap. Meets new code requirements for grounding portable tools, washing machines, dryers, etc. 83WT270—Use 3-wire cord. Rated 15 amp at 125 volts. Ship wt. 10 oz., $3.45

Circuit Protector. Replaces fuse. Must pull to reset. SCREW 15, 20 or 30 amp. Ship wt. each 3 oz.

Black Rubber Cord. Heavy-duty type for replacement extensions.

Replacement Cord With Plug. 2-wire, 10-ga. conductors. Stripped leads. 83WT1721—10 ft. Ship wt. 1 lb., $2.50

3-wire Extension Cord. With plug and outlet. 16-ga. copper conductors. 83WT1721—25 ft. Wt. 2 lbs., $1.79

3-wire Ext. Cord. Meets new code requirements for portable tools, 14-ga. 83WT1721—25 ft. Wt. 5 lbs., $7.95
Complete Your Workshop with a Power Grinder

The Grinder—for Keeping All Your Cutting Tools Sharp

A Power Grinder will save you both time and effort in keeping your tools sharp and keen. It will add to your safety by helping to eliminate the danger of working with dull tools. Also useful for sharpening cutlery, for grinding edges on farm implements, and for grinding down many kinds of hard and soft metals. A practical investment in every complete home workshop, the grinder is necessary for the maintenance, metalworking or garage shop. Grinding wheels can easily be removed and replaced with special abrasive wheels, cloth wheels or wire brush wheels for cleaning operations, specifically designed for many buffing, polishing, cutting and abrasive operations.

Electric and Belt-Driven Grinders 10.95 to 43.95

- 1 HP Standard Model Grinder. Outstanding value. Designed and constructed to give years of service under hard use in production shop or home workshop. Runs smoothly on grease-sealed ball bearings. Powerful 1 HP split-phase motor operates on 110-120 volt, 60 cycle A.C. UL Approved. No-load speed 3450 RPM. On-off switch, \( \frac{3}{4} \)-in. diam. shaft. Heavy cast base and guards. Adjustable tool rest. With two aluminum oxide vitrified grinding wheels. 7-in. and 1-in. 5/8-in. center drill and Arbor. Grind last. Ship wt. 50 lbs. Motorize. 84 WT 1010 M—$33.95

16-Piece Kit 10.95 to 43.95

- 16-Piece Kit at low cost, combines the hobbyist's favorite, the Power-Kraft \( \frac{1}{2} \)-HP Grinder, with 15 useful accessories...with it you can grind, drill, sand, wire brush, polish...and do it faster and easier. Electric grinder is complete with two 4½-in. wheels—1-in. face, 1 medium grit—on \( \frac{3}{4} \)-in. diam., 24-thread adjustable tool rest, built-in work light, on-off switch. Plastic spark guards. For 110-120-volt, 60 cycle A.C. Self-lubricating bronze bearings. UL Approved. Accessories: Arbor assembly; 4½-in. polishing and buffing cloth wheels; polishing compounds; molded rubber backing disk; 8 disks sanding; sandpaper 4½-in. capacity chuck; 3 chrome alloy steel twist drills (3x, 3½x, 4x dia.); 3 diam., wire brush wheels. 84 WT 1011 M—Motorized. Ship wt. 15 lbs. $10.95

- \( \frac{1}{2} \)-HP Grinder Only as described in kit above. 84 WT 1010M—Motorized. Ship wt. 9 lbs. $10.95

16-Piece Master (Best) Quality Bench Grinder. For extra-heavy duty use. Ball bearing. Full length adjustable tool rest. Main shaft is 18 in. long; \( \frac{3}{4} \)-in. diam. Coarse-in pulley 4½-in. wide by \( \frac{3}{4} \)-in. diam. for \( \frac{1}{2} \)-in. round or flat pulley belts up to 2 in. wide. Cast iron base 12½ x 9½-in. Height from base to shaft center 7½-in. With guards and two Wards Master Bench Quality 8-lb.4-in-2, vitrified wheels; fine, coarse. Mailable. Ship wt. 60 lbs. 84 WT 1017 M—$33.95

Wards Monthly Payment Plan: See Page 49

Power-Kraft Flexible Shafts Give "Reach" to Your Motor 3.98 to 17.95

- Flexible Shafts and Extension. One of the most helpful tools in your shop. Hem hundreds of uses in home, garage or repair shop. Gets into difficult places and corners where stationary tools cannot reach. Extends power of motor beyond its own permanent or portable mount. Can be used with a wide range of accessories for grinding, drilling, sanding, wire brushing, polishing and cleaning. Attaches to any \( \frac{1}{2} \)-in. diameter motor or flex shaft (see adapter 84 WT 2092M on Page 58 to fit \( \frac{3}{4} \)-in. diam. shanks). \( \frac{1}{2} \)-in. and \( \frac{1}{2} \)-HP for counter-clockwise operation at 1725 RPM. Flex motors on Pages 20-21. For free folders on holding grinding wheels, wire brushes, etc. Has \( \frac{3}{4} \)-in. diam., 24-thread spindles for accessories on opposite page. For chucks 84 WT 2746D to \$1 spindle, see page 5.

Smooth running ball bearing hand-piece and motor coupling for positive connection. Inner core of brass, oversize wire wound layers of high carbon steel wire. Wound with soft dead filler wire making up easing assembly. Choice of medium or light-dutyshafts at right.

Grindstone 19.25, Polishing Head 2.39

- Belt-driven Wet Grindstone. Operates at low speed and in water to prevent drawing temper from tools. Ohio sandstone wheel withstands heavy industrial use. SImb 10x1½-in. Heavy cast iron construction. \( \frac{1}{2} \)-in. diam. shaft rotates at 125 RPM when \( \frac{1}{2} \)-in. diam. belt is used with 1725 RPM motor. Recommended \( \frac{1}{2} \)-HP split-phase motor (89 WT 4600M), Page 20. With adjustable tool rest, 3 pulleys. "Y" belt. Gray finish. 84 WT 5285 M—11½x1½x1½-in. long, Mold, Wt 31 lbs. $19.25

- Polishing Head. Takes wheels \( \frac{1}{4} \)-in. or \( \frac{1}{4} \)-in. wide. Shaft 1½x3½-in. long. Thread. Height to spindle center, 5-in. With \( \frac{1}{2} \)-in. diam. "Y" pulley. Uses 1725 RPM motor, 3-in. motor pulley (tool included). Ship wt. 4 lbs. 84 WT 2711—Polishing head with bracket $10.50

- Sand-D-Flex Contour Sander. For curved or irregular surfaces. Eliminates tedious hand sanding. 3-in. diam. head. Garnet abrasive override, 6 brushes. Fits \( \frac{1}{4} \)-in. or \( \frac{1}{2} \)-in. diam. motor shafts. 84 WT 2750—State diam. of motor shaft. Postpaid. $5.85

- Abrasive Refill Cartridges. Fits (G) above. State size, medium or coarse grit. 84 WT 2782—Refill. Postpaid...Each 3½c

- 84 WT 2733—Aluminum oxide. Postpaid...Each 4½c

- 84 WT 2734—Brushing. Postpaid...Each 5½c, of size 8½c

www.OzarkToolManuals.com
Complete Selection of Sanding, Polishing and Grinding Needs

PADS, BELTS, SHEETS FOR POLISHING, SANDING, AND BUFFING

A SHOPSMITH LAMBSWOOL POLISHING PAD. Deep wool pile, 6-in. diam., 84 WTP 3128 X—Fits on 6-in. face plate or disc. Postpaid........$1.50

B SHOPSMITH LAMBSWOOL POLISHING BONNET. Fits sanding drum (C), 84 WTP 3129 X—Postpaid........$1.50

C SANDING DRUM. Fits flexible shaft, polishing head, etc. Threaded to fit 1/2-by-20un., 84 WTP 3110 X—With soft rubber band. Diameter, 2½-in., Shipped wt. 2 lbs. $2.19

D SHOPSMITH SANDING BELTS. Fits sanding drum (C), 2½-in. diam., 84 WTP 3133 X—State Fine, Med., Coarse, or Ass't d grit. Postpaid 6 for $1.25

E ALUMINUM OXIDE SANDING BELTS. For sanding wood or metal. Ideal for work on both types with sanders. Cloth backed, State Fine (F), Med. (M) or Coarse (C) grit when ordering.

<table>
<thead>
<tr>
<th>Catalog No.</th>
<th>Fine</th>
<th>Medium</th>
<th>Coarse</th>
<th>Price</th>
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<tbody>
<tr>
<td>84 WTP 8354</td>
<td>6x137.3</td>
<td>6x137.3</td>
<td>6x137.3</td>
<td>49c</td>
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<td>84 WTP 8355</td>
<td>4x179</td>
<td>4x179</td>
<td>4x179</td>
<td>25c</td>
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<td>84 WTP 8357</td>
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<td>3x224</td>
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<td>84 WTP 8359</td>
<td>1x336</td>
<td>1x336</td>
<td>1x336</td>
<td>3c</td>
</tr>
</tbody>
</table>

F HAND SANDER. Ideal for small sanding jobs in home or workshop. Newly inset pointerless frame. Has 1½-in., med. grit abrasive cloth strip over 3½-in. sponge rubber cushion. 84 WTP 4109—With 1 roll of abrasive cloth. Ship. wt. 6 oz. ...........$49c

SANDPAPER SHEETS, in handy packages of 60. Assorted grits. 84 WTP 4110—4½x5½-in., Ship. wt. 2 lbs. 4 oz. ..........39c

G ALUMINUM OXIDE SANDING SHEETS. Fits portable sanders. Use on wood or metal. Designed and tested especially for power sanders. Longer lasting and tougher than ordinary sandpaper. Grade grit when ordered.

<table>
<thead>
<tr>
<th>Catalog No.</th>
<th>Fine</th>
<th>Medium</th>
<th>Coarse</th>
<th>Price</th>
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<td>3x224</td>
<td>3x224</td>
<td>15c</td>
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<td>1x336</td>
<td>1x336</td>
<td>1x336</td>
<td>3c</td>
</tr>
</tbody>
</table>

H EMERY CLOTH. Handy packages of 6 assorted grit sheets. 84 WTP 4111—4½x5½-in., 6 sheets, State 00, 0, or 1 grit. Ship. wt. 8 oz. .........80c; 16 oz. .........1.50

I BUFFERING COMPOUND, in 1-lb. bale, State Co. No. Ship. wt. 1 lb. 4 oz. 84 WTP 2796—Tarfolk ..........49c

J SANDING DISCS—GRINDING WHEELS AND ABRASIVES FOR BENCH GRINDERS

K SANDING DISCS. Use aluminum oxide for wood or metal. Use garnet for wood only. State grit as listed below. Fine—F, Medium—M, Coarse—C. Extra Coarse—XC.

<table>
<thead>
<tr>
<th>Catalog No.</th>
<th>Diam.</th>
<th>Hole</th>
<th>Grit</th>
<th>Price</th>
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<tbody>
<tr>
<td>Fine 84 WTP 8355</td>
<td>4 in.</td>
<td>4½-in.</td>
<td>10</td>
<td>20 for 39c</td>
</tr>
<tr>
<td>84 WTP 8356</td>
<td>5 in.</td>
<td>4½-in.</td>
<td>10</td>
<td>20 for 69c</td>
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<tr>
<td>84 WTP 8357</td>
<td>6 in.</td>
<td>4½-in.</td>
<td>10</td>
<td>3 for 39c</td>
</tr>
<tr>
<td>84 WTP 8358</td>
<td>6 in.</td>
<td>4½-in.</td>
<td>6</td>
<td>2 for 39c</td>
</tr>
<tr>
<td>84 WTP 8359</td>
<td>6 in.</td>
<td>4½-in.</td>
<td>6</td>
<td>2 for 69c</td>
</tr>
<tr>
<td>84 WTP 8360</td>
<td>6 in.</td>
<td>4½-in.</td>
<td>10</td>
<td>20 for 69c</td>
</tr>
<tr>
<td>84 WTP 8361</td>
<td>6 in.</td>
<td>4½-in.</td>
<td>10</td>
<td>20 for 69c</td>
</tr>
</tbody>
</table>

L GRINDING WHEELS. Fully vitrified. Dressed on both sides and have lead centers. Wheels with center holes over 3½-in. Mailed promptly from Chicago Factory. Others from Stock. Important state diameter, thickness and hole size.

<table>
<thead>
<tr>
<th>Diameter</th>
<th>Thickness</th>
<th>Weight</th>
<th>Medium (60 Grit)</th>
<th>Fine (100 Grit)</th>
<th>Extra Fine (300 Grit)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 x 1/4&quot;</td>
<td>1 lb.</td>
<td>55c</td>
<td>55c</td>
<td>55c</td>
<td>55c</td>
</tr>
<tr>
<td>6 x 1/4&quot;</td>
<td>1 lb.</td>
<td>65c</td>
<td>65c</td>
<td>65c</td>
<td>65c</td>
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<tr>
<td>8 x 1/4&quot;</td>
<td>1 lb.</td>
<td>70c</td>
<td>70c</td>
<td>70c</td>
<td>70c</td>
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<tr>
<td>10 x 1/4&quot;</td>
<td>2 lbs.</td>
<td>80c</td>
<td>80c</td>
<td>80c</td>
<td>80c</td>
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<tr>
<td>12 x 1/4&quot;</td>
<td>2 lbs.</td>
<td>85c</td>
<td>85c</td>
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<tr>
<td>14 x 1/4&quot;</td>
<td>2 lbs.</td>
<td>90c</td>
<td>90c</td>
<td>90c</td>
<td>90c</td>
</tr>
<tr>
<td>16 x 1/4&quot;</td>
<td>2 lbs.</td>
<td>95c</td>
<td>95c</td>
<td>95c</td>
<td>95c</td>
</tr>
</tbody>
</table>

M NIAGARA GRINDING WHEELS, Mo. by Carborundum. Improved aluminum oxide, 4-in. holes, 4½-in. diam. Wheels have metal bushings. Wheels have high-speed, thick edge and hole size. 84 WTP 5241—Fine (50G) grit, 60% in., ...$1.85; 75% in., ...$2.05; 90% in., ...$3.05

N RUBBER BONDED CUT-OFF WHEEL. Aluminum Oxide. State size. Ship. wt. 2 lbs. 84 WTP 5231—1 x ½-in. hole. ...$0.65; 1 x 3/8-in. hole. 84 WTP 5232—1 x 1/8-in. hole. ...$0.85; 1 x 1/4-in. hole. 84 WTP 5233—1 x 1/8-in. hole. ...$0.95; 1 x 1/4-in. hole. 84 WTP 5234—1 x 3/8-in. hole. ...$1.05; 1 x 1/2-in. hole. 84 WTP 5235

O "MAX" CUT-OFF WHEEL. For fast cutting of metals, Bakelite, Masonite, etc. Used for finish grinding on sides or edges. Cuts fast and abrasive construction for greater safety—will not splinter. 1½-in. hole, bushing furnished for smaller holes. Recommended speed 3000 RPM. State wheel diameter and hole size. Postpaid. 84 WTP 5241—Fine (50G) grit, 60% in., ...$1.85; 75% in., ...$2.05; 85% in., ...$3.05

P CLOTH BUFFING WHEELS, 1½-in. bore. 1½-in. cloth. State diam. 84 WTP 5242—Coarse (24G) grit, 6½-in., ...$1.85; 7½-in., ...$2.05; 8½-in., ...$3.05

Q WIRE SCRATCH BRUSHES. State diameter wanted.

R SANDING DISCS. Fine 4½-in., 8 thistled spindles, 6-in. diameter. 84 WTP 2668—Ship. wt. 1 lb. ...$1.05

S WIRE 84 WTP 2669—4½-in., 8 thistled spindles, 6-in. diameter. 84 WTP 2668—Ship. wt. 1 lb. ...$1.55

T LIGHT-DUTY SAW BLADE, 5½-in. Arbor hole. 84 WTP 5275—4-in. diam. Ship. wt. 2 oz. ...$0.95

U BENCH STONE. Vitrified silicon carbide. Combination coarse and fine grit. 84 WTP 5276—6½x2½-in., Ship. wt. 16 oz. ...$1.10

W WARDS 23
Portable Electric Saws
Cut 10 Times Faster than Hand Saws

Portable electric saws are often called the "builder's saws." They have done much to cut time and cost in home building. They are ten times faster than hand-sawing and more accurate. An average worker can keep 4 to 6 men busy raftering out material in place. Very easily, can handle almost all sawing operations the home builder might need. Ideal for on-the-spot cutting of material that cannot be carried to the shop saws, like the portable electric saws. The most practical tool to use for cutting large sheets of plywood. The time and labor you can save in completing an unfinished attic, playroom or in adding a porch more than earns its relatively low initial cost.

Modern engineering developments have added even more to the versatility of the portable electric saw. Illustrations above show (1) accurate bevel cutting up to 45°, (2) use of depth-of-cut adjustment; (3) overhead cutting; (4) cutting corrugated roofing with special cutoff wheel; (5) pocket cutting; (6) cutting concrete block with cut-off wheel.

Points to consider carefully before buying your saw. The size and capacity saw you select depends on the type and thickness of materials it will be required to cut, and the sustained periods of operation over which it will be in use. Ball bearing construction permits free, smooth operation of the saw over prolonged periods, provides cooler operating temperature, and is best suited for production use and professional operation. Self-lubricating porous bronze bearings provide excellent service when used for intermittent or home workshop use. A 4-in. saw makes a good "scotfold saw"—one used on scotfold or ladder for occasional quick cuts. The light weight and compactness reduces arm fatigue and permit one hand operation for cutting sheathing, overhead cutting, inside finish sawing, etc., or ordinary cutting of materials not over 1 in. thick.

A 6-in. saw will do a good job on 2-in. lumber if frequent 45° cuts are not required. It is ideally suited for the hobbyist or home craftsman whose work most frequently involves 2-in. and smaller material. 7-in. saws make good general purpose tools to handle many jobs where the light weight of the small saws and the large capacity of larger saws are desirable. Because they can make one-cut miters and bevel cuts on 2-in. stock, the 8¼-in. saw is in greatest demand for the home builder. Aside from being more powerful and having over a full inch greater capacity than a 6-in. saw, the 8¼-in. saw has more teeth to the blade and therefore stays sharp and produces an even smoother and straighter cut.

The average portable electric saw has a high speed AC-DC motor, geared down to 3000 to 6000 RPM a frame and handle; hard and hard at top and one that retracts or swings at the bottom. Most saws are equipped with combination blades for rip or crosscutting. A trigger switch should be on the saw to cut off power the instant finger pressure is removed. When an electric saw must be used in a damp place, outdoors or on a green stock, it should be equipped with a ground wire jack.

Simple to Use, No Special Skill Required. The portable electric saw is used in the same way that you would use a carpenter's hand saw. Most of the fundamental principles apply. The saw is held in one hand and the work supported by the free hand (except in cases where the work is being cut, when it is permissible and desirable to guide the saw with both hands). The trigger should be kept in a straight line with the blade. Let the blade cut its way into the material under normal guidance and feeding. Light steady pressure is all that is needed to advance the saw for accurate and rapid work.

Portable Electric Saws
Cut 10 Times Faster than Hand Saws

Producing-Type Mall Saws $54.95 to 135.00

Heavy-Duty Models. Designed to meet professional specifications of carpenters and contractors. For all types of continuous production jobs. For home framing, farm work, etc. Operate smoothly on greased scale ball bearings. Welded steel gear case enclosed in greased chamber. Extractor auto-mic swivels away from cutting line. WELL balanced long handle and triggering switch for right or left-hand control. Die-cast aluminum alloy housing. Automatic telescoping blade guides, 110-120-V. AC or DC. UL Approved. With 8-ft. Swire rubber cord and plug: wrench; combination crosscut-rip blade.

⅜-in. MALL SAW. Maximum cut at 90° is 2½ in. Bevel adjustment allows cuts up to 45°. See below for complete specifications. Metal carrying case and saw lubricant included. Shipped promptly from Chicago Factory.

84 WTP 8954K—Mailed Postpaid. Only $13.50 Down $135.00

⅝-in. MALL SAW. Maximum cut at 90° is 3½ in. Bevel adjustment for making cuts up to 45°. See below for complete specifications. Metal carrying case and lubricant included. Shipped promptly from Chicago Factory.

84 WTP 8953K—Mailed Postpaid. Only $20.50 Down ... $115.00

5-in. MALL SAW. Maximum cut at 90° is 2 in. Bevel cuts can be made with 3½-in. bevel shoe attachment listed separately at bottom of page. Without carrying case. See complete specifications below.

84 WTP 8955M—Mailed Postpaid from Stock. Only $5.50 Down $54.95

Portable Electric Saw Specifications

<table>
<thead>
<tr>
<th>Blade Diameter</th>
<th>Max. Cut at 90°</th>
<th>Min. Cut at 90°</th>
<th>Arbor Hole</th>
<th>No Load RPM</th>
<th>Full Load RPM</th>
<th>Rated HP</th>
<th>Actual Weight lbs.</th>
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</thead>
<tbody>
<tr>
<td>(A) ⅛-in.</td>
<td>7 ½ in.</td>
<td>2 ½ in.</td>
<td>¼ sq.</td>
<td>2500</td>
<td>1 ½</td>
<td>17/8</td>
<td>18/10</td>
</tr>
<tr>
<td>(B) ½-in.</td>
<td>3 ½ in.</td>
<td>2 ½ in.</td>
<td>¼ sq.</td>
<td>2500</td>
<td>1 ½</td>
<td>17/8</td>
<td>18/10</td>
</tr>
<tr>
<td>(C) 1/8-in.</td>
<td>2 ½ in.</td>
<td>2 ½ in.</td>
<td>¼ sq.</td>
<td>2500</td>
<td>1 ½</td>
<td>17/8</td>
<td>18/10</td>
</tr>
<tr>
<td>(D) 1/8-in.</td>
<td>3 ½ in.</td>
<td>2 ½ in.</td>
<td>¼ sq.</td>
<td>2500</td>
<td>1 ½</td>
<td>17/8</td>
<td>18/10</td>
</tr>
<tr>
<td>(E) 1/8-in.</td>
<td>3 ½ in.</td>
<td>2 ½ in.</td>
<td>¼ sq.</td>
<td>2500</td>
<td>1 ½</td>
<td>17/8</td>
<td>18/10</td>
</tr>
<tr>
<td>(F) 1/8-in.</td>
<td>3 ½ in.</td>
<td>2 ½ in.</td>
<td>¼ sq.</td>
<td>2500</td>
<td>1 ½</td>
<td>17/8</td>
<td>18/10</td>
</tr>
<tr>
<td>(G) 1/8-in.</td>
<td>3 ½ in.</td>
<td>2 ½ in.</td>
<td>¼ sq.</td>
<td>2500</td>
<td>1 ½</td>
<td>17/8</td>
<td>18/10</td>
</tr>
<tr>
<td>(H) 1/8-in.</td>
<td>3 ½ in.</td>
<td>2 ½ in.</td>
<td>¼ sq.</td>
<td>2500</td>
<td>1 ½</td>
<td>17/8</td>
<td>18/10</td>
</tr>
<tr>
<td>(I) 1/8-in.</td>
<td>3 ½ in.</td>
<td>2 ½ in.</td>
<td>¼ sq.</td>
<td>2500</td>
<td>1 ½</td>
<td>17/8</td>
<td>18/10</td>
</tr>
<tr>
<td>(J) 1/8-in.</td>
<td>3 ½ in.</td>
<td>2 ½ in.</td>
<td>¼ sq.</td>
<td>2500</td>
<td>1 ½</td>
<td>17/8</td>
<td>18/10</td>
</tr>
<tr>
<td>(K) 1/8-in.</td>
<td>3 ½ in.</td>
<td>2 ½ in.</td>
<td>¼ sq.</td>
<td>2500</td>
<td>1 ½</td>
<td>17/8</td>
<td>18/10</td>
</tr>
<tr>
<td>(L) 1/8-in.</td>
<td>3 ½ in.</td>
<td>2 ½ in.</td>
<td>¼ sq.</td>
<td>2500</td>
<td>1 ½</td>
<td>17/8</td>
<td>18/10</td>
</tr>
<tr>
<td>(M) 1/8-in.</td>
<td>3 ½ in.</td>
<td>2 ½ in.</td>
<td>¼ sq.</td>
<td>2500</td>
<td>1 ½</td>
<td>17/8</td>
<td>18/10</td>
</tr>
<tr>
<td>(N) 1/8-in.</td>
<td>3 ½ in.</td>
<td>2 ½ in.</td>
<td>¼ sq.</td>
<td>2500</td>
<td>1 ½</td>
<td>17/8</td>
<td>18/10</td>
</tr>
<tr>
<td>(O) 1/8-in.</td>
<td>3 ½ in.</td>
<td>2 ½ in.</td>
<td>¼ sq.</td>
<td>2500</td>
<td>1 ½</td>
<td>17/8</td>
<td>18/10</td>
</tr>
<tr>
<td>(P) 1/8-in.</td>
<td>3 ½ in.</td>
<td>2 ½ in.</td>
<td>¼ sq.</td>
<td>2500</td>
<td>1 ½</td>
<td>17/8</td>
<td>18/10</td>
</tr>
<tr>
<td>(Q) 1/8-in.</td>
<td>3 ½ in.</td>
<td>2 ½ in.</td>
<td>¼ sq.</td>
<td>2500</td>
<td>1 ½</td>
<td>17/8</td>
<td>18/10</td>
</tr>
<tr>
<td>(R) 1/8-in.</td>
<td>3 ½ in.</td>
<td>2 ½ in.</td>
<td>¼ sq.</td>
<td>2500</td>
<td>1 ½</td>
<td>17/8</td>
<td>18/10</td>
</tr>
<tr>
<td>(S) 1/8-in.</td>
<td>3 ½ in.</td>
<td>2 ½ in.</td>
<td>¼ sq.</td>
<td>2500</td>
<td>1 ½</td>
<td>17/8</td>
<td>18/10</td>
</tr>
<tr>
<td>(T) 1/8-in.</td>
<td>3 ½ in.</td>
<td>2 ½ in.</td>
<td>¼ sq.</td>
<td>2500</td>
<td>1 ½</td>
<td>17/8</td>
<td>18/10</td>
</tr>
<tr>
<td>(U) 1/8-in.</td>
<td>3 ½ in.</td>
<td>2 ½ in.</td>
<td>¼ sq.</td>
<td>2500</td>
<td>1 ½</td>
<td>17/8</td>
<td>18/10</td>
</tr>
<tr>
<td>(V) 1/8-in.</td>
<td>3 ½ in.</td>
<td>2 ½ in.</td>
<td>¼ sq.</td>
<td>2500</td>
<td>1 ½</td>
<td>17/8</td>
<td>18/10</td>
</tr>
<tr>
<td>(W) 1/8-in.</td>
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<td>2 ½ in.</td>
<td>¼ sq.</td>
<td>2500</td>
<td>1 ½</td>
<td>17/8</td>
<td>18/10</td>
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<tr>
<td>(X) 1/8-in.</td>
<td>3 ½ in.</td>
<td>2 ½ in.</td>
<td>¼ sq.</td>
<td>2500</td>
<td>1 ½</td>
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<td>18/10</td>
</tr>
<tr>
<td>(Y) 1/8-in.</td>
<td>3 ½ in.</td>
<td>2 ½ in.</td>
<td>¼ sq.</td>
<td>2500</td>
<td>1 ½</td>
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<td>18/10</td>
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<tr>
<td>(Z) 1/8-in.</td>
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<td>2 ½ in.</td>
<td>¼ sq.</td>
<td>2500</td>
<td>1 ½</td>
<td>17/8</td>
<td>18/10</td>
</tr>
</tbody>
</table>

*Saws with carterskis are listed on Page 26.*
Powr-Kraft Portable Electric Saws... 4½ to 8½-in. Models

MEDIUM-DUTY MALL SAWS 49.50 to 79.50


84 WTP 8928 M—Motor Postpaid Only $6 Down on Terms. Cash $35.50
84 WTP 9118 M—Steel carrying case for D. Ship. wt. 15 lbs. Cash $5.50
84 WTP 9119 M—Ball Bearing Saw. For straight, rafter and bevel cuts, house framing, etc. Full ball bearing construction—can handle all jobs except continuous production work. 5½ HP motor. AC or DC motor. UL Approved. Enclosed helical-cut gears in grease-sealed chamber. Trigger switch. Die-cast aluminum alloy housing. Telescoping blade guard. 10-ft. 3-conductor rubber cord, plug, wrench, and 6½-in. combination crosscut-rip blade. Bevel adjustment graduated at 15°, 30°, 45°. Depth adjusts 0 to 2½ in., 1½ in., 4½ in. Specifications on opposite page.

84 WTP 9292 M—Ship. wt. 12 lbs. Postpaid. 84 Down. Cash $35.50
84 WTP 8915 M—Motor Postpaid Only $6 Down on Terms. Cash $35.50
84 WTP 9275 M—Ship. wt. 9 lbs. 4 oz. Mailable. 83 Down. Cash $35.50

84 WTP 9935 M—Ship. wt. 9 lbs. 4 oz. Mailable. 83 Down. Cash $25.95

See next page for Hilt, Stanley, Black & Decker Saws and Complete Listing of Saw Blades

CONVERT YOUR 4½ OR 6½-IN. SAW INTO A BENCH SAW

COMBINATION SAW CASE AND TABLE. For 4½-in. saw (6) above. Handy carrying case opens out to make bench saw table. Saw fits easily in place to convert your portable electric saw into a bench saw. Table surface 21½x13¼ in. Maximum depth of cut is 13¼ in. at 90°, 1½ in. at 45°. Rip fence adjusts up to 11¼ in. from blade. Miter gauge fits in slot on either side of blade. Welded steel construction with full-length piano-type hinges. Includes rip fence, miter gauge, tool rest and switch lock for continuous operation. Saw not included; order (6) separately above.

84 WTP 8918 M—Ship. wt. 13 lbs. Mailable.................. $8.69

84 WTP 8920 M—Portable Saw—Bench Saw Outfit. Does work of both portable and bench saw. Portable saw can be rapidly converted to bench or floor model saw by placing beneath table and tightening five screws. Heavy steel table top is 16x21½ in. Distance ahead of blade 4¼ in. Adjusts rip fence extends full length of table. 10-in. miter gauge graduated to 65° in both directions. Saw, when bolted to table, has cutting capacity of 1¾ in. at 90°, 1½ in. at 45°. Bench model table (K) is 11 in. high; floor model table is 16 in. high. Available with or without 6½-in. lightweight Powr-Kraft portable saw described in (6) above.

84 WTP 8931 M—Bench Table Only; without saw. Ship. wt. 25 lbs. $45.00 Down...Cash $45.50
84 WTP 8932 Y—Bench Table Only; without saw. Ship. wt. 12 lbs. $9.75
84 WTP 8932 M—Floor Table Only; without saw. Ship. wt. 25 lbs. $45.00 Down...Cash $45.50
84 WTP 8932 A—Floor Table Only; without saw. Ship. wt. 12 lbs. $9.75
Stanley, Black & Decker, Skil Electric Saws

NEW STANLEY 7-IN. PORTABLE ELECTRIC SAW 72.00


84 WTP 8990 MT—Mail order. Only $7.50 Down on Terms. Cash $72.00

BLACK AND DECKER 6 AND 7-IN. SAWS 64.50 AND 84.50


(N) 84 WTP 8777 MT—7-in. model. Postpaid. Only 8.50 Down. Cash $84.50

(P) 84 WTP 8777 MT—6-in. model. Postpaid. Cash $64.50

Note: Items above in Catalog Number ending in MT shipped promptly from Stock in Chicago or Baltimore; orders from your regular Mail Order House.

PORTABLE ELECTRIC SAW BLADES FOR POWER-KRAFT, MALL, SKIL, BLACK AND DECKER AND OTHER NATIONALLY KNOWN SAWS

"SAFETY" Combination 8-Tooth Saw Blade. Wards Master (Best) Quality. Teeth project slightly from cutting edge for controlled cut. Sides from kickback, have longer life and require less sharpening. Important: Universal holes (as shown) fit Power-Kraft, Thor, Skilwor, Black & Decker, Mall (except 7 in.), Cunia, Wapwa Saw. Order at right. Rake, 0.45°.

CARBIDE-TIPPED SAW BLADES. Wards Master (Best) Quality. Last 25 times longer than ordinary blades between sharpenings. Tungsten carbide tips silver brazed to blades, diamond wheel ground to close tolerances. Cut tranite, Formica, plastics, etc. On 84 WTP 6963 L, 6-in. size has 12 teeth, 8-in. has 16 teeth. On 84 WTP 6964 L, all have 8 teeth. Rake diameter.

CARBONSTEEL "MCX" Cut-Off Wheel. Silicon carbide abrasive for quick, clean cutting of non-metallics such as brick, concrete, tile, etc. Makes construction and remodeling work faster and easier. Wheels are cloth reinforced and will not chatter. 3/4-in. thick. Order from table at right. Rake: 45°.

COMBINATION SAW BLADES. Wards Master (Best) Quality. Crosscut rip-miter, first ground, heat treated and tempered steel, hand filed and set. Order from table at right. Blades for Black & Decker, Porter-Cable and Skilwors are shipped promptly from Factory near Buffalo, New York. Pay postage from there, otherwise: ordered from Stock. Rake diameter.

NAIL-CUTTING SAW BLADES. Wards Master (Best) Quality. For cutting occasional imbedded nails in lumber. Heat treated steel, hand filed and set. Order from table at right. Rake diameter.


<table>
<thead>
<tr>
<th>Catalog No.</th>
<th>Diameter</th>
<th>Teeth</th>
<th>Rake</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>84 WTP 6963 L</td>
<td>6 in.</td>
<td>12</td>
<td>0.45°</td>
<td>84 WTP 6964 L</td>
</tr>
<tr>
<td>84 WTP 6964 L</td>
<td>8 in.</td>
<td>16</td>
<td>0.45°</td>
<td>84 WTP 6965 L</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Catalog No.</th>
<th>Diameter</th>
<th>Teeth</th>
<th>Rake</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>84 WTP 6967 L</td>
<td>6 in.</td>
<td>15</td>
<td>0.45°</td>
<td>84 WTP 6968 L</td>
</tr>
<tr>
<td>84 WTP 6969 L</td>
<td>8 in.</td>
<td>15</td>
<td>0.45°</td>
<td>84 WTP 6970 L</td>
</tr>
</tbody>
</table>
Powr-Kraft Saber Saws... Mall Electric Impact Tool

**PORTABLE POWR-KRAFT SABER SAW** 52.50 and 124.50

- Powerful reciprocating-type hand saws—cut with amazing speed. Can be used in these three ways: bare images appear to be pictures at right. (a) For crosscutting. (b) For hole-cutting. Light-duty model has blade with patented joint for cutting directly through material without drilling. Maker is good for starting work, blade increases material and starts cut in one operation. (c) For pattern marking; handles easily and smoothly. Good balance—lets you guide saw with one hand.

- Precise and accurate work. Especially adapted for wood curving, pattern marking, hobby work, cabinet work and many other tasks. Fast and smooth cutting Swedish spring tempered steel saw blades will cut wood, plywood, plastic, bone and glass materials with ease. Sealed ball bearings in bearing for smooth, quiet operation. Saws operate on 110-120 volts, AC or DC. Both saws are complete with three special Swedish steel blades, screwdriver, rubber-covered cord and plug, third wire for ground. Choose at heavy or light-duty model saber saw.

**HEAVY-DUTY SABER SAW 124.50**

- Designed for professional carpenters, plumbers, electricians, display and maintenance men. Does wood curving, pattern marking, cabinet work, etc. Larger, more powerful, greater capacity than saw on right. 40-HP ball-bearing motor. Precision ball and needle bearings. No-load speed of 14,000 RPM produces 2500 blade strokes per minute. Cuts through materials up to 4 inches thick with smooth, steady stroke. Push button switch provides finger-tip control. 6 saws in 1. Does work of rip, crosscut, keyhole, coping, scroll and hand saws. Actual weight only 6 1/2 lbs. Ship. wt. 9 lbs. 84 WT 9801—$12.50 Down. Cash $124.50

**LIGHT-DUTY SABER SAW 52.50**

- Designed for workshop, display and light carpentry use. Extremely versatile—does ripping, coping, jig and scroll sawing, jointing, circle cutting, etc. Ideal for precision work that requires close control. Useful for rough cutting. Cuts hard and soft woods, plywood, plastics, terrains and non-ferrous metals, fiberglass, etc. up to 1 in. thick. (Saw easily becomes a table saw by attaching to accessory table (1) in the next column).

1/10-HP ball-bearing motor. Needle bearings in gear head. Olives bearings on reciprocating shaft. Saw cuts cleanly and smoothly with amazing speed. 2500 strokes per minute. Cotter 1/4-in. radius turn. Convenient push-button switch for instant on-off control. Lightweight, weighs only 3 1/2 lbs. Perfectly balanced...you can guide saw with one hand while other hand is free to steady work. Ship. wt. 5 lbs. 84 WT 8901—$5.50 Down. Cash $52.50

**COMPLETE SABER SAW KIT 84.50**

- Powr-Kraft saber saw with bench saw table and complete group of accessories. Save $6.10 over individual prices of items. Kit includes same top quality saber saw (B) fully described at left.

- Accessories include: Aluminum Table (1) with removable rip fence and miter gauge for straight or angle cutting. Adjustable clamps hold saw in position; saw can be inserted with removing blade. Jointer Attachment (2), for use with table, takes wood up to 3/4 in. wide and smaller width in 1/4-inch multiples. Circle Cutter (4), for freehand circles 2 to 18-in. diameter, or 2 to 12-in. circles with table. Protractor and Saw Guide (A) is easily set for angle of cut. Special Saw Lubricant (5), Knife Blade (6), cuts heavy paper and cardboard, Blade for Metal (7), cuts thin terrains and non-ferrous metals. Wood-cutting Blade also included. Ship. wt. 23 lbs.

- 84 WT 9902 M—$65.50 Down Cash [36.50]

1) SAW TABLE. Fits Saber Saws (A, B). 84 WT 9904 M—Ship. wt. 13 lbs. ...$14.95

2) JOINTER ATTACHMENT. Cast iron. 84 WT 9910 M—Ship. wt. 14 oz. ...$7.95

3) CIRCLE CUTTER. Makes perfect circles. 84 WT 9905—Ship. wt. 1 lbs. ...$3.50

4) PROTRACTOR AND SAW GUIDE. 84 WT 9909—Ship. wt. 1 lbs. ...$0.50

5) SABER SAW LUBRICANT. 2-oz. size. 84 WT 9903—For (B). 8 oz. ...$0.30

6) 84 WT 9907—Knife Blade. Ship. wt. 1 oz. ...$0.30

7) METAL AND WOOD-CUTTING BLADES. Ship. wt. 1 oz. each. 84 WT 9905—For Metals. ...$1.25; 84 WT 9902—For Wood. ...$0.50

**MALL PRODUCTION-TYPE ELECTRIC IMPACT TOOL FOR TIGHTENING AND REMOVING NUTS 130.00**

- Fast-working portable tool with Mall "work-hammer" action for factories, garages, filling stations, etc. Powerful rotary impacts for tightening or removing operations. Power and speed for running up to 6,000,000, due to universal type electric motor is reversible. Will not shift, slip clutch permits motor to run free even machine. Universal type electric motor is reversible. Will not shift, slip clutch permits motor to run free even if driven by rope. Motor operates on 110-120 volts, 60 cycle AC or DC. UL Approved. Free spindles adjust to 1500 RPM. Hammer is willed in case for hard-turning bearings for longer wear. Light-weight yet plenty tough; weighs only 7 lbs. Aluminum alloy housing. Size: overall, 11 in. long, 3 in. wide. Ideal for close quarters. Contour pistol grip and trigger switch for balanced control and instant power response. Includes 10 ft., 18-ga. heavy rubber cord, three-conductor type with grounding wire. Accessories listed below. Postpaid.

- 84 WTP 9925—$13 Down ...or Cash $130.00

**JACOB'S TAP CHUCK.** Converts Impact Tool into drill for reaming, tapping, drilling, etc. Capacity 9/32 to 1/2 in. Wrench included.

- 84 WTP 9930—Postpaid. ...$13.00

**IMPACT SOCKET SET.** Includes all sizes above. 84 WT 9900—Ship. wt. 4 lbs. ...$14.95

**WARD'S MONTHLY PAYMENT PLAN: SEE PAGE 49.**

www.OzarkToolManuals.com
Choosing the Correct Portable Electric Drill For Your Needs

Most popular of all portable tools, the Electric Drill has become a favorite of workshop enthusiasts because of its speed and power, and its time and labor-saving ability. It is light in weight and compact; can be carried right to the job. The wide range of accessories which are available make it a "portable workshop."

Selection of a drill should be guided by (1) the amount of work to be done and (2) the type of work. If work will consist mostly of occasional, intermittent jobs in home or shop, a light or medium-duty drill with bronze bearings will fill your needs. However, if you plan to use it on production or repair or garage jobs requiring continuous operation you need a heavy-duty model, with ball bearings to absorb the punishment of constant daily use.

The type of work you do will determine the capacity of your drill. Capacity is the diameter of the largest size shank the chuck will take. For most work, use a 1/4"-in. capacity drill will be satisfactory, but for heavier work a 3/4" or 3/4"-in. capacity is needed, with the 3/4"-in. size being one of the most popular models.

Other Desirable Features. The chuck is a most vital part of any drill. Three main types are in use; (1) the "keyless" chuck, which is operated and released manually, usually found on light-duty models only; (2) the hex type, operated by use of a hex shaped key (similar to that used in t-hand screwdrivers); and (3) the geared type chuck, operated by a separate chuck key, which gives an exceptionally tight hold, yet permits quick release or removal by hand. Drills should be compactly built in order to get into tight corners, yet should have sufficient power to operate to full capacity. It should be light in weight so it can be easily handled in any position without fatigue. Comfortable hand grips are needed with a convenient on/off switch having a locking arrangement for continuous running. Underwriters' Laboratory approval on a drill is your assurance that it has been inspected and checked for safety and absence of fire hazard.

Uses of the Electric Drill. Literally dozens of attachments and accessories are available which add much to its versatility. Consider buying your electric drill in a "kit" containing some of the most useful accessories, together with a handy carrying case. Additional more specialized accessories can then be added as needed.

Sending the Electric Drill. One of the most important uses of the drill, since it can do this tedious work many times faster than it can be done by hand. Other uses include: polishing, buffing, grinding, sharpening, routing, screwdriving, wire brushing, hole cutting, paint mixing, sawing, hedge trimming, rock sawing and metal shearing.

A WARDS POWR-KRAFT ELECTRIC DRILL FOR EVERY JOB

For the hobbyist, the garage or shop or the factory, Wards have a Powr-Kraft Electric Drill to fill the job. Powr-Kraft drills feature the latest in design and engineering plus the finest workmanship, and are available in a variety of sizes and models for every need. All have strong but lightweight die-cast aluminum alloy housings with heat-treated alloy steel gears for long service. Powerful universal-type electric motors are designed to operate on 110-120 volts AC or DC and all are approved by Underwriters' Laboratories. Forced air ventilation keeps drills from overheating. Easily cleaned and serviced. Knurly lock-type trigger switches on grip allow continuous operation. Complete with rubber-covered cord and plug. All Powr-Kraft drills Mailable.

LIGHT AND MEDIUM-DUTY 14.50 to 22.95

POWR-KRAFT LIGHT-DUTY DRILLS. Streamlined 1/4"-in. models for intermittent use on wood and metals by home craftsmen and hobbyists. Self-lubricating bronze sleeve bearings. Capacity 1/4"-in. in steel, 1/4"-in. in wood. Choice of keyless or geared chuck. No-load speed 1600 RPM, full-load speed 1000 RPM. Comfortable steady palm grip for extra ease in operation. Length overall 8 1/2" in.

(2) 1/4"-in. Drill with Keyless Chuck. Cast aluminum housing has no glare satin finish. 64 WT 9237—Ship. wt. 4 lbs. ........... $14.50
(3) 1/4"-in. Drill with Gear-Type Chuck. Housing has mirror finish. With chuck key. 64 WT 9226—Ship. wt. 4 lbs. ........... $17.75

POWR-KRAFT MEDIUM-DUTY DRILLS. Especially designed for utility use in home or shop, garage, etc., on all types of wood or metals. Bolt and bronze bearing construction. Self-lubricating bronze bearings on spindle for smooth, quiet operation, with ball bearings at points of greatest strain. Capacity 1/4"-in. in steel, 3/8"-in. in hardwood. High quality 3-jaw geared-type chuck, with key. No-load speed 1500 RPM, full-load speed 1000 RPM. Available in choice of palm or spade grip. Satin finish housing. Shipping weight 4 lbs.

(4) 1/4"-in. Palm Grip Drill. 8 1/4" long. 64 WT 9235—$2.50 Down .......... Cash $22.95
(5) 1/4"-in. Spade Grip Drill. 10 1/4" long. 64 WT 9234—$2.50 Down .......... Cash $22.95

Powr-Kraft Electric drills are available on Wards Monthly Payment Plan. See Page 48.

HEAVY-DUTY DRILLS 29.50 to 34.50

POWR-KRAFT 1/4"-in. HEAVY-DUTY DRILLS. Meets Government Specifications WD-561, Navy 6773 and MIL-885. Full bolt bearing construction, built for continuous production or workshop use. Run smoothly with minimum bearing on grease sealed ball and needle bearings at all points of strain. Capacity 3/4"-in. in steel, 1 1/4"-in. in wood. 3-jaw geared type chuck with key. No-load speed 1800 RPM, full-load speed 1000 RPM. Rubber-covered cord has third wire for grounding, is reinforced at point of strain. Mirror finish housing.

(6) 1/4"-in. Palm Grip Drill. 8 1/4" long. 84 WT 9235—Wt. 4 lbs. $3.50 Down, Cash $33.95
(7) 1/4"-in. Spade Grip Drill. 10 1/4" long. 84 WT 9230—Wt. 4 lbs. $3.50 Down, Cash $33.95

POWR-KRAFT 1/4"-in. HEAVY-DUTY DRILLS. Large capacity models for heavy construction, repair and maintenance work on metal or wood. Provides plenty of power for the toughest jobs. Oil retaining bronze bearings with ball thrust bearing on spindle, 4-in. capacity in steel, 1-1/2" in wood. Your choice of hex or gear type chuck. No-load speed 450 RPM, full-load speed 300 RPM. Two side handles top handle removable for close corner drilling; lower handle forms pistol grip. Cord has third wire for grounding. Size 13"x4 1/4"x4 1/4" in. Housings have mirror finish. Shipping weight 11 lbs.

(8) 1/4"-in. Drill with Gear-Type Chuck. 84 WT 9233—$3.50 Down .......... Cash $34.95
(9) 1/4"-in. Drill with Hex-Type Chuck. 84 WT 9230—$3 Down .......... Cash $29.50

SEE PAGES 30 TO 33 FOR WARDS COMPLETE LISTINGS OF ACCESSORIES FOR ELECTRIC DRILLS
Poewr-Kraft, Mall, Fairchild, Stanley, Black & Decker

STANLEY, BLACK & DECKER AND FAIRCHILD DRILLS 25.00 TO 49.95

Choose a medium or heavy-duty drill from Ward's wide selection of nationally known makes. All drills below have the following features: Strong but lightweight die-cast aluminum alloy housings—polished finish. Universal motors operate on 110-120 volt AC-DC. UL Approved. Sturdy dependably geared-type chuck. Trigger switch with lock for continuous operation. Rubber-covered cord with third wire for grounding.

STANLEY HANDYMAN 1/4-IN. ELECTRIC DRILL. Medium-duty model with oil-imregnated bronze bearings and hardened steel thrust washer. Capacity 1/4-in. in steel, 3/4-in. in hardwood. Alloy steel gears. 3-jaw geared chuck. No-load speed 1800 RPM, full-load speed 1100 RPM. Comfortable, sturdy palm grip. Length 9 1/2 in. See shipping information below.

84 WTP 9308 T—Act. wt. 1 lb. Mailed Postpaid. $2.50 Down. Cash $25.00


94 WT 9368M—Act. wt. 1 lb. Mailed Postpaid. $1.50 Down. Cash $14.00


84 WTP 9397 M—Act. wt. 1 lb. Mailed Postpaid. $3 Down. Cash $49.95

*Drills (J), (L) and (M) listed above Mailed Postpaid from Chicago, Baltimore, or Oakland. Order from your regular Mall Order House.

Hints on Care and Use of Your Drill

It is important that you operate your drill at the stated voltage. It is used on a low voltage line, drill will lock power, will run slow and heat up, it used on a high voltage line, drill will run too fast and motor may overheat.

When drilling at considerable distance from power outlet, do not use less than 16-gauge rubber insulated extension cord. See cord at right.

Overloading your drill or using a light or medium-duty electric drill for continuous operation will put a strain on the motor, shortening its life. When drilling through thicker materials, use the proper caving size in keeping the drill bit cool and prevents dangerous chipping, making drilling easier.
Power Tools” For Home, Shop or Production Use

[Description of the content]
30 Handy Attachments and Accessories to Increase

**MILL RECIPROCATING SAW**
For quick cutting of wood, metal and plastic. Freshly rused through stock up to 2 1/2 inches thick. Ideal tool for sawing nails, cable, conduit pipe, etc. 3/4 inch stroke. Operates at one half drill speed. Heavy die-cast aluminum housing. Finish in 5/16ths. Gross weight is only 2 lbs.

**MILL KNIFE SHARPENER**
For nuttin quick, keen edges on dull blades—knives, scissors, etc. Hones blades. Center is crooked, fits any 1/4-inch drill chuck.

**DILL HOLD SAW ATTACHMENT**
Cuts holes in any stock—wood, plastic, soft metals to 3/4-inch. With four high-carbon steel blades, 1, 2, 3, 1/2-inch. Light bit, rugged aluminum cover with satin finish. Fits any 1/4-inch drill. Priced

**HEDGE TRIMMER ATTACHMENT**
Converts any electric drill with 41/4 inch or larger chuck into a working garden tool. Quickly, easily clips shoots, small branches, vines, vines, hedges and lawn edges, etc. Tempered chrome-alloy steel blade—cuts in both directions. 10 1/4-inch blade has 9 31/2-inch cutting edge, 11 1/4-inch swing openings. Operates at 500 to 2500 RPM.

**DILL ARBOR**
1/4-inch shank. Telescoping bushing fits 1/4, 3/16, 5/32 holes. 2 inch long. Priced

**HACKSAW ATTACHMENT**
Fits any 4 1/2-inch. Chuck. Operates at 800 RPM or greater speed. Cuts to 1/16-inch in wood; use only on light gauge metals. Weighs only 11 oz., folds to 1 3/4 x 4 1/2 inches. In case 3-inch woodworking blade.

**DILL HORIZON DRILL STAND**
Universal-type. Converts any 1/4-inch drill into easy-to-operate, accurate drill press. Drills held rigidly by clamp at top of stand. Drills to center of 6-inch, circle, spindle travels 1/4-inch. Sturdy tubular steel column, cast-iron base. Combination table 6 1/2 x 4 1/2 inches. Has 5- to-1 handle leverage to provide ample pressure for deep drilling. Sturdy spring keeps drill raised when not in use. Holes in base for permanent mounting on bench or wall.

**DILL-DRIVER NEW POWER SCREW DRIVER**
Power drives screws faster and easier—ten times faster than by hand. Attach to any 1/4-inch chuck. Drives wood, machine, cup, sheet metal screws, bolts and nuts. Includes one screwdriver bit and special 1/4-inch connector to use 1/4-inch square drive sockets, etc. Used by house painters, construction shops, electricians, etc.

**DILL VERTICAL 1/4-INCH DRILL STAND**
Converts drill (54 WO 25) or (84 WO 25) to a 1/4-inch drill press. Drills to center of 6-inch circle, spindle travels 1/4-inch. Sturdy column, precision bearings. Holders can be turned 360°. Raised to 10 inches, lowers to 7 inches. Will mount on bench or wall for right or left-hand operation. Anti-tilt feature.

**DILL "SPLIT-A-SHUSH" ATTACHMENT**
Converts any 1/4-inch, larger drill into speedy point brush cleaner. Cleans brushes quickly and easily in just 20 seconds. 1/4-inch, dieml, shank. Priced

**DILL-DRIVER HORIZON DRILL STAND**
Universal-type. Converts any 1/4-inch, drill into easy-to-operate, accurate drill press. Drills held rigidly by clamp at top of stand. Drills to center of 6-inch, circle, spindle travels 1/4-inch. Sturdy tubular steel column, cast-iron base. Combination table 6 1/2 x 4 1/2 inches. Has 5- to-1 handle leverage to provide ample pressure for deep drilling. Sturdy spring keeps drill raised when not in use. Holes in base for permanent mounting on bench or wall.

**DILL 1/4-INCH DRILL STAND**
Universal-type. Converts any 1/4-inch, drill into easy-to-operate, accurate drill press. Drills held rigidly by clamp at top of stand. Drills to center of 6-inch, circle, spindle travels 1/4-inch. Sturdy tubular steel column, cast-iron base. Combination table 6 1/2 x 4 1/2 inches. Has 5- to-1 handle leverage to provide ample pressure for deep drilling. Sturdy spring keeps drill raised when not in use. Holes in base for permanent mounting on bench or wall.

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Universal-type. Converts any 1/4-inch, drill into easy-to-operate, accurate drill press. Drills held rigidly by clamp at top of stand. Drills to center of 6-inch, circle, spindle travels 1/4-inch. Sturdy tubular steel column, cast-iron base. Combination table 6 1/2 x 4 1/2 inches. Has 5- to-1 handle leverage to provide ample pressure for deep drilling. Sturdy spring keeps drill raised when not in use. Holes in base for permanent mounting on bench or wall.

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Universal-type. Converts any 1/4-inch, drill into easy-to-operate, accurate drill press. Drills held rigidly by clamp at top of stand. Drills to center of 6-inch, circle, spindle travels 1/4-inch. Sturdy tubular steel column, cast-iron base. Combination table 6 1/2 x 4 1/2 inches. Has 5- to-1 handle leverage to provide ample pressure for deep drilling. Sturdy spring keeps drill raised when not in use. Holes in base for permanent mounting on bench or wall.
the Usefulness of Your Portable Electric Drill

MALLO RECIPROCATING SANDER ATTACH-... MOUNT. Converts your portable electric drill to an efficient, labor-saving sander—fits any 1/4-inch chuck. Approx. 24 sq. in. sanding area. Easily removes paint or varnish—use for sanding walls, floors, bricks, workshop projects—use at factory for general sanding work. For any type of sanding from coarsest surfacing to fine work on wood, metal, stone, tile or concrete. Made of magnesium and aluminum alloy for light weight.

84 WTP 9292—Mailed Postpaid...$16.50

DRILL LEVEL ATTACHMENT. Easily attaches to any 1/4-inch electric drill. Perfect for drilling true vertical or horizontal holes, for making multiple holes at the same angle and for doweling or lining up work accurately. 84 WTP 9358—Ship. wt. 5 oz. ...$3.95

84 WTP 9298—Mailed Postpaid from Chicago Factory. 84 WTP 9286-K. $3.50 Dn. Cash. $3.50

POW-KRAFT 1/4-INCH DRILL STAND. Converts Pow-Kraft drill (84 WTP 9228M and 84 WTP 9230M, Page 28) into easy-to-operate drill press. Drills to center of 6 inch round; spindle travels 4 1/2 in.; 3-1/2 handle lever gives ample pressure for drilling. Bracket adjustable for height and radial position; regulates depth. Steel column; aluminum base. 84 WTP 9256M-Ship. wt. 8 lbs. 8 oz.$18.95

DRILLING LUBRICATION HINT
For best drilling results use these lubricants: Hard Steel, turpentine or kerosene; Soft Steel, kerosene; Aluminum and alloys, kerosene; Brass, dry or paraffin; Cast Iron, dry or air blast; Die castings, dry or kerosene.

See page 23 for complete selection of sanding belts, sheets and discs for all accessories above.
Portable Power Sanders

Speed Tedium Sanding Tasks

If you plan to put any kind of a finish on your woodworking or home improvement projects you'll have to do some sanding. The final result depends on how good a sanding job you do. Critical craftsmen know that sanding is an operation that cannot be rushed—yet it takes time. That's why hand sanding is sometimes thought of as a boresome, tiresome task.

Power Sanders will speed your work. You can save hours and hours of tedious hand labor—do the job in about 1/10 the time. And the consistent sanding motion of the power sander will also give your work that line professional appearance that makes the most simple job look finished. Sanders are usually classified according to the type of stroke produced.

Magnetic-Vibrator Type Sanders produce quick, short strokes with either a straight-line or double-arc vibrating motion. They are especially designed for fine finishing work and are ideally suited for sanding between finishing coats of shellac or varnish. After the final coat is applied they can be used with soft pads for polishing and buffing on wood or metal. Units are not affected by dust and dirt—require very little care. All are extremely light-weight—easy to operate. View (1) above shows the Magnetic-Vibrator type sander in use. Sanding at a door. View (2) illustrates the area unit in operation as a polisher on a small table. Use for woodworking, buffing, etc.

Oscillating Sanders duplicate the circular motion of hand-sanding. This unique motion is faster, more efficient than most straight-line motions and permits use of the orbital sander for both finishing operations and fast removal work. They can also be used for polishing and buffing on wood or metal. These features make the orbital sander ideal for all-around sanding utility in the home or woodworking shop. Sanders of this type are usually powered by rotary motors. View (3) shows the orbital sander removing imperfections on a sheet of plywood.

*For smoothest finishing, when sanding with the grain, a straight-line motion is best. However, this stroke is not quite so fast as others.

Rotary Sanders spin a sanding disc with powerful rotary action—giving fastest cutting motion nearest edge of disc. Fast action makes this type sander most efficient for heavy removal on wood or metal. Used extensively for automobile body work, including buffing operations. Can be easily adapted for use on a Power Drill with Jacobs chuck. Especially recommended for the workshop enthusiast who wants added versatility. Air-cooled universal type motors provide direct rotary power. View (4) shows sanding use on metal cabinet. View (5) shows buffing on automobile body.

But Sanders have a continuous straight-line stroke that makes full contact with the sanded surface over a wide area. These characteristics help in adapting the belt sander to heavy removal work and in sanding surfaces that are large and more or less flat. Belt Sanders are often used for sanding boat hulls, decks, floors, and walls. Small belt Sanders are very useful for minor sanding jobs on flat surfaces such as tables, window sills, floors, etc.

Universal type electric motors with breeding constructed drive systems power the sanding belt. See View (6) which illustrates the belt sander on table-sanding project.

Nationally Known Portable

Magnetic-Vibrator Sanders 12.95 to 24.50

Wards offer a wide assortment of these finishing Sanders. All are complete compact units capable of producing smooth finishes on all stained and varnished surfaces. Each has been designed for sanding and polishing operations in tight places, on flat, concave or irregular areas. They are used for finishing varnished wood surfaces such as furniture, interior doors, window sills, and woodwork. Also excellent for smoothing minor scratches on small sparkled holes or plaster cracks. Sand with or across wood grains. Units require no lubrication or further service—pay no attention to any accumulation of dust—does not impair operation. You can also use these Sanders as vibrating-massaging units. Pushing button is just right for relaxing tired muscles. All are light in weight and extremely easy to use—just flick handy on/off switches. Operate on 110-120 volt AC only. Select the size and model suited to your needs.

A Power Kraft Sander With Case 13½-in. sanding platen with straight-line motion and self-loading action—length of stroke increases with slight pressure. Full surface contact. Self-tightening clamp makes abrasive changing easy. Lightweight plastic body weighs only 2½ lbs. Complete with 6 sanding sheets (8½ x 2½ in.), polishing cloth, sanding disk, and plug. UL Approved.

B 12.95

84 WT 8512—In compact metal case. Shipping weight 5 lbs. $13.95

84 WT 8513—Extra Sanding Sheets. Asst. grits, accessories, etc. 8 wt. oz. 12 for 20¢

C NATIONALLY OWNED SYNCRO-SANDER, 12-in. sanding platen has unique double-arc motion that throws off canted dust, prevents clogging on sanding sheet. Same action also increases actual sanding area. Spring type clamp holds sanding sheets tight. Gray enameled metal and plastic body weighs just 4½ lbs. Includes 12 sanding sheets (3½ x 7 in.), 2 polishing pads—fabric and lambswool. With rubber covered cord, plug. UL Approved.

84 WTP 8520—Mailled Postpaid. $2 Down on Terms... Cash $19.95

84 WT 9352—Extra Sanding Sheets. Asst. grits, accessories, etc. 8 wt. oz. 12 for 20¢


84 WTP 8516—Mailled Postpaid. $2.50 Down on Terms... Cash $24.50

84 WT 8533—Extra Sanding Sheets. Asst. grits, accessories, etc. 8 wt. oz. 12 for 20¢


84 WT 8517—Shipping weight 6 lbs. $16.95

84 WT 8518—Extra Sanding Sheets. Asst. grits, accessories, etc. 8 wt. oz. 12 for 20¢

See page 14 for listings of bench type Sanders powered by separate motors.
Electric Sanders for Every Type of Sanding Job

**ORBITAL SANDERS 34.50 TO 49.95**

Orbital Sanders will produce beautiful finely finished work, give uniform results superior to the best hand finishing in 1/10 the time. Unique oscillating motion is efficient on walls, doors, stairways, interior woodwork, cabinetwork, boot decks, etc. Recommended for refinishing old furniture—leaves no renewing points. Also for heavy removal work. Tackles heavier jobs such as removing paint, imperfections and may be used with either wet or dry abrasives. All are UL Approved.

**BLACK AND DECKER SANDER** 30 sq. in. of sanding area. Sanding shoe moves on greased wooden ball bearings. Plate extends beyond body for work in close quarters. Abrasive lock lets you change sanding sheets easily. Equipped with lock-on trigger switch on auxiliary knob handle—use at front or on side position. Heavy-duty ball bearing motor. 110-120 volt, AC-DC. With 6 sanding sheets (254 sq. in.), rubber-covered cord, plug.

84 WTP 8505—Postpaid. $5 Down... Cash $49.95

**NEW POW-R-KRAFT DUAL PLATE SANDER** 30 sq. in. of sanding area. Two entire differently-stroke strokes at the price of one. Interchangeable platen converts from oscillating motion (for removal work) to straight-line motion (for finishing). Both strokes effective on wood or metal. Heavy-duty ball bearing construction. 110-120 volt, AC-DC. For use on aluminum housing—weight only 5 lbs. With handle and slide switch. 9 sanding sheets (923 sq. in.). Rubber-covered cord and plug. Mailable.

84 WTP 9511M—Wt. 7 lbs. 8 oz. $4 Down... Cash $39.95

**ABRASIVES FOR (E) (F) ABOVE.** Wt. 8 oz.
84 WTP 8503—Steel Fine, Medium, Coarse. 12 for 49c

**SPEEDWAY Sander.** 30 sq. in. of sanding area. Sanding shoe travels on 4 oversized Neoprene wheels. Given fast operation with minimum vibration and torque. Pad makes 3/8-in. circle of 3450 RPM. Smooth oscillating action, free from grooves, scratches or reversing points. Tension spring abrasive clamp—sure, tight grip. Front knob handle is removable for close work. Heavy-duty ball bearing motor operates on 110-120 volt, AC. Chrome cast aluminum housing is extremely lightweight in weight. With 1 sanding sheet (4x6x6 in.). Rubber-covered cord and plug.

84 WTP 8510—Postpaid. $3.50 Down... Cash $34.50
84 WTP 8502—Abrasives. Wt. 8 oz. 12 for 39c

**ROTARY DISC SANDERS 21.95 TO 42.95**

Powr-Kraft and Mall Sander-Polishers are ideal for heavy removal work and high-speed buffing applications. Used extensively by automobile body work by car-owners, garage men and small auto-shops. Powerfully—easily converted to power drills with chucks (see K) listed below. Dozens of working attachments are available. Highly versatile units, recommended for the car-owne, hobbyist, and home-owner alike. All Sander-Polishers listed below have lightweight aluminum alloy housings, efficient belt cut four years, air-cooled motors and convenient lock-on trigger switches. Operate on 110-120 volt, AC-DC.

**NEW POW-R-KRAFT 6-IN. SANDER-POLISHER.** Especially designed for utility use by home craftsmen, car-owners, hobbyists. Self-lubricating bronze bearings, ball thrust on spindle. Freewheel speed 1800 RPM. With rubber pad, sheepswool bonnet, 6 assorted sanding discs (4-in. diam), auxiliary handle, cord, plug. UL Approved. Mailable.

84 WTP 8505 M—Ship. wt. 6 lbs. $2.50 Down... Cash $21.95

**MALL 7-INCH SANDER-POLISHERS.** Nationally known quality, Light and heavy duty.

**HEAVY-DUTY Model.** (Shown). Has grease-sealed ball bearing construction for continuous use. Freewheel speed 600 RPM. With rubber backing pad, sheepswool bonnet, 4 assorted sanding discs (7-in. diam), palm-length auxiliary handle, plastic polish, rubber-covered cord and plug. UL Approved.

84 WTP 8505 M—Postpaid. $4.50 Down... Cash $43.95

**LIFT-DUTY Model.** (Not shown but like above). Self-lubricating bronze bearings for intermittent use. Freewheel speed 2000 RPM. Includes rubber backing pad, polishing bonnet, 3 assorted sanding discs (2½-in. diam.), and auxiliary knuckle handle. With rubber-covered cord and plug. UL Approved.

84 WTP 8505 M—Postpaid. $3.30 Down... Cash $31.50

**ALUMINUM OXIDE SANDING DISCS FOR SANDERS ANVIL.** Steel Fine, Medium, Course or Extra-Coarse. 84 WTP 9407—6-in. diam. Ship. wt. 6 ozs. ...5 for 39c
84 WTP 8503—7-in. diam. Ship. wt. 8 ozs. ...5 for 39c

**GEARED CHUCKS.** For converting sanders above to Power Drills. #4234 thread. With key.
84 WTP 8304—1/4-in. (Jacobs) for 31c, Postpaid. 649
84 WTP 8504—1/4-in. (Jacobs) for 10c, Postpaid. 649

**BELT SANDERS 24.95 AND 79.50**

Two nationally known belt-sanders, among the finest in their price field. Both utilize proven double drum construction features with positive chain-drive power. Continuous straight-line motion is most effective for sanding tables, floor, boot decks and hulls, or other large surfaces. Ten times faster than belt sanding.

Powr-Kraft marine motors are fan cooled. Built of die-cast aluminum alloy metal, the housings are extra strong—yet light enough to assure ease of handling in actual use. Both are UL Approved.

**BURGESS LIGHT-DUTY MODEL.** 3-in. wide belt. Unusually low price for this type sander. Designed for the home owner, hobbyist and craftsman. Easily operated—fine for use by the whole family. Self-lubricated bronze bearings. Sanding belt is flush with belt sides of housing—sands right up to walls. Tempered coil spring maintains proper belt tension. Has combination momentary contact—constant switch. Set screw belt adjustment. Belts are easy to change. 3400 RPM motor operates on 110-120 volt, 60 cycle AC only. With 3 assorted sanding belts (2½-in. wide) and rubber-covered cord, plug.

84 WTP 8500—Postpaid. $2.50 Down... Cash $24.95

**MALL BELT SANDER.** 3-in. wide belt. Powerful well built unit—for use by home craftsmen, carpenters, maintenance departments, small boat yards, wood working and other small shops, etc. Simple to operate—fast sanding action. Self-lubricating bronze bearing drum construction with combination bolt and sleeve bearing drive. Belt ventilated on one side for blowing out dust. Sanding belt mounted flush with right side of housing, sands right up to walls, into corners, etc. Coil spring maintains proper belt tension. Single pole momentary contact switch with aseptos- grip position on handle. 3450 RPM motor for 110-120 volt, AC-DC. With 2 assorted sanding belts (2½-in. wide) and lubricant. Actual wt. 10½ lbs.

84 WTP 8511M—Postpaid. $8 Down... Cash $79.50

**EXTRA SANDING BELTS.** Steel Fine, medium, course. 84 WTP 8501—Ship. wt. 3 ozs. ...each 29c

**PAPER LISTINGS, pg. 23**
Stanley "Handyman" Portable Electric Tools

ONLY ONE MOTOR NEEDED TO POWER ROUTER, PLANER OR SHAPER ... 49.50 to 75.00

Now you can buy one motor tool and use it interchangeably as a router, planer or shaper by merely buying separate attachments—no costly duplication of power plant: one motor operates them all. Powerful 3/4-HP motor unit runs at 12,000 RPM on sealed ball bearings. Threaded motor housing allows accurate depth adjustment of each attachment. For 110-120 volt AC or DC. Mailed Postpaid. See Shipping Notice at bottom of page.

(A) STANLEY 3/4-HP Router. Lightweight, precision-built unit for grooving, rabbeting, dadoing, doing templet work, etc. Make smooth cuts with or against grain: use on wood or plastics. Push-button shaft lock simplifies removing chuck and changing bits. Quick-setting micrometer depth adjustment, 1/8 in. for each full turn of motor housing. Router attachment includes: chuck, straight and circular cutting guide, 1/4-in. straight bit, wrench, Extra order router bits (2) to (M) at right.

94 WTP 8577T—Router complete with 3/4-HP motor unit. $5.95 Down...

Cash $26.50

94 WTP 8576T—Router attachment only (without motor) ... 12.50

(B) STANLEY POWER PLANES. Perfect for building and home handyman for planing dressed lumber, fitting storm windows, screens, etc. Leaves smooth, waveless surface that needs no sanding. Unique designs leave chips away from cutter and operation. Fits both ways for single planing. Planer attachment includes arbor, 1 1/8-in. cutter blade, wrench. Overall 1/4-in. long.

94 WTP 8579T—Planer complete with 3/4-HP motor unit. $6.50 Down...

Cash $28.00

94 WTP 8578T—Planer attachment only (without motor) ... 2.00

(C) STANLEY BENCH SHAPER. Easily mounts in any table. High operating speed assures smooth cut without chatter. Motor tilts to 40°, producing many different shape cuts with the same cutter—gives innumerable straight and irregular shapes in wood or plastics. Shaper attachment includes 1 1/8-in. arbor, fence and guard. Use with 1/8-in. bore shaper cutters listed on Page 19.

94 WTP 8581T—Bench Shaper complete with 3/4-HP motor unit. $7.00 Down...

Cash $35.00

94 WTP 8580T—Shaper attachment only (without motor) ... 2.00

STANLEY "HANDYMAN" BUILDERS KIT FOR EASY DOOR HANGING 125.00

Ideal outfit for contractors and builders for hanging doors and other routing and planing work. Combines Stanley 3/4-HP router and planer attachments plus specially designed templet for hinge mortising. New door and jamb butt templet is lightweight all-metal construction, is quickly adjusted to mortise either 2 or 3 hinges on wooden doors and jambs. Can be used with doors from 1/2 to 2 inches in thickness. Templet guides router so hinge mortises are cut to uniform size and depth. Motor unit can be quickly interchanged for use with either router or planer attachment. Special router sub-base provides hard, smooth surface that prevents wear and protects work surfaces from marking.

Kit includes: 3/4-HP motor unit (described at top of page); router attachment (A); planer attachment (B); door and jamb butt templet; special templet guide; arbor; two mortising bits; straight and circular cutting guide; router sub-base; and carrying case. Each piece fits completely in distinctive fitted case with special racks to keep pieces in place when kit is being carried. Separate compartment holds templet, mortising bits, planer blade and other accessories. Total weight of complete outfit only 30 lbs. See Shipping Notice below.

94 WTP 8582MT—Complete Builders Kit Mailed Postpaid. $12.50 Down...

Cash $62.50

DOVETAIL ATTACHMENT. Use with router (A) or (B) above. Quickly and easily cuts matching dovetail joints with one pass of router... takes only 10 seconds to cut average joint. Handles stock to 1 1/2 in. wide, from 3/8 to 1 in. thick. Includes finger templet, dovetail bit, guide and subbase.

94 WTP 8584T—Mailed Postpaid ... 20.00

Shipping Notice. All the items listed on this page are shipped promptly from Stock in Chicago, Baltimore and Oakland.
Plywood and Hardboard for Your Workshop Projects

**Plywood for All Interior and Exterior Uses**


**Plyphane for Exterior Use. Waterproof, weatherproof. Fiber bonded with strong phenolic resin adhesive. Face side sanded smooth, ready to finish. Grade A, free from knots, beautifully finished. Back side Grade C, has knots, other minor wood defects which do not impair strength.** By steaming can be bent to smaller radius than other types. Use 3/8 in., 3/4 in. where greater strength, rigidity is necessary. 4x8-ft. sheets.


**Handy-size Panels, Interior Grade.** Exact size, precision cut sheets to build cabinets, doors, furniture, etc. Both sides of panels Grade A, beautifully finished. Sanded smooth both sides ready to be finished. State Cutting Number, Size, and Quantity.

<table>
<thead>
<tr>
<th>Size</th>
<th>Ship. wt.</th>
<th>1/4 in. Thick</th>
<th>3 ply 74 WT 3050 R</th>
<th>Ship. wt.</th>
<th>3/8 in. Thick</th>
<th>3 ply 74 WT 3051 R</th>
<th>Ship. wt.</th>
<th>1/4 in. Thick</th>
<th>5 ply 74 WT 3054 R</th>
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</thead>
<tbody>
<tr>
<td>12 x 12</td>
<td>5</td>
<td>1.76</td>
<td>1</td>
<td>1.68</td>
<td>1</td>
<td>1.5</td>
<td>1</td>
<td>1.68</td>
<td></td>
</tr>
<tr>
<td>12 x 18</td>
<td>5</td>
<td>21.0</td>
<td>2</td>
<td>3.6</td>
<td>2</td>
<td>5.0</td>
<td>2</td>
<td>5.0</td>
<td></td>
</tr>
<tr>
<td>24 x 18</td>
<td>3</td>
<td>3.78</td>
<td>3</td>
<td>5.5</td>
<td>3</td>
<td>5.5</td>
<td>3</td>
<td>5.5</td>
<td></td>
</tr>
<tr>
<td>24 x 24</td>
<td>3</td>
<td>5.65</td>
<td>3</td>
<td>5.65</td>
<td>3</td>
<td>5.65</td>
<td>3</td>
<td>5.65</td>
<td></td>
</tr>
</tbody>
</table>

**Plyphane for Interior Use.** 1/4 in. thick. 3 plies of seasoned, kiln-dried Douglas Fir bonded with water-resistant glue. Face side only is Grade A, beautifully finished; sanded smooth, ready to finish. Back side is Grade D. State Size and Quantity.


**New Modern Black Wrought Iron Legs, Shelf Dividers**

**Iron Legs.** Make your own desks, tables, chairs, etc., at home using Ward's modernistic wrought iron legs. Predrilled to simplify installation. Three-leg construction adds strength, modern beauty. In 4 convenient sizes. Use 6-in. for beds, sofas, etc.; 10-in. for college table, cabinets, stand 16 in. for mantels, dressing tables, desks, etc. 28-in. for dining tables, television tables, desks, etc.

74 W 4742—Set of 4 legs. Be sure to state height. Make.

6 in. high. Ship. wt. 4 lbs. set. Set of 4 $4.45
10 in. high. Ship. wt. 6 lbs. set. Set of 4 $4.95
16 in. high. Ship. wt. 9 lbs. set. Set of 4 $4.95
74 WT 4742 N 28 in. high. Ship. wt. 14 lbs. set. Set of 4 $2.45

**Wrought-iron Shelf Dividers.** Make room partitions, bookcases, desks, wall racks, etc., with wrought iron shelf dividers. 3/4 in. wide. 1/4 in. thick bars with modern diamond design. Predrilled at top and bottom for easy installation.

74 W 4744—Ship. wt. 4 lbs. Make.

**Base Bracket.** With rounded metal base to protect floors. Predrilled holes on bracket match divider holes above. Make.

74 W 4745—24-inch high. Ship. wt. 1 lb. 8 oz. set. 2 for $5.50

**Versatile, Sturdy All-Wood Hardboard**

Hardboard is "wood-made-better"—made from wood fibers that are compressed under tremendous pressure. Extremely strong and rigid—resistant to surface scars. NATURALWOOD color may be painted or stained if desired. Economical, can be easily scored, routed, drilled, planed, etc. Tempered De lane has hard, extra-smooth surface on both sides; other types have hard, extra-smooth face with finely screened back. Shipped from Stock. Not Malleable.

**Standard Hardboard.** Interior grade. Stile size.

74 WT 2950 R 1/8 in. thick. Ship. wt. 7/8 lb. 4x8 ft. panel $2.30 1/4 in. thick. Ship. wt. 13 lbs. 4x8 ft. panel $1.12 3/8 in. thick. Ship. wt. 25 lbs. 4x8 ft. panel 2.45 74 WT 2953 R 1/8 in. thick. Ship. wt. 44 lbs. 4x8 ft. panel 4.19

**Tempered Hardboard.** Weatherproof, exterior grade. Use in places subject to high humidity or moisture. Stile size.

74 WT 2921 R 1/8 in. thick. Ship. wt. 26 lbs. 4x8 ft. panel $3.50 74 WT 2923 R 1/4 in. thick. Ship. wt. 46 lbs. 4x8 ft. panel 5.55

**Tempered De lane Hardboard.** Same as Tempered but 2 smooth sides. Use where both sides exposed. Stile size.

74 WT 2831 R 1/8 in. thick. Ship. wt. 10 lbs. 4x8 ft. panel $1.09 1/4 in. thick. Ship. wt. 13 lbs. 4x8 ft. panel 1.55 1/8 in. thick. Ship. wt. 26 lbs. 4x8 ft. panel 3.35

**"Weldtex" Douglas Fir Plywood Sheets.** Attractive combed surface. Squeezed edges, grooved surfaces conceal joints. 3/8 in. thick sheets resist warping because of 3-ply construction. Can be finished only on grooved side. Shipped promptly from Stock. Minimum order: 2 sheets.

74 WT 3096 R—Ship. wt. 27 lbs. 4x8 ft. sheet. 77.76
Build-It-Yourself With Craft Patterns and Woods

**Craft Woodworking Patterns** 1.25 each pocket

There's a wealth of pleasure awaiting you in the hobby of woodwork. Not only because you save money by building it yourself, but also because of the great satisfaction you receive in making and using your own finished projects. All patterns are complete with working drawings, easy-to-follow instructions and a list of the materials you will need. Lumber and materials not included. All curved patterns are full size for your convenience—others are drawn to scale. Choose from a wide selection of patterns and projects listed below. Patterns mailed postpaid promptly from Chicago Factory. Stock Catalogue Number.

**CABIN AND COTTAGE PACKET.** 13 cabin and 26 furnishing designs.

84 WTP 3020 K—39 patterns in all.... Pocket $1.25

**BIRD HOUSE PACKET.** Large variety of bird houses, bat houses, feeders, etc.

84 WTP 2019 K—45 patterns in all.... Pocket $1.25

**LAWN PACKET.** Large selection of lawn chairs, tables, garden wall, gales, fireplaces and other items for outdoors. All weatherproof.

84 WTP 3018 K—40 patterns in all.... Pocket $1.25

**SMALL TOY MODEL.** Model railroad buildings, doll house, action toys.

84 WTP 3023 K—17 patterns in all.... Pocket $1.25

**JUNIOR SAW SAW PACKET.** Easy-to-make garden markers, toy designs, etc.

84 WTP 3015 K—46 patterns in all.... Pocket $1.25

**BOAT-BUILDERS' PACKET.** Row boats, canoes, sailboats and boats.

84 WTP 3013 K—19 patterns in all.... Pocket $1.25

**LARGE TOY PACKET.** Bigger, more useful toys, rocking horses, wagons.

84 WTP 3024 K—16 patterns in all.... Pocket $1.25

**CAPE COX DOLL HOUSE.** Complete construction details. Floor, wiring, furniture designs and plans. Includes windows and 'brick' paper.

84 WTP 3022 K—35 patterns in all.... Pocket $1.25

**WINDMILL PACKET.** Animated windmill and weathercock patterns.

84 WTP 3021 K—15 patterns in all.... Pocket $1.25

**SENIOR SAW SAW PACKET.** What-not shelves, valances, book shelves, etc.

84 WTP 3014 K—31 patterns in all.... Pocket $1.25

**HOME MODERNIZATION PACKET.** Basement, attic rooms, cabinets, bookcases, shelving, kitchen cabinets, wardrobes, shutters, cornices, etc.

84 WTP 3019 K—44 patterns in all.... Pocket $1.25

**LAWN ORNAMENT PACKET.** Designs of children, birds, dogs, etc.

84 WTP 3009 K—53 patterns in all.... Pocket $1.25

**HOME CABINET PACKET.** Incl. gun, corner cabinets, Lazy Susan pantry.

84 WTP 3010 K—22 patterns in all.... Pocket $1.25

**PLAYGROUND APPARATUS.** Gym sets, outdoor games, sand box, etc.

84 WTP 3011 K—31 patterns in all.... Pocket $1.25

**CHRISTMAS DECORATIONS.** Santa Claus, church, nativity scene, table, candle, dovecow, window decorations.

84 WTP 3012 K—10 patterns. Pocket $1.25

---

**FINEST QUALITY FIRED OR EDGED WOODS** 1.95 to 9.60

Specially selected for texture and character. Thoroughly kiln-dried to ensure minimum moisture content and to prevent shrinkage. Choice of three fine woods: Mahogany, a traditionally fine quality hard-textured wood that mellows with age. Easy to hand tool and machine, takes a fine finish. Used extensively in boat hulls, finest furniture and cabinet work. White maple, a dense, strong, hard-textured wood popular for all kinds of furniture. Has excellent wearing qualities. Attractive light color; can be stained walnut or mahogany color. Walnut, a strong, hard-textured wood that machines and finishes very well, fairly easy to hand tool and machine. Dark colored when finished. Best suited for fine furniture, gun stocks, fancy trim, etc. Woods are mailed promptly direct to you from Factory in New York City, N.Y. You pay postage charges from there.

(A) Turnings Blocks. Supplied in rough form. For making ash trays, bowls, candlestick bases, lamp bases, etc. State Cat. No. and size wanted.

(B) Dimensions-Cut Cabinet Woods. Surfaces smooth on both sides and edges. For making tables, furniture and other projects. State Cat. No. and size wanted.

(C) Turnings Squares. Supplied in rough form. For turning legs, spindles, cones, gavels and similar work. Cut from clear stock. State Cat. No. and size.

---

**CONSTANTINE PRE-CUT WOOD INLAY PATTERNS** 4.95

You can make unusually beautiful inlaid wood pictures without any experience, without any special tools. Selected wood veneers are precision-cut at factory by marquetry experts. All you do is arrange pre-cut pieces according to patterns furnished, and glue them to back panel. Completed pictures are about 1/2" in., make decorative plaques to hang in office, den, recreation room, etc. Kit includes all necessary materials including pre-cut veneer pieces, borders, backing panel, glue, crack filler, sandpaper, and special preparing finish. Choice of five attractive subjects. Ship. wt. each kit, 3 lb.

---

**FINISH 1935**

- Complete Kit $4.95
- 53 WT 1735 - Yachting Scene
- 53 WT 1736 - Homestead Scene
- 53 WT 1737 - Mountain Stream Scene

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**FINISH 1937**

- Complete Kit $4.95
- 53 WT 1738 - Flying Ducks Scene
- 53 WT 1738 - Old Mill Scene (not shown)
- 53 WT 1739 - Mountain Stream Scene (not shown)

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www.OzarkToolManuals.com
Selected Hand Tools to Complete Your Workshop

NEW TOOL OUTFIT 43.50

A 25-PC. TOOL CABINET SET, Especially designed by Wards for both portable and workshop use. Can be used as a portable unit—store in closet or other small space. Just as handy when mounted above your workbench or in the workshop to provide enclosed storage for all tools. Stands upright, whether open or closed. Ideal for the home craftsman, perfect for the apartment hobbyist. 3/4-in. thick plywood cabinet is covered with mahogany finished steel; interior is stained. Includes 24 Better Quality tools as follows:

- Taper Ground 25-in. Crosscut Saw
- Block Plane with 1/8-in. cutter
- Smooth Plane 8 in., 2-in. cutter
- Two-Wood Chisels (1/4 and 3/4 in.)
- Two Screwdrivers (4 and 8 in.)
- Hand Drill with 8 Drill Bits
- Ratchet Bit Braise (10 in. overall)
- Two Auger Bits (1/4 and 3/4 in.)
- Balanced Crown Hammer (16oz. head)
- Folding 6-in. Maple Rule
- Combination Square (12 in.)
- Pipe Wrench (10 in. long)
- Carpenters' Pencil (7 in. long)
- Finishing Nail Set, 3/4-in.
- Carpenters' Wood Level (24 in.)
- Combination 6-in. Pliers
- Adjustable 5-in. Wrench
- Mill File (5 in.)
- Standard Taper File (6 in.)
- Coping Saw with Blade
- Handy Sander, Steel frame.

Every Tool and accessory listed above is selected from Wards General Catalog. Save over $3 on complete outfit. Complete with hooks and clips for hanging tools, carrying handle and hook for hauling cabinet. Ship, wt. 45 lbs. Made Mimbles.

84 WT 4313 —$4.50 Down... Cash $43.50

CABINET ONLY without tools, Mimbles. 84 WT 4310M —Ship, wt. 24 lbs. $11.95

CREDIT TERMS are AVAILABLE on ORDERS of $20 or more, COMPLETE DETAILS on PAGE 48.

INDIVIDUAL FINE QUALITY HAND TOOLS... 85c to 9.95

Even the finest, most complete power tool workshop needs good hand tools to function at top efficiency. Some jobs (hamming nails, for example) cannot even be done with power equipment. Supplement your power tools with Wards fine quality hand tools. Items listed below have been carefully selected as being most frequently used in a power tool workshop. They are among the finest in quality ever offered under the Ward guarantee. All are designed to help you "do-it-yourself." Add to your workshop equipment by choosing individual tools as you need them, or buy the complete tool outfit listed below.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Description</th>
<th>Ship wt.</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>84 WT 5550</td>
<td>*Corner Saw with blade (12 in.) Wards Master Best Quality.</td>
<td>10 oz.</td>
<td>$1.75</td>
</tr>
<tr>
<td>84 WT 4653</td>
<td>1/4-in. Adjustable Hacksaw with blade (16 in.) Wards Master.</td>
<td>1 lb.</td>
<td>2.25</td>
</tr>
<tr>
<td>84 WT 4777</td>
<td>Tempered steel Hacksaw Blades (6 in.) Wards Master. Per Dozen.</td>
<td>10 oz.</td>
<td>1.98</td>
</tr>
<tr>
<td>84 WT 5200</td>
<td>Power Hacksaw Blades, high speed (12 in.) Wards Master. Pkg. of 2.</td>
<td>1 lb.</td>
<td>8.50</td>
</tr>
<tr>
<td>84 WT 3515</td>
<td>*No. 4, Smooth Plane, 2-in. cutter, 9 in. long, Wards Master Quality.</td>
<td>4 lbs.</td>
<td>3.17</td>
</tr>
<tr>
<td>84 WT 3515</td>
<td>*No. 5, Jack Plane, 2-in. cutter, 14 in. long, Wards Master Quality.</td>
<td>5 lbs.</td>
<td>5.89</td>
</tr>
<tr>
<td>84 WT 5320L</td>
<td>No. 6, Fore Plane, 2 1/4-in. cutter, 16 in. long, Wards Master Quality.</td>
<td>7 lbs.</td>
<td>8.59</td>
</tr>
<tr>
<td>84 WT 3515</td>
<td>*No. 7, Jointer Plane, 2 1/2-in. cutter, 22 in. long, Wards Master Quality.</td>
<td>9 lbs.</td>
<td>11.45</td>
</tr>
<tr>
<td>84 WT 5000</td>
<td>*2-in. Combination Square, level, scriber, ruler, Wards Master Quality.</td>
<td>1 1/4 lbs.</td>
<td>3.05</td>
</tr>
<tr>
<td>84 WT 4659</td>
<td>*6-in. Framing Rule, 1/16 in., 16 in. Wards Master Quality.</td>
<td>1 lb.</td>
<td>1.99</td>
</tr>
<tr>
<td>84 WT 4660</td>
<td>*2-in. Screwdriver Set in Plastic case, Wards Master Quality.</td>
<td>1 lb.</td>
<td>2.79</td>
</tr>
<tr>
<td>84 WT 4660</td>
<td>*Ratchet Screwdriver with 3 bits, 6 in., 14 in., 20 in. Wards Master Quality.</td>
<td>1 1/2 lbs.</td>
<td>5.55</td>
</tr>
<tr>
<td>84 WT 4665</td>
<td>*4-in. File Kit (6-in., Taper, 6-in., Half-round, Mill, Round).</td>
<td>1 lb.</td>
<td>1.99</td>
</tr>
<tr>
<td>84 WT 3650</td>
<td>*Heavy Duty Ratchet Bit Brace, 1/2-in. capacity. Lakeside Quality.</td>
<td>1 lb.</td>
<td>1.47</td>
</tr>
<tr>
<td>84 WT 6500</td>
<td>*3-in. Auger Bit Set (9/32, 1/4, 1/2 in.) Wards Master Quality.</td>
<td>9 oz.</td>
<td>2.45</td>
</tr>
<tr>
<td>84 WT 3741</td>
<td>*Ratchet Push Drill with 8 points (1/4 to 1/4 in.) Wards Master Quality.</td>
<td>9 oz.</td>
<td>3.35</td>
</tr>
<tr>
<td>84 WT 3752</td>
<td>*6-in. Claw Hammer, Drop-forged head. Wards Master (Best quality).</td>
<td>1 lb.</td>
<td>2.69</td>
</tr>
<tr>
<td>84 WT 3754</td>
<td>*6-in. Pipe Wrench, Drop-forged head, Wards Master Quality.</td>
<td>1 lb.</td>
<td>2.69</td>
</tr>
<tr>
<td>84 WT 8707</td>
<td>*Aluminum Hand Level, 24 in. long, 6 glasses. Wards Master Quality.</td>
<td>1 lb.</td>
<td>3.75</td>
</tr>
<tr>
<td>84 WT 6955</td>
<td>*Wooden Chisel Set, 1 oz. class, 3 pieces, Wards Master Quality.</td>
<td>1 lb.</td>
<td>3.89</td>
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<tr>
<td>84 WT 5858</td>
<td>*2-Pc. Wood Chisel Set, (1 1/2, 1 1/2 in.) Wards Master Quality.</td>
<td>1 lb.</td>
<td>3.89</td>
</tr>
<tr>
<td>84 WT 4790</td>
<td>*10-in. Adjustable Wrench. All steel, Wards Master (Best quality).</td>
<td>1 lb.</td>
<td>2.19</td>
</tr>
<tr>
<td>84 WT 4789</td>
<td>*6-in. Combination Utility Pliers, Wards Master (Best quality).</td>
<td>1 lb.</td>
<td>1.99</td>
</tr>
<tr>
<td>84 WT 4715</td>
<td>Combination Tin Snips, 10 in. long, 2 1/4-in. cut, Wards Master Quality.</td>
<td>1 lb.</td>
<td>2.69</td>
</tr>
<tr>
<td>84 WT 5353</td>
<td>*10-in. Pipe Wrench, Takes 2 1/2-in. pipes, Wards Master Quality.</td>
<td>1 lb.</td>
<td>3.15</td>
</tr>
<tr>
<td>84 WT 3977</td>
<td>*6-in. Crosscut Saw, Taper ground, 8 pt. teeth, Wards Master Quality.</td>
<td>3/4 lbs.</td>
<td>3.98</td>
</tr>
<tr>
<td>84 WT 3977</td>
<td>*6-in. Rip Saw, Taper ground, 8 pt. teeth, Wards Master Quality.</td>
<td>3/4 lbs.</td>
<td>3.98</td>
</tr>
<tr>
<td>84 WT 4318</td>
<td>*4-in. Straight Shank Drill Bit Set, (1/4 in.) Wards Master Quality.</td>
<td>1 lb.</td>
<td>1.79</td>
</tr>
<tr>
<td>84 WT 4205M</td>
<td>4-in. Perforated Steel Tool Rack, (6 1/8 in.) Wards Master Quality.</td>
<td>1 lb.</td>
<td>1.79</td>
</tr>
<tr>
<td>84 WT 4205M</td>
<td>2-section, Perforated Steel Tool Rack (2 7/8 in.) Wards Master Quality.</td>
<td>1 lb.</td>
<td>1.79</td>
</tr>
</tbody>
</table>

NEW PERFORATED METAL TOOL RACE PLUS 41 FINE HAND TOOLS 59.95

COMPLETE 42-PC. OUTFIT. You save $6.30 on purchase of complete kit. Includes every tool starred (*) in listings above, including 3-section perforated 20-ga. steel tool rack. Here's a workshop at your fingertips. Basic equipment that you need to get started. Every tool a piece of fine quality equipment, built to provide years of dependable service. Rock has plenty of room for additional tools too—will hold up to 75 of them. Includes 96 assorted hooks, shelf for miscellaneous items. Neat and convenient. Mounts directly on wall—no framing necessary. Baked-on Grey enamel finish, Blue trim. Shipped promptly from Stock. Not Mimbles.

84 WT 4327R —Ship, wt. 51 lbs. $8 Down on Terms... or Cash $59.95

WORKSHOP AND GARAGE TYPE VISES 7.45 to 22.45


<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Jaw Size</th>
<th>Open to</th>
<th>Takes Links</th>
<th>Swivel Points</th>
<th>Ship, wt.</th>
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</thead>
<tbody>
<tr>
<td>84 WT 5413M</td>
<td>1/4 in.</td>
<td>1/4 in.</td>
<td>1/4 to 2 in.</td>
<td>30 in.</td>
<td>18 lbs. Mimbles</td>
</tr>
<tr>
<td>84 WT 5414M</td>
<td>5/32 in.</td>
<td>3/4 in.</td>
<td>1/4 to 2 1/2 in.</td>
<td>36 in.</td>
<td>25 lbs. Mimbles</td>
</tr>
<tr>
<td>84 WT 5420M</td>
<td>5 in.</td>
<td>3 3/4 in.</td>
<td>1/4 to 2 1/2 in.</td>
<td>36 in.</td>
<td>30 lbs. Mimbles</td>
</tr>
</tbody>
</table>

MECHANICS VISE. Wards Master (Best Quality). Malleable iron construction. Grease packed spindle, Precision machined. Removable steel jaws. 120° swivel. 84 WT 5450M —3/4 in. jaws open to 5 in. Mimbles. Ship, wt. 22 lbs. $17.45

84 WT 5451M —4 in. jaws open to 6 in. Mimbles. Ship, wt. 39 lbs. $22.45

www.OzarkToolManuals.com
Do-It-Yourself Kits for Repairs and Improvements

73-PC. SOCKET WRENCH AND TOOL SET 38.95

Handles all types of auto-repair and assembly jobs. Speedmaster Quality sockets and attachments are made of the finest hot-forged special alloy steel, chrome plated to resist rust. Tools and other parts are made of specially selected steels. All will give years of long service. 1/4-in. Drive Parts Include: 8 sockets—four 6-pt. (5/32 to 5/16 in.), four 12-pt. (5/32 to 5/8 in.), reverse ratchet, 5-in. extension. All parts in separate plastic box. Provides convenient, handy storage.

1/2-in. Drive Parts Include: Fourteen 13-pt. sockets (5/16 to 1-1/4 in.), five 8-pt. (5/32 to 7/16 in.), one 9/16-in. deep wall socket, two extensions (8 and 10 in.), box handle with crossbar, speeder handle, reverse ratchet and metal case that fits out for easy access.

Wrenches Include: 8-pc. Ignition wrench set (open and box end—5/16/7/16, 5/8/11/16, 1/2-in. box end set—5/16/7/16, 1/2-in.), 6-pc. auto kit (open and box end—5/16/7/16, 1/2-in.), 5-pc. open end set (5/16/7/16, 1/2-in.) and 8-in. adjustable wrench.

Miscellaneous: 5-pc. punch and chisel set, 2 standard screwdrivers (4 and 6 in.), 2 Phillips screwdrivers (No. 1 and No. 2), 6-in. combination pliers, 9/16-in. locking pliers, metric tool box (19x5x8/11x11/4 in.). Mail.

84 WT 47044—Complete Set, Ship. wt. 31 lbs. 84 Down... or Cash $38.95

SOLDERING GUN KIT 12.95... PIPE THREADING OUTFIT 19.45

SOLDERING GUN KIT. Speed your soldering and tinning repairs with this compact fast-heatting unit. Ward's Master (Best) Quality soldering gun rated at 250 watts. Transformer-type gun gives extremely rapid heat—ready for work in only 5 seconds. Replaceable tip for plastic tile cutting and for general soldering use. Operates on 110-120 volt, AC, UL approved. Strong plastic frame features built-in spotlight that shines light directly on work. Complete with 4-pc. case of acid and anode core solder, two replaceable tips, 6-ft. rubber-covered cord and plug. All in compact metal case.

84 WT 6075—Complete Soldering Outfit, Ship. wt. 3 lbs...
84 WT 6077—Soldering Gun Only with tip, Ship. wt. 2 lbs. 9 oz...
84 WT 6083—Extra Plastic Tile Cutting Tip, Ship. wt. 2 oz...
84 WT 6084—Extra Iron Plated Soldering Tip, Ship. wt. 2 oz...

HOME-CRAFTSMAN'S PIPE THREADING OUTFIT. Do your own plumbing repairs quicker and easier with this economical outfit. Lakeside (Better) Quality set includes solid die set with 3 tool steel dies (1/2, 5/8 and 1-1/4 in.), malleable iron pipe cutter with hardened steel rollers and cutter. Malleable iron pipe vise takes 1/2 to 1-1/4-in. pipe. With pint of cutting oil. Heavy-corrugated storage carton helps you keep dies and tools all together. Mailable.

84 WT 8235 M—Complete Outfit, Ship. wt. 2 lbs...

FLUORESCENT LIGHTS 9.59, 14.75... PLUG-IN STRIPS 2.95, 3.95

Provide your workshop with proper lighting and adequate outlet terminals. You'll be amazed at the increase in efficiency that results from proper distribution of light and power. You'll see better and work better.

2-LT. UTILITY FLUORESCENT FIXTURES. Economical, efficient lighting. Heavy-gauge steel boxes have locked-on white metal finish for maximum light reflection. GE standard Cool White bulbs give glare-free light. 3-hole ends for hanging, completely wired. 20-watt fixture has Green Hammerhead finish on outside of shade, cord and plug. Mailable.

83 WT 4217 M—40 watt, Price $1.50, Ship. wt. 20 lbs...
83 WT 9288 M—20 watt, Price $2.50...

PLUG-IN STRIPS. Plenty of outlets for your workshop. Eliminates "bottle-neck" extensions and unplugging one tool to plug in another. Solid No. 12 copper conductors in Gray metal case. For portable installation with cord and plug (not included) or permanent mount with Junction Box (see below). With mounting clips. Ready to install. Mailable.

83 WT 155 M—33 in. long, 5 outlets, 6 in. apart, Ship. wt. 1 lb. 4 oz...
83 WT 156 M—6 ft. long, 4 outlets, 16 in. apart, Ship. wt. 2 lbs. 8 oz...

END JUNCTION BOX. For permanent installation of plug-in strip above.

83 WT 162—Use armored Cable, Romex or Conduit, Ship. wt. 4 oz...

NEW DO-IT-YOURSELF FURNITURE KIT 8.95

Here's good news for wood-working hobbyists! Ward's new furniture kit contains all necessary stock, including dowels and screws... plus complete plans... for building any one of 5 useful, decorative pieces of furniture. Even while you make your own home furnishings with power tools or hand tools. With this kit you can build your own TV table, coffee table, step stool, cocktail table or night stand. Choose Mahogany, Maple, Oak or Walnut wood. All materials are of the highest quality—woods are processed and dried, ready to be tooled and finished. Complete with necessary scale drawings, gluing instructions and detailed instructions for 5 separate furniture projects.

Includes: one 3/4-in. veneered plywood top (18x18 in.); two poplar braces for leg assembly (9x9x18 in.); four turning squares (6x6 in.) for legs; wood glue, wood screws, furniture glides. Shipped promptly from Factory in Chicago, Ill. State Mahogany, Maple, Oak or Walnut, Ship. wt. 27 lbs. Mail.

84 WT 8999 K... Kit $8.95
Work Benches ... Woodworkers' Clamps and Vises

NEW STEEL WORK BENCH FRAME. Adjustable in height from 26 to 35 in. Length adjusts 23½ to 44½ in. Full 26-in. width across top. Legs adjust for leveling on uneven or slanting floor. Recommended for use with top (2) below, or make your own top.
84 WT 2951M—Mailable. Ship. wt. 34 lbs...$10.95

NEW RESIN WOOD WORK BENCH TOP. Use with bench frame (1) above or build your own understructure. Large working area 32½x60 in. 1½-in. thickness made up of about 1-in. wood core, faced top and bottom with about ¼-in. Resinwood. Heats matting, adhesives, oils, etc., even cushions saws. Shipped promptly from Factory near Rock Island, Ill. For shipping charges from there.
34 WT 2953P—Ship. wt. 72 lbs............$18.95

UTILITY WORK BENCH. Strong construction throughout. 24x66-in. top provides plenty of working space. Top is 1½-in. thick. Made of kiln-dried Douglas Fir, sanded smooth. Screw and bolt construction gives extra strength. Heavy 24-in. legs are securely cross-braced. 3½-in. iron floor to top. Shipped unassembled with instructions.
84 WT 2956R—Not Mailable. Ship. wt. 72 lbs.$19.95

NEW ALL-PURPOSE SAW HORSE. Collapsible type—legs fold up under platform, requires less storage space to store. All steel construction; tubular steel legs provide maximum strength—supports up to 450 lbs. About 22-in. high; 36-in. leg, Rubber feet.
84 WT 2987M—Ship. wt. 15 lbs. Each.$4.75. Two for $8.95

SAW HORSE BRACKETS. Stamped steel. Use 24-in. lumber (not included). Cut lumber and insert. Two pair required to make two saw horses.
84 WT 2970—Ship. wt. 3 lbs..................Pair $1.59

CABINET MAKERS' BAR CLAMPS. Steel and cast-iron construction. 14½-in. jaw faces. Sliding jaw spring locks on ¾x¾-in. steel bar. Crank adjustment of ¼ turn. Acme threaded screw.
Mailable.
84 WT 2912M—Ship. wt. 9, 10 lbs. Shipped.
Opens to 3 feet...$4.59. Opens to 4 feet...$5.15

GLIUNO CLAMP. Use any length ¾-in. threaded pipe (not included). 1½x1¾-in. jaw face. Spring tension lock. Hand crank adjusts to 1½-in.
84 WT 3151L—Ship. wt. 3 lbs. 8 oz.........$2.15

GLIUNO CLAMP. Use any length 1¼x2¼-in. wood bar (not included). 1¾x1¾-in. sliding jaw face. Hand crank adjusts to 2½-in.
84 WT 3150L—Ship. wt. 4 lbs................$1.98

SAW HORSE, CLAMPS AND WOODWORKING ACCESSORIES

84 WTP 3157M—Prd...$2.95

EXTRA MOUNTING BASE. For (14). Mount extra base elsewhere—one vise does the work of many.
94 WTP 3158—Postpaid...$1.50

LIGHT-DUTY VISE. For general duty in home or shops. Continuous-screw type. Sturdy cast-iron jaws. Jaws 1½ in. wide, 3½ in. deep, open to 4½ in. Actual weight 5 lbs.
84 WT 3159—Ship. wt. 6 lbs...$3.19

CONTINUOUS SCREW-TYPE VISES. Adjustable stop in front jaw. Sturdy cast-iron jaws provide positive grip. Wood handles.
Mailable.

JOHNSON SCREW TUBE. Provides equal distribution of pressure on each or angular work. Hard maple jaws, handles.
84 WT 3153—Shipped length of jaws wanted.

CONTINUOUS SCREW TUBE. Adjustable stop in front jaw. Sturdy cast-iron jaws provide positive grip. Wood handles.
Mailable.

CATALOG NO. 3156 M 3157 M 3158 M 3159 M
Jaw Width 6 in. 7 in. 10 in. 12 in.
Jaw Depth 3½ in. 4 in. 4 in. 4 in.
Open to 4½ in. 4½ in. 4½ in. 4½ in.
Screw Diameter 5/8 in. 5/8 in. 5/8 in. 5/8 in.
Guide Diameter 7/16 in. 7/16 in. 7/16 in. 7/16 in.
Actual Weight 10 lbs. 28 lbs. 30 lbs. 32 lbs.
Price $12.25 $13.25

QUICK-ACTING TYPE. Half-turn of handle disengages screw and permits jaw to slide. 1½x2½-in. diameter screw. Similar to vise 84 WT 3163 M above, but heavier. Actual weight 35 lbs.
Ship. wt. 37 lbs.
84 WT 3164 M—Mailable....................$16.95

WELDWOOD POWDERED RESIN GLUE. 8 oz.
84 WT 3174—Ship. wt. 12 oz.............$0.60

WOODWORKERS' VISES 3.19 to 16.95
Steel Equipment for Your Workshop

**Utility Cabinets, Desks, Benches and Files for Your Hobby Shop Projects**

**Cabinet with Shelves.** Furniture steel cabinet provides excellent storage space for your lighter weight tools and workshop accessories. Finished in baked-on enamel. Standing on the floor, cabinet is deck high. Recessed base eliminates shoe scuffing. Lock and key for door, 3 shelves, including bottom. Elongated holes in back permit hanging on wall if desired. Shipped freight, Truck or Express.

**Utility Desk.** Convenient addition to your hobby shop or workroom. Furniture steel desk has smooth working surface; top measures 40 x 21 in. Four individual drawers on right side, 9 x 18 x 14 in., deep for blueprints, small supplies. Pull height storage on left side, 2 x 11 x 19 in., deep. Three compartments for larger tools. Door with lock, closes over storage section. Two keys included. Your choice of gray or green baked enamel finish. Shipped by Freight, Truck or Express. Overall 26 x 24 x 28 in.

53 WT 2690 R—Shipped wt. 55 lbs. State color. . . $35.00 Down cash $33.45

**Open Storage Problem with Top**

Your workshop storage problems will vanish with Ward's Adjustable All Steel Shelving. Units are built to U.S. Government specifications and are of the quality used in government departments. Choice of 3 styles, all the same height and width, but in 3 different depths. Shelves are 18-gauge steel, support 600 to 800 lbs. without sag. Each shelf is adjustable at 1-in.

**Open Type Shelving.** Five-shelf units (shown) and six-shelf units (not shown). All are 3 ft. 3 inches high; 36 inches wide. You have a choice of 12-, 18- or 24-inch depth. Each unit includes 4 posts; 1 back brace; 2 and 4 braces; shelves more than enough nuts and bolts. Shipped flat, easily assembled. Shipping instructions below.

**Closed Type Shelving.** 5-shelf units (shown); 5-shelf units (not shown). All 7 ft. 3 in. high; 36 in. wide. Choice of 12- or 18- or 24-in. deep. Label holders for storage identification. Each unit has 4 posts, 1 back panel, 2 side panels, 1 base panel, label holders, shelves more than enough nuts, bolts. Shipped flat, easily assembled. Instructions below.

**Bin Storage Shelves.** Bin dividers provide 27 openings, 9 in. high by 12 in. wide, with label holders. Choice of 12 or 18 or 24-in. deep. Each unit includes: 4 posts, 1 back panel, 2 side panels, 1 base panel, 10 shelves. Bin front, bin dividers, nuts, bolts. Shipped flat, easily assembled. See below, bin.

53 WT 2663 F—12-in. deep. Shipped wt. 255 lbs. $55.00 Down cash $51.95

**18-Drawer Parts Cabinet for Shelving.** Steel compartment bins in shelving (E, F), 18 labeled drawers 5 x 4 x 12 in., gray enamel finish. 13 x 24 x 24 in. deep. For 12-in. shelving only.

53 WT 2588 R—Shipped wt. 50 lbs. . . . . $23.95

**Separate Steel Shelves.** Heavy-duty shelves of 18-gauge steel. Will support 600 to 800 lbs. without sag. Fits Steel Shelving Units above. Modular.

53 WT 2583 M—12-inch depth. Shipped wt. 39 lbs. . . . . . . . Three for $8.95

**18-in. Depth. Shipped wt. 42 lbs. Three for $10.95

53 WT 2585 M—(Not shown) 24-in. depth. Shipped wt. 51 lbs. . . . . . . . Three for $12.45

Storage problem now solved. For Ward's Convenient Credit Plan turn to Page 48.
Paint With a Dependable Ward Sprayer; It's 4 to 1

FACTS ABOUT PAINT SPRAYERS

When buying paint-spraying gear, consider these important factors:

- **Air Capacity**: Sprayers are rated by the cu. ft. of air they can produce per minute. However, due to friction, not all the air can be used. The cu. ft. of air actually available for use is called "air delivery." The greater the air delivery at a given working pressure, the larger the output gun you can use and the faster you can spray, within limits. Always compare air delivery, at any price level, before buying.

- **Types of Air Compressors**: Two types in general use are quality sprayers in diaphragm and piston. Measured in air delivery, diaphragm type is generally lower in cost, practical for most small, medium size equipment. Diaphragm wears out after considerable use; but easily replaced at low cost.

- **Piston Type**: Should operate much longer without servicing, but eventual overhaul is more costly. Words oil less than diaphragm sprayers (1) and (2) and all diaphragm sprayers require much oil; the conventional piston type requires a constant supply of oil.

- **Diaphragm Type**: Popular, within its capacity limits, for intermittent use for relatively short periods. The piston type is preferred for either steady or heavy work.

- **Size to Buy**: For home or light shop use, a 1/4- or 1/8-hp compressor gives good results at moderate cost. For painting buildings, cuts, other large scale work, select 1/2-hp or larger.

**CONVENTIONAL 1-PISTON, BELT DRIVE**


**CONVENTIONAL 1-PISTON, DIRECT DRIVE**

With built-in direct-drive, split-phase 1/4-hp motor for 110- to 120-volt, 60-cycle AC. For farm, home, moderate shop use. Displaces 4 cu. ft., delivers 2.6 cu. ft. per minute at 35 lbs. working pressure. Enclosed oil separator and filter. Internal-mix gun (bleeder only) with external and round and fan internal-mix spray heads included. 6-ft. cord, briddled 5-ft. hose. Maximum operating pressure 60 lbs. Size overall 12 1/2 x 9 x 9 1/4 in. high. Ship. wt. 44 lbs.

**BURGESS VIBRO SPRAYER**

A handy utility sprayer for touch-up and light repair jobs around the home, farm, shop, etc. Also for insect, garden sprays. Flows into any 110- to 125-volt, 50- or 60-cycle AC outlet. Pattern and volume adjustable. Nygur spinner, Siphonix nozzle and pump quickly cleaned. Other mechanism sealed in. Cord 8 ft. long. 75 WTP 6451—Postpaid...

**DE VILLELLS HEAVY-DUTY SPRAYERS**

Wards offer also nationally known De Villells professional, heavy-duty paint spraying equipment. Choose from specialized models designed for heavy production work on farms, in factories, in automotive and metal shops etc. Upon request, Wards will send you free comprehensive catalog illustrating this equipment and accessories. List price only. Just send a letter or postal card to the Engineering Service Department of your regular Ward Mail Order House.

ORDER PAINTS FROM WARDS GENERAL CATALOG.
10 Times Faster Than by Brush ... 20% Down

PORTABLE TANK MODEL WITH 1/4-HP MOTOR

DIAPHRAGM TYPE. Use wherever a dependable automatic supply of clean air is needed. Easily moved with (wheels and handle) or can be anchored. Used for shops, studios, dental offices, laboratories, garages etc. Pressure switch maintains constant 30 to 45 lbs. pressure in tank.

Displaces 3 cu. ft., delivers 2 cu. ft. air per minute at 30 lbs. pressure. Replaceable diaphragm 75 WT 6350 listed under (9). Air intake filter, safety valve, moisture trap mean more efficient operation. Electric cord, 9 ft. long. Permanently greasepacked ball bearings—no oiling necessary.

Motor: 1/4-HP centrifugal. 110- to 120-Volt, 60-cycle AC. Wired directly to tank pressure switch. Gauge registers 0 to 75 lbs. Internal mix, nonbleeder spray gun with fan and round spray heads, quart aluminum cup, 15-ft. air hose, V-belt, pulleys and tire chuck. Mounted on 11/2-gallon, welded steel tank. Complete with handle, rubber feet, wheels and case. Size: 23 x 12 x 25 inches high. Ship. wt.: 95 lbs. 90 lbs.
75 WT 6362 R—OUTFIT. $19.50 Down; Cash $37.50
75 WT 6363 R—OUTFIT LESS GUN, HOSE. $35.45

POPULAR 1/4-HP OUTFIT

DIAPHRAGM TYPE. A work-horse for farm, home, shop. Displaces 3.5 cu. ft., delivers 2 cu. ft. air per minute at 30 lbs. working pressure. Replaceable 8-ply diaphragm. Intake air filter for clean air. Surge-chamber keeps air at proper pressure. Safety valve. Permanently grease-packed ball bearings. Length 16 in., width 9 in. lb. 11 in. Oufit includes: Compressor motor (110- to 120-volt, 60-cycle AC, 1/4-HP, split phase); internalmix bleeder gun with fan, round and cone spray heads; quart aluminum cup 15-ft. air hose; 8-ft. electric cord steel base with spring mounted rubber feet; V-belt pulleys; tire chuck. Gun usable with Tank (16), Malleable, Pay $10 Down.
75 WT 6215 Y—OUTFIT. Ship. wt. 42 lbs. Cash $45.50
75 WT 6216 R—OUTFIT LESS GUN. Ship. wt. 3 lbs. 7.95
75 WT 6219—Sneapy GUN ONLY. Ship. wt. 3 lbs. 7.95
75 WT 6350—Extra DIAPHRAGM. Ship. wt. 4 oz. 85c

75 WT 6201—Ship. wt. 10 oz. $2.19
75 WT 6205—2 packs of 10 filters ea., Wt. 4 oz. 35c

RUBBER AIR HOSE. Use 15-ft. length for replacement (no coupler). 25 ft. for extension. Connections 1/4 in. Ship. wt.: 1 lb. 9.95
75 WT 6244—15-ft. Length. $1.49
75 WT 6245—35-ft. With Hose Coupler. $2.60

HEAVY RUBBER MATERIAL HOSE. Ship. wt. 2/5 lbs.
75 WT 6276—5 ft. std. 3/4 in. pipe fitting... $2.75

1/4-HP HEAVY-DUTY TWIN MODEL

DIAPHRAGM TYPE. For heavy farm and home or moderate shop work. Displaces 0.7 cu. ft., delivers 3 cu. ft. per minute at 40 lbs. working pressure. Two-stage fly-by-diaphragm, pressure switches for clean air. Built-in surge-chambers keep air at proper working pressure, Adjustable safety valve. Pressure gauge. Four permanently oiled ball bearings. Length 31/4 in., width 111/4 in., height 125/4 in. Cord 9 ft.

Outfit: Compressor motor (110- to 120-V, 60cycle AC, 1/4-HP expansion); internal mix bleeder spray gun with fan and round spray heads; quart aluminum cup; built-in moisture traps; 15-ft. air hose; steel pipe on a non-skreeping creamer; V-belt; pulleys; tire chuck. Gun usable with Tank (16). Not Malleable. Pay $27 Down on Terms.
75 WT 6314 R—OUTFIT. Ship. wt. 72 lbs. Cash $84.45
75 WT 6313 R—OUTFIT LESS GUN. WT. 40 lbs. 61.25
75 WT 6284—Sneapy GUN ONLY. WT. 3 lbs. 9.75
75 WT 6350-Extra DIAPHRAGM. Wt. 4 oz. Each. 95c

LOW-COST 1/4-HP DIRECT DRIVE

DIAPHRAGM TYPE. For farm, home, shop. Displaces 2.5 cu. ft., delivers 1.5 cu. ft. air per minute at 25 lbs. working pressure. Replaceable, 8-ply diaphragm. Surge-chamber keeps pressure proper pressure. Gnaresd for life bell bearings. "Oiltite" shield bearings. Size: 11/2 x 2 x 11/2 in. high. Oufit includes: Compressor motor (110- to 120-volt, 60-cycle AC, 1/4-HP, split phase); 8-ft. electric cord; internalmix bleeder gun with fan and cone spray heads; quart aluminum cup; 10-in. air hose. Gun usable with Paint Tank (16), Malleable.
75 WT 6344 Y—OUTFIT. Ship. wt. 35 lbs. $37.95
75 WT 6347 M—OUTFIT, NO MOTOR. WT. 14 lbs. 24.50
75 WT 8344—Sneapy GUN ONLY. WT. 3 lbs. 7.25
75 WT 8351—Extra DIAPHRAGM. Ship. wt. 4 oz. 79c

AIR-LINE Spray Unit. Permits spraying directly from compressed air lines. Turns any suitable air supply into a spray gun. External mix, sprays spray gun with fan and round spray heads, 15-ft. air hose. Uses 2 to 4 cu. ft. air per minute at 25 to 30 lbs. pressure. Gun interchangeable between bleeder and non-bleeder.

Regulator with gauge, reduces air line or tank pressure of up to 200 lbs. down to 0 to 140 lbs. Separator removes oil, water, dust. Condensation chamber: drain. Outlet 1/4 in., inlet 3/8 in. 75 WT 6210—Complete Unit, Gun, Hose, Regulator, Gage, Separator. Ship. wt. 7 lbs. 18.75
75 WT 6211—Regulator, Gage and Separator ONLY. (No hose or gun). Ship. wt. 4 lbs. $8.25
75 WT 6220—Regulator and Gage Only. For lines or tank (15). Ship. wt. 2 lbs. $5.50

AIR-DUSTER BLOW GUN. Trigger control. Snout 3 in. long, Mole 1/4 in. pipe threads.
75 WT 6290—Noodle 3/4 in. Wt. 1 lb. $1.29

PAINT SPRAY GUNS are generally classified as: 1) Internal-mix (air and paint atomize inside nozzle) or External-mix (air and paint atomize outside the nozzle) and 2) Bleeder (trigger controls only material sprayed) or Non-bleeder (trigger controls both material and air at the same time).

For best results with conventional spray guns, Internal-mix should be used with pressure feed; External-mix should be used with siphon feed. Use internal-mix for slow-drying paints, enamels, varnishes. Use external-mix for fast-drying paints, lacquers, shellacs etc. Woods oil-stains (1) and (2), however, have guns with new type nozzle that not only atomize air round, but air+spray equally, but also spray slow or fast-drying paints equally well. A bleeder gun is necessary for all sprayguns used without an air pressure tank and pressure switch; non-bleeder used with a tank.

75 WT 6222 M—Malleable. Ship. wt. 15 lbs. $19.95
75 WT 6210—Malleable Hose Adapter. Mounted to connect guns of outlets (9), (8) with (16) above. Shipping weight 4 oz. 35c
Oxy-Acetylene Welding Outfits and Accessories

**Combination Gas Welding and Cutting Outfit** | **$87.85**

- **Ward's Master (Best) Quality**, designed for heavy-duty use.
- **Welding Torch**, cutting attachment, and regulators are approved by Underwriter and Ward's Testing Laboratories after most severe tests. Every part tested individually for your protection. Fused-insulators, hand-fitted joints prevent leakage. All parts coming in contact with gas are made of non-ferrous metals to prevent rust and corrosion. Welds metal up to 2 in. thick; cut steel up to 6 in. thick.

**Welding Torch**. Balanced equal pressure type. Non-finish mixer handles all sizes—no extra mixing chamber needed for larger sizes. Mixing chamber outside of torch handle for maximum safety. Precision fit needle valves for fine adjustment. Heavy knurled grip-torch can be turned off without disturbing regulator settings. Swivel-type tips permit right- or left-handed operation; will not backfire. Torch is strongly made of drawn brass, is 14 to 19 in. long with tips. Ribbed handle prevents slipping. With 3 solid drawn copper tips, sizes T 3, T 5 and T 7 weld up to 2-in. metal.

**Cutting Attachment**. Cuts steel up to 6 in. thick. Convenient lever control of oxygen flow for faster cutting. Solid drawn horns, 10 to 12 in. long. With 2 solid drawn copper cutting tips, sizes C 1 and C 3.

**Gas Welding Outfit Only** | **$65.85**

- **Ward's Master (Best) Quality**, some construction on outfit (1) above but without cutting accessories. Includes: welding torch, 5 welding nozzle tips, sizes T 1, T 3, T 5, T 7, T 8—weld metal up to 2 in., oxygen regulator, acetylene regulator with adapter; goggles; torch holder, wrench; 4 cotton filled cases and a cleaning wrecking frame; 3 bowden gas turning hose; 3/4 lb. of cast-iron flux; 1/4 lb. of brazing flux; 2 rolls of 125-ft. welding hose; 3 illustrated oxy-acetylene welding manuals containing easy-to-follow instructions.

**Welding Torch Only**. Same as shown and described in outfit (1) or left.


**Oxygen and Acetylene Regulators**. Shown and described in outfit (1) at left.

- **Ward's Model 8613—Oxygen Regulator Only**, ship wt. 6 lbs. 8 oz. | **$17.35**
- **Ward's Model 8614—Acetylene Regulator Only**, ship wt. 6 lbs. 8 oz. | **$16.85**

**Important Facts You Should Know about Gas Welders**

**Oxy-Acetylene Welders** offer complete portability—they can be trucked right to the job. They produce high temperatures, up to 6500°F., enough to melt practically every type of common metal. They are the most practical type for welding light steel, and are superior to electric arc welders as cutting tools with correct size nozzle, will cut almost any desired thickness of metal. Also well suited for brazing and soldering.

Most important parts of a gas welder are the regulator, the hose and the torch. Separate regulators for oxygen and acetylene are provided, with scales showing pressure of gas and maintaining constant base of the torch. Regulators and other parts which come in contact with gases should be made entirely of brass or other non-ferrous metals to prevent rust and corrosion. Separate hoses for the two gases are provided, red for acetylene, and green or black for oxygen. Hoses must be flexible, strong and not subject to deterioration due to gases. Two types of torches are used—one for welding, the other for cutting. Welding torches of the equal pressure type are most suitable for use with cylinder gases. Cutting torches have an extra oxygen outlet, enabling pure oxygen to be fed under pressure for rapid cutting action.

Many slip tips are available for torches to use with various types or thicknesses of metal.

**Helmetes and Gas Welding Accessories** | **55c to 15.25**

- **Ward's Model 8610—Welding Helmet, Insulated fiber coated enamel. Outside diameter 7 in., ship wt. 2 lbs. 2 oz. $4.25**
- **Ward's Model 8611—As above except inside enamel. Outside diameter 7 in., ship wt. 2 lbs. 2 oz. $4.25**
- **Ward's Model 8612—Welding Visor, Steel, coated with fiber. Flap fits over forehead. Inside diameter 7 in., ship wt. 2 lbs. 2 oz. $4.25**
- **Ward's Model 8613—Red acetylene hose, 125 ft., $3.30**
- **Ward's Model 8614—Green oxygen hose, 125 ft., $3.30**
- **Cutting Attachment. Fits Ward's welding distributors only. Cut to 10 in. Brasso, 10 in. long. Wrench included, Tips not included.**
- **Ward's Model 8615—Ship wt. 2 lbs. 8 oz. $15.25**
- **Cutting Tips. Fits (1) C 1, cut metal to 1 in., C 2, 1/2 in., C 3, 3/8 in., C 4, 3/4 in., C 5, 1 in., C 6, 11/4 in., C 7, 13/8 in., C 8, 11/2 in.**
- **Ward's Model 8616—Welding Lighter, 2 steps.**
- **Ward's Model 8617—As above except for 3 steps.**
- **Ward's Model 8618—ABC Welding Lessons. Ship by step lessons and practical projects, 244 pages.**
- **Ward's Model 8619—Postpaid, $1.20**
Prow-Kraft and Westinghouse Electric Welders

WESTINGHOUSE WELDERS 101.50 and 240.50


16-qt. steel case 25x31/4x13/4 in. on steel wheel. Class "B" spun glass insulation. Includes 84, 3-conductor pigtail cord, plug, receptacles; two 12-ft. welding cables; electrode holder; electrode; wire brush; 11 lbs. of electrodes; instruction manual. Shipped w. 191 lbs. Not Manipulable. 94 WT 5956R—$89.75 DOWN on Terms. Cash $111.20.

250-AMP, 200-VOLT AC MODEL. UL Approved. Similar to (15) but for heavy-duty garage repair. For farm, garage, etc. Uses 200-240 volt single-phase 60-cycle AC. Meets NEMA specifications. Maximum line draw 65 amperes, open circuit voltage 65 volts; 120 volt power factor corrected to 80%. Maximum power used 9.6 kilowatts. Steel case 34x8.5x13 in. 10-in. wheels. Inc. 16-ft. 3-conductor primary cable, plug and receptacles two 16-ft. welding cables; some accessories as (15). Shipped w. 300 lbs. 84 WT 5937R—Not Manipulable. $25 DOWN... Cash $99.95.

ELECTRIC WELDING ACCESSORIES

10¢ to 13.95

WELDING GLOVES. Split horsetail. 84 WT 5950—Lg. Ship wt. 1 lb. Pair $3.29

ENGLOUTE TWIST WELDING TORCH. For any arc welder. Automatic switch-off. For heating, brazing, etc. Takes up to 3/8 in. electrodes. 84 WT 9114—15/4 in. long. Wt. 38 lbs. $8.95.

WELDING WIRE BRUSH. Steel bristles. 84 WT 5969—Ship wt. 12 oz. $0.39c

ELECTRODE HOLDER. Holds electrodes up to 1/2 in. Racks 300 amperes. Ate. rack. handle. 84 WT 5955—Ship wt. 1 lb. 2 oz. $2.05

GROUND CLAMP. Jaw spread 2 1/4 in. 84 WT 5974—300 amp. exp. Ship wt. 1 lb. $1.95

WELDING CABLE. Rubber-covered copper. 84 WT 5953H—No. 4 Cable. 200 amperes. Stranding 150x42, strand length 21/16 ft., 2 cuts. 84 WT 5951H—No. 1 Cable. 300 amperes. Stranding 200x36, strand length 21/16 ft. 84 WT 5952H—Ship wt. 8 oz. Per foot 42c

WELDING CABLE LUGS. Fit Cable (25). 84 WT 5906—Lug for No. 4 cable. Wt. 1 oz. 80c

COPPER COATED CARBON WELDING CARBONS. Use with Torch (21). 84 WT 5911—Slate disks.

3/16 in. 4 in. 1 lb. $1.95

5/32 in. 6 in. 1 lb. $2.10

6/32 in. 8 in. 1 lb. $2.25

8/32 in. 10 in. 1 lb. $2.60

10/32 in. 12 in. 1 lb. $3.15

8-IN. PLAIN CARBON RODS (not shown). 4-in. diam.

PROTECTIVE LENS. 24x14 in. 84 WT 5912—Wt. 1 lb. 10 lb. 46c

FOIL COVER. For 24x14 in. 84 WT 5913—Wt. 1 lb. 10 lb. 46c

CARRIER LENS. Airtight. For 24x14 in. 84 WT 5914—Wt. 1 lb. 10 lb. 46c

SHIPPING HAMMER. Forged steel, 9 in. long. 84 WT 5920—Wt. 1 lb. $1.75

See next page for complete Listings of Welding Rods and Electrodes.

LIGHT-DUTY PORTABLE MODEL. UL Approved. Portable welder with 115 volt AC motor. Ideal for car and truck repair, school shops, hobbyists, etc. Uses 115 volt AC motor for welding. 84 WT 5956—Wt. 5 lb. $45.95

45.50

30-VOLT BATTERY CHARGER. Keeps batteries at full charge, recharges rundown batteries. For welders (10), (17), 84 WT 5988—Ship wt. 5 lbs. 8 oz. $12.95

www.OzarkToolManuals.com
Wards Convenient Monthly Payment Plan

Don’t let lack of cash keep you from buying the items that you want. Use Wards Monthly Payment Plan to purchase the power tool equipment of your choice. Of course, paying cash is the most economical way to shop but it isn’t always possible to do so. The reasonable charge for credit at Wards is well justified since you buy and use quality merchandise while paying for it. There are no hidden charges at Wards. Whether you pay all cash or use your credit at Wards, the price of the merchandise is the same. There are no hidden charges. You know exactly what you pay extra for the convenience of credit. The carrying charge as shown in the Table of Terms, applies only to the unpaid balance—the amount remaining after deducting the down payment. If your account is paid in full before the first Monthly Payment is due there will be NO carrying charge.

HOW TO OPEN AN ACCOUNT

Write your order in the usual way on one of our regular order blanks, being sure the order totals $30 or more, then sign and fill in the application for credit on the back. Miors will have parent or guardian sign and fill in application. Enclose check or money order for the Down Payment and mail to the Ward Mail Order House nearest you. There will be a short delay for credit investigation which is confidential. If you live near a Ward Store or Ward Catalog Office see the credit manager there, he will give you courteous, prompt service and handle all the necessary details for you if you desire.

REQUIRED DOWN PAYMENT

It is to your advantage to make as large a Down Payment as you can comfortably spare. The minimum required Down Payment on merchandise in this Catalog is 10% (one-tenth) except on Paint Spraying Equipment which requires 20% Down. The larger the Down Payment you make the lower the unpaid balance and the smaller the carrying charge. Also by making a larger Down Payment you may reduce your Monthly Payments. This is the economical way to use your credit...enjoying the use of your merchandise while at the same time keeping the already reasonable carrying charge to a minimum.

AMOUNT TO PAY EACH MONTH

Add up your purchases, including any tax or shipping charges to be advanced by Wards, then subtract the amount for Down Payment as explained above. The remainder is the unpaid Balance to which a carrying charge is added. Table of Terms shows amount of carrying charge and amount to pay Monthly. Minimum Monthly payment in all instances is $5.

WARDS “ADD-ON” PLAN

If you have an account with us, you may make additional purchases of Power Tools and Welding Equipment in orders of $10 or more to be added to your account. Just sign and fill in the “Add-On” form on the back of the order blank. The amount of your new purchase, plus our usual carrying charge of 10%, is then added to the amount you owe. Monthly payments will not be increased unless your new monthly payment requires a larger monthly payment according to the Terms shown in Table of Terms at right.

STEEL ANGLES, CHANNELS, FLATS, ROUNDS

Do-It-Yourself With Steel. Make work benches, garage door braces, railings, outdoor grills, outdoor furniture, playground equipment, utility racks. Standard lengths for A, B, D, 20 ft. C, 18 ft. Shipped promptly from factories near St. Paul, Minn.; St. Louis, Mo. or Houston, Tex. Minimum order $4. Include $1 extra for cutting other than standard lengths.

<table>
<thead>
<tr>
<th>Steel Size</th>
<th>A 84 WT 5700 F - ANGLES</th>
<th>B 84 WT 5700 R - CHANNELS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 x 1 x 1/4 in.</td>
<td>14c</td>
<td>1/4 in.</td>
</tr>
<tr>
<td>1 x 2 x 1/4 in.</td>
<td>14c</td>
<td>1/4 in.</td>
</tr>
<tr>
<td>1 x 3 x 1/4 in.</td>
<td>14c</td>
<td>1/4 in.</td>
</tr>
<tr>
<td>1 x 4 x 1/4 in.</td>
<td>14c</td>
<td>1/4 in.</td>
</tr>
<tr>
<td>1 x 5 x 1/4 in.</td>
<td>14c</td>
<td>1/4 in.</td>
</tr>
<tr>
<td>1 x 6 x 1/4 in.</td>
<td>14c</td>
<td>1/4 in.</td>
</tr>
<tr>
<td>1 x 7 x 1/4 in.</td>
<td>14c</td>
<td>1/4 in.</td>
</tr>
<tr>
<td>1 x 8 x 1/4 in.</td>
<td>14c</td>
<td>1/4 in.</td>
</tr>
<tr>
<td>1 x 9 x 1/4 in.</td>
<td>14c</td>
<td>1/4 in.</td>
</tr>
</tbody>
</table>

LINCOLN ELECTRODES

| For Cast Iron (Ferroweld) 14 in. long, 80 amp, common, 1/4 in. diam. |
| BRONZED BRAZING RODS. Melted at 1600° F. About 36 in. long. Ship wt. 1 lb. 8 oz. |

See Listings of Our Asbestos and Electric Welding Pure Carbon Welding Accessories on Pages 46 and 47.

<table>
<thead>
<tr>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1.99</td>
</tr>
</tbody>
</table>

| 84 WT 5893 - State diameter |
| 1 lb. - 14 in. diameter |

<table>
<thead>
<tr>
<th>Table of Terms</th>
</tr>
</thead>
<tbody>
<tr>
<td>We Will Add</td>
</tr>
<tr>
<td>Balance is</td>
</tr>
<tr>
<td>20.00</td>
</tr>
<tr>
<td>22.00</td>
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<td>24.00</td>
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<tr>
<td>58.00</td>
</tr>
<tr>
<td>60.00</td>
</tr>
<tr>
<td>62.00</td>
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</table>

For Mild Steel (Ferroweld). For low current, general purpose use on mild steel. 84 WT 5933 - State diameter.

<table>
<thead>
<tr>
<th>Size</th>
<th>Amps.</th>
<th>In.</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/8 x 9 in.</td>
<td>40-60</td>
<td>6 lbs.</td>
<td>$4.95</td>
</tr>
<tr>
<td>1/16 x 9 in.</td>
<td>40-60</td>
<td>11 lbs.</td>
<td>$5.00</td>
</tr>
<tr>
<td>1/16 x 10 in.</td>
<td>40-60</td>
<td>11 lbs.</td>
<td>$5.25</td>
</tr>
<tr>
<td>1/16 x 12 in.</td>
<td>40-60</td>
<td>11 lbs.</td>
<td>$5.50</td>
</tr>
<tr>
<td>1/16 x 14 in.</td>
<td>40-60</td>
<td>11 lbs.</td>
<td>$5.75</td>
</tr>
<tr>
<td>1/16 x 16 in.</td>
<td>40-60</td>
<td>11 lbs.</td>
<td>$6.00</td>
</tr>
<tr>
<td>1/16 x 18 in.</td>
<td>40-60</td>
<td>11 lbs.</td>
<td>$6.25</td>
</tr>
</tbody>
</table>

WELDING RODS. Copper coated low carbon steel. Mild steel rods are about 36 in. long. Cast iron about 24 in. Ship wt. 5 lbs. 8 oz. State diameter.

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Dia.</th>
<th>Rods per lb.</th>
<th>lbs.</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>84 WT 5885 H 14 in.</td>
<td>About 6</td>
<td>$1.99</td>
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<td></td>
</tr>
<tr>
<td>84 WT 5885 H 14 in.</td>
<td>About 8</td>
<td>$2.50</td>
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</table>

See Listings of Our Asbestos and Electric Welding Pure Carbon Welding Accessories on Pages 46 and 47.

<table>
<thead>
<tr>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1.99</td>
</tr>
</tbody>
</table>

| Brazing Rods. 1 lb. - 14 in. diameter |
| 84 WT 5965 - Ship wt. 1 lb. 8 oz. |

<table>
<thead>
<tr>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>$1.85</td>
</tr>
</tbody>
</table>

| 84 WT 5965 - Ship wt. 1 lb. 4 oz. |
| $3.55 |

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Dia.</th>
<th>Rods per lb.</th>
<th>lbs.</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>84 WT 5885 H 14 in.</td>
<td>About 12</td>
<td>$2.65</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Brazing Rods. 1 lb. - 14 in. diameter |
| 84 WT 5885 - Ship wt. 1 lb. 4 oz. |

<table>
<thead>
<tr>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>$3.55</td>
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<table>
<thead>
<tr>
<th>Job No.</th>
<th>Dia.</th>
<th>Rods per lb.</th>
<th>lbs.</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>84 WT 5885 H 14 in.</td>
<td>About 12</td>
<td>$2.65</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Welding rods, 84 WT 5885 - Ship wt. 1 lb. 4 oz. . . . $3.55
Nationally Known Logan 9-Inch Metal Lathe

A fine production tool, especially designed for operations requiring a high-speed lathe capable of sustained accuracy. Built to perform within .001 in. for all operations within its capacity. Headstock runs on pre-loaded New Departure ball bearings. Smooth, high speed operation with minimum spindle deflection—greater accuracy. Grease sealed—no further lubrication for life.

Self-lubricating bronze bearings at other points insure reduced maintenance—low cost operation. Widely used by master mechanics, garage, trade schools, etc. Detailed specifications below.

CAPACITY: Distance between centers 18 in. Swing over bed and saddle wings 3½ in. swing over cross slide 6 in. Length of bed 22½ in. Width of bed across ways 6½ in. Two fast and two "V" ways of iron bed are precision ground to within .0005 inch of parallelism within the working surface. Total spindle runout 12 in. from bearings is less than .001 in. Reversible power longitudinal feed. 46 thread selections 4 to 216 right or left-hand threads.

HADESTOCK: Tempered, precision-ground steel spindle slides on grease-sealed New Departure ball bearings for smooth, dependable and accurate performance. Spindle nose diam. 1½ in.—8 right-hand threads per in. No. 3 Morse Taper with adaptor to No. 2 Morse Taper. Hide through spindle 9½ in. Back gear shaft has bronze bearings.

TAILSTOCK, CARARRAGE AND COMPOUND REST: Tailstock spindle travels 2½ in. is graduated in .001ths—takes No. 2 Morse Taper accessories. ½ in. offset for taper turning. Cross slide graduated in thousandths—travels 5½ in. Cross feed screw mounted on self-lubricating bronze bearings. Compound rest swivels graduated 90° in both directions. Tool post opening for tool holder shank ¾ by ¾ in. For use with cutters up to ¼-inch size.

DRIVE: Countershaft assembly has self-lubricating bronze bearings. Three-step "V" belt cone pulley—motor mounts on countershaft bracket. 20x13-inch "V" belt from motor pulley to countershaft; 44x½-inch "V" belt from countershaft to headstock. 12 spindle speeds—55 to 1450 RPM.

LATHE INCLUDES FOLLOWING ACCESSORIES AND PARTS: 17 machine cut semi-steel change gears (installed on lathe), 6-in. face plate, two 60° centers, tool post holder, two-step motor pulley (Slobo ½ or ¼½-in. bore). Also includes wrench, complete parts list and instructions. Recommended for use with ½ HP, 1750 RPM, single shaft motor listed below. (See full description on Page 20.) Accessories (b) and (c) listed below fit this lathe. Only other accessories on Pages 50 and 51 may also be used with this lathe. Shipped promptly from Factory in Chicago, Ill.

ACCESSORIES FOR 9-IN. LOGAN LATHE 3.95 AND 11.35

- DRUM REVERSING SWITCH. Reverses spindle direction by reversing motor.
- Capacity up to 1 HP, 550-volts, AC. With switch box and 3-ft. rubber covered cord. UL Approved. Ship. wt. 3 lbs. 8 oz.
- 84 WT 2215K—Shipped promptly from Chicago Factory

ACCESSORIES FOR 10 AND 11-INCH METAL LATHES ON TWO FOLLOWING PAGES. ACCESSORIES ON PAGES 52 AND 53.

THE MODERN SCREW-CUTTING LATHE... "HEART OF THE MACHINE SHOP"
Powr-Kraft 10-In. Back-Geared Screw-Cutting Lathes

CHOICE OF TWO SIZES—24 AND 31 IN. BETWEEN CENTERS 309.50 AND 334.50

Production models capable of years of precise operation. Designed to operate at high speed—guaranteed accuracy within 0.001 inch. Pre-loaded, ground ball bearings in headstock for smoother operation; bronze bearings at 18 other points of wear.

CAPACITY: Swing over bed to 10 in.; over saddle cross slide 8¼ in. Bed 8½¾ in. wide, of alloy castings. Two flat, two prismatic "V" ways. Machine cut semi-steel gears—ball gear, back gears ¼ in. wide. With change gears for 46 thread selections. 4 to 216 right or left hand threads per in. Back gears enclosed.

HEADSTOCK: Tempered, precision-ground steel spindle rides on two sets of New Departure ball bearings. Spindle nose diam. ½ in.—8 right hand threads per in. No. 3 Morse taper spindle with adapter to No. 3 Morse taper. Hole through spindle 2½ in. Collet capacity ½ in.

TAILSTOCK, CARriage AND COMpound REst: Tailstock spindle travels 2½ in., graduated in 16ths, travels No. 2 Morse taper accessories. ½¼ in. set-over for taper turning.

QUICK CHANGE GEAR BOXES

Convert Powr-Kraft 10-in. metal lathes to quick change gear lathes. Corrected lead screw included. Provides 48 threads and feeds in either direction to carriage. By adjusting two levers, screw threads from 8 to 22 per in. are available. Changing 24-tooth stud gear for 40-tooth stud gear furnished with same, costs increases from 4 to 7 per in. Longitudinal power feeds .0044 to .2500 in. per revolution of spindle. Power cross feed same as longitudinal feed. Semi-steel gears, bronze self-lubricating bearings. Matted promptly from Chicago Factory. Pay postage from there.

STOCK CHIP PANS. For lathes (A) and (B) above. Rolled rim. Malleable. Ship. wt. 22, 27 lbs.

CAST-IRON LEGS. Fit both chip pans above. Ship. wt. 81 lbs.

POWER KRAFT DRIVE-HACK SAW...STATIONARY TYPE 48.50

Includes: 12 x ½ in. blade, 6 in. diam. "V" machine pulley. Ship. wt. 80 lbs. Not Malleable.

Use in small production shops or for general, everyday run of small stock cutting. Cuttings of close-grained gray iron. Corm is integral with machine cut gear—controls pressure on forward stroke of blade, insures pressure relief on back stroke—for smooth cutting, longer life. Bronze bearings give dependable performance.

Equipped with cast-iron vise—jaws 4 in. wide, 2 in. deep—opens to 4 in. Swivels to permit angle cutting from 0 to 45 degrees. Capacity 4 x 4 in. Length of stroke 4½ in. to 90 to 100 strokes per min. Size 8½ in. wide, 29 in. long, 13 in. high.
Logan 11-In. Quick Change Gear Production Lathes

Fine quality production lathes built to rigid and exacting specifications—accurate to within .001 in. For manufacturing, tool rooms, school shops, etc. Special features include: (1) sealed, pre-loaded New Departure ball bearing spindle mounting, requires no adjustment—16 speeds from 50 to 1430 RPM; (2) bearing counterbalance assembly; (3) self-lubricating bronze bearings at vital wear points (4) automatic oil-type apron operates from spindles in lead screw through worm drive and in action chucks half nut drive from lead screw thread for thread cutting; (5) gears, pulleys and belts completely guarded; (6) precision-ground "V" and flat way bed; (7) back gears encased in headstock and are engaged and disengaged easily by conveniently located knob on front headstock.

CAPACITY: Swing over bed to 1 1/4 in.; over saddle cross slide, 6 1/8 in. Bed 6 5/6 in. wide, of seasoned alloy castings, internal stresses removed. Two flutes, two prismatic "V" ways are precision ground. Machine cut semi-steel gears—not die cast. Bull gear and back gears 9/32 in. wide. Gears for 48 thread selections from 3/4 to 224 in.—right or left.

HEADSTOCK: Precision-ground steel spindle rides on pre-loaded, sealed New Departure ball bearings. Spindle nose diam. 3/4 in.—8 right-hand threads per in. Spindle adapter furnished to reduce spindle nose taper to No. 2 Morse taper. Hole through spindle 1/8 in. Maximum collet capacity 1 inch with No. 84 WT 21945 draw-in collets listed on Page 52.

TAILSTOCK, CARROUSEL AND COMPOUND REST: Tailstock spindle travels 4 in.; graduated in 16ths, takes No. 2 Morse taper accessories. 3/4 in. set-over for super turning. Carriages is fully equipped with power cross feed and power longitudinal feed. Cross slide travels 2 7/8 in., graduated in thousandths. Cross lead screw mounted on self-lubricating bronze bearings. Compound rest travels 7/8 in., graduated in thousandths, swivels 90° in both directions. Tool post opening for tool holder shank 3/4 in. See Pages 52 and 53 for complete listing of tool holders, cutting bits and other accessories.

COUNTERSHAFT ASSEMBLY: Counter shaft is mounted on grease-sealed ball bearings for long, trouble-free operation; completely enclosed and guarded. All "V" belt drive. "V" belts and pulleys included with lathes.

ACCESSORIES INCLUDE: 4-in. face plate; two 60° centers; one threading chuck; one spindle nose adapter to No. 2 Morse taper; one tool post holder and wrench; one tool post wrench; parts list; instruction book and 3-step "V" motor pulley (size 9/16 or 9/16 in. bore). Motor not included. (Order 3/4 HP 3-phase motors separately below for single-phase motors, see 83 WT 4581M, Page 21). All lathes on this page shipped from Factory in Chicago with new shank changes from there allow 15 days extra time.

For additional Lathe Accessories See Following Two Pages.

LOGAN PEDESTAL BASE MODELS $815.00 and $860.00

PEDESTAL BASE MODELS. Have all precision engineered features listed above plus streamlined steel pedestal base which encloses underneath drive. Trim, compact base with no protruding parts saves valuable floor space, is only 21 in. wide. Gears, pulleys and belts completely enclosed for operator safety. Switches and controls are conveniently located at operator's fingertips for instantaneous control. Ball bearing drive assembly, enclosed in left compartment, transmits power to lathe spindle. Lever operated belt tension release for changing belt sizes. Height overall, 48 1/2 in. (Order 3/4 HP, 1725 RPM, 220-440 volt 3-phase motor separately below or single-phase motor 83 WT 4581M, Page 21). Accessories are listed on Pages 52 and 53.

3-PHASE MOTOR FOR LATHES ABOVE, 3/4-HP Ball bearing, 1725 RPM, 40° C. continuous duty type. Open drip-proof construction. 83 WT 4652 K—For 220/440-V, 80-cycle AC, 3-phase only, 3/4 x 13/4 in. shaft. Shipped Prepaid from Chicago Factory...$33.00.

CHAS. E. P. WARD'S S1
Powr-Kraft, Jacobs, Logan, Dumore, Globe and Palmgren

FOLLOWER AND CENTER RESTS, TAPER ATTACHMENT, COLLET CHUCKS

PULLER RESTS. Supports thin work. Mounts on back of carriage; follows cutting tool. Cast-iron frame, Adjustable 3-in. capacity jaws. 84 WT 211E—Fits 5-in. Logan Lathes, Ship wt. 4 lbs. $2.35 84 WT 2164K—Fits 10, 11-in. Powr-Kraft and Logan Lathes, Ship wt. 4 lbs. 8.75

CENTER RESTS. Clamp to inner bed ways. Top hinged for inserting or removing chucks. Cast-iron frame with adjustable 3-in. capacity jaws. 84 WT 2190—Fits 5-in. Logan Lathes, Ship wt. 9 lbs. $9.25 84 WT 2165K—Fits 10-in. Powr-Kraft and Logan Lathes, Ship wt. 10 lbs. 10.25 84 WT 2114K—Fits 11-in. Logan Lathes, Ship wt. 10 lbs. 12.50

TAPER ATTACHMENTS. Tapers up to 4 in. per foot in either direction. Easily detached when doing straight turning. Micro-screw adjustment. 10% Down 84 WT 2224K—Fits 10-in. Powr-Kraft and Logan Lathes, Ship wt. 16 lbs. $11.35 84 WT 2266K—Fits 10-in. Powr-Kraft and Logan Lathes, Ship wt. 18 lbs. 14.05 84 WT 2190K—Fits 11-in. Logan Lathes, Ship wt. 20 lbs. 18.25

DRAW-IN COLLET CHUCKS. Hollow draw-in bar extends through headstock. Includes: Collet sizes 1/16 to 1/2 in. by 64th of an inch, 1/8 to 1/2 in. by 64th of an inch, 3/16 to 1/2 in. by 64th of an inch, and 1/2 to 1 in. by 64th of an inch. Sizes 1/8 to 1/2 in. by 64th of an inch, 3/16 to 1/2 in. by 64th of an inch, and 1/2 to 1 in. by 64th of an inch. Sizes 1/8 to 1/2 in. by 64th of an inch, 3/16 to 1/2 in. by 64th of an inch, and 1/2 to 1 in. by 64th of an inch. Sizes 1/8 to 1/2 in. by 64th of an inch, 3/16 to 1/2 in. by 64th of an inch, and 1/2 to 1 in. by 64th of an inch. Sizes 1/8 to 1/2 in. by 64th of an inch, 3/16 to 1/2 in. by 64th of an inch, and 1/2 to 1 in. by 64th of an inch. Sizes 1/8 to 1/2 in. by 64th of an inch, 3/16 to 1/2 in. by 64th of an inch, and 1/2 to 1 in. by 64th of an inch. Sizes 1/8 to 1/2 in. by 64th of an inch, 3/16 to 1/2 in. by 64th of an inch, and 1/2 to 1 in. by 64th of an inch. Sizes 1/8 to 1/2 in. by 64th of an inch, 3/16 to 1/2 in. by 64th of an inch, and 1/2 to 1 in. by 64th of an inch. Sizes 1/8 to 1/2 in. by 64th of an inch, 3/16 to 1/2 in. by 64th of an inch, and 1/2 to 1 in. by 64th of an inch. Sizes 1/8 to 1/2 in. by 64th of an inch, 3/16 to 1/2 in. by 64th of an inch, and 1/2 to 1 in. by 64th of an inch. Sizes 1/8 to 1/2 in. by 64th of an inch, 3/16 to 1/2 in. by 64th of an inch, and 1/2 to 1 in. by 64th of an inch. Sizes 1/8 to 1/2 in. by 64th of an inch, 3/16 to 1/2 in. by 64th of an inch, and 1/2 to 1 in. by 64th of an inch. Sizes 1/8 to 1/2 in. by 64th of an inch, 3/16 to 1/2 in. by 64th of an inch, and 1/2 to 1 in. by 64th of an inch. Sizes 1/8 to 1/2 in. by 64th of an inch, 3/16 to 1/2 in. by 64th of an inch, and 1/2 to 1 in. by 64th of an inch. Sizes 1/8 to 1/2 in. by 64th of an inch, 3/16 to 1/2 in. by 64th of an inch, and 1/2 to 1 in. by 64th of an inch.
Attachments Make Your Metal Lathe Even More Useful

GLOBE MILLING HEAD... CHANGES LATHE TO MILLING MACHINE 196.45

GLOBE DIVIDING HEAD 90.10

FOR MOST INDEXING WORK—cutting spur gear, milling index plates, barreling and roughing flutes, milling shapers, multiple keyways, squares, etc. Fits on Power-Kraft, Logan 10 and 11-in. lathes. Fits indexed to 0.001 in. and may be moved directly on base. Headstock and tailstock carry Morse taper shank—large, removable 1.5/8-in. Morse taper. Standard chuck and dog blocks (dog blocks lock in position). 12-in. index plate covers all numbers 1-12, 13, 14, 15, 16, 20, 22, 27, 30, 44, 54, 66, 69. 84 WT 345.1K—Mailed Postpaid. $90.10

PALMGREN MILLING ATTACHMENT. Cuts spur gear, milling index plates, barreling, roughing flutes. 12-in. lathes for milling, slotting, grooving, etc. Accurate graduations for easy angular adjustments. Graduated vertical feed screw. 24/pad. 84 WT 2345.4K—Extra blade. $1.55

ALL ITEMS LISTED ABOVE EXCEPT 25 ARE SHIPPED PROMPTLY FROM FACTORY IN LOS ANGELES, CALIFORNIA.
New Shopsmith Mark 5 With Speed Dial

Here is the revolutionary new Shopsmith Mark 5—best, most modern and complete multi-purpose power workshop ever built. Incorporates new line-and-lobo-sawing features never before found in any power tool. Utilizes proven Shopsmith principle, combining bench saw, disc sander, lathe, vertical drill press and horizontal drill into one compact unit with no duplication of major assemblies. Shopsmith uses one spindle, one table, one motor and one frame. Ball bearing spindle is induction hardened, lubricated for life; tip is machined to tolerance of .0005-in. fit and to maximum run-out of .001 in. Big built-in 3/4-HP ball bearing capacitor motor provides adequate power for every operation. Aluminum alloy table, 14x18¾ in., provides precision base; integral milled fence bar assures perfect alignment. Rugged frame provides sturdy bench for all operations—centerless ground upper steel tubes are satin chrome plated to prevent rust and corrosion.

Speed Dial (see 1 below). Select spindle speed by turning dial to operation desired. Dial indicates correct settings for sawing, jointing, routing, dadoing, disc sanding, etc. Infinite speed range from 700 to 5200 rpm with a simple turn of the dial—no bells or pulleys to change—no calculating necessary.

Power Mount (see 2 below). The combination of twin tubular holes in headstock for mounting jointer and jig saw, a flexible coupling (order separately) and two auxiliary rear spindles driven by built-in motor. Through Power Mount, Shopsmith Mark 5 quickly and easily becomes a jointer or jig saw and can also be used for dual operations such as circular sawing and jointing or jig sawing and sanding without adjusting tool between operations. In addition, an infinite range of speeds is available for each operation through Speed Dial.

Depth Control Dial (see 3 below). Dial depth control on 4½-in. quill feed is simple and accurate—just turn depth dial to setting required and lock—it's ready to operate. There are no inconvenient stop nuts or rods to adjust.

Table Height Control (see 4 below). Quick release lever raises and lowers table—engages or disengages with simple turn.

Other special Shopsmith Mark 5 features include:

- **Dual-Lock Rip Fence.** One-knob control squares and locks front and rear of fence with a simple turn. Depth-of-cut scale engraved on both sides.
- **Saw Table Insert.** Protects saw teeth and table insert from damage. Protection on either side of insert slot provides clearance for saw teeth, though blade may be rubbing against projection.
- **Miter Gauge.** Has auto-stop at 45°, 90° and 45° for settings at most used angles. New taper-lock set screw in miter gauge bar locks miter gauge in any position in miter gauge slots.

Shopsmith does the work of these 5 tools:

- As a 5-in. Circular Saw (shown above). Has extra-large capacity—maximum depth of cut 2½ in.; 2¾ in. at 45°. Full 48 in. between blade and rip fence—you can saw on 8-ft. panel exactly in half. Perfect for crosscutting, ripping, dadoing, mortising, beveling, compound cut and other operations. With special 1½-in. dia. saw Arbor.
- As a Vertical Drill Press (see A on opposite page). Drills to center of 16½-in. circle—26 in. between chuck and table; as floor press, has 58 in. between chuck and floor. 4½-in. feed.
- As a 12-in. Disc Sander (see B on opposite page). Does plain, compound or beveled sanding. Large 113-sq. in. sanding area. Dial depth control on spindle quill feed permits bilateral control—you can feed disc into workpiece.
- As a Horizontal Drill (see C on opposite page). Capacity is unlimited—you can drill into any board that will fit into the workpiece. Adjustable table ht. makes dowel drilling easy, accurate.
- As a 34-in. Lathe (see D on opposite page). 1½-in. swing over ways. Maximum distance between centers, 34 in. Cup center eccentric mount permits controlled offset for turning tapers.

Standard equipment includes: built-in 3/4-HP 110-120 volt, 60 cycle AC ball bearing capacitor motor; bench ends and bench tubes; table extension; 9-in. all-purpose saw blade (with special 1½-in. dia. Arbor); 12-in. sanding disc; sanding sheet and adhesive; drive and cup centers; tool rest; rip fence; miter gauge; 3½-in. Jacobs keyed chuck; instructions. Shipped Prepaid promptly from Factories in Cleveland, Ohio or near Oakland, Calif., or from Stock in St. Paul, Kansas City, Des Moines or Ft. Worth.

54 WARD'S CHASE ST. 269.50

Be sure to see complete listings of Shopsmith attachments and accessories on Pages 56 to 59.
Sanding Discs, Adhesives, Dado Head

9 1/2 in. Sanding Discs. 12-in. diam. Precision machined, balanced. Speed work by ordering an extra disc for each grit. Order sandpaper below. 84 WTP 2977—1/4-in. arbor hole. Postpaid...$3.95

Metal Sandpaper Discs (11). 12-in. diam. Durable paper backing. For wood sanding. State grit wanted—fine, medium, coarse or assorted. 84 WTP 2978—Mailed Postpaid. Package of 6...$1.75

Liquid Adhesives. Fast-setting adhesive for sandpaper discs. Brush applicator. 84 WTP 3149—8 fluid oz. Mailed Postpaid...$0.95

Rust Preventive Spray. Protects exposed iron and steel surfaces against rust. 84 WTP 3148—12 fluid oz. Mailed Postpaid...$1.45

DISTIC Adhesive. Makes application and replacement of sanding discs easy. Stick-type. 84 WTP 2990—1/2 fluid oz. Mailed Postpaid...$0.95

MAGNA-LUBE. Special grease for Shopsmith drive spindle, spindle spline, quill rack teeth. 84 WTP 3101—2 fluid oz. Mailed Postpaid. ...$0.95

Saw Blades, Saw Arbor, Face Plates

9 in. Crosscut Saw Blade.* Special iron design for smooth, fast cutting across grain. Use when great deal of crosscutting is done. 84 WTP 3436—1/4-in. arbor hole. Postpaid...$3.45

9 in. All Purpose Saw Blade.* Rips and crosscuts, eliminates need of blade change for each specific operation. Mailed Postpaid...$3.45

5 in. Rip Saw Blade.* Designed especially for maximum efficiency when ripping. 84 WTP 3437—1/4-in. arbor hole. Postpaid...$3.45

3-in. Combination Saw Blade.* Rip-crosscutTER. Hollow ground blade tapers from teeth to center—less friction, less danger without heating up. For fine work and milling cuts. 84 WTP 3435—1/4-in. arbor hole. Postpaid...$5.95

3-in. 8-TOOTH SAWS Blade.* Rips and crosscuts with minimum power demand. Cuts cleanly and reduces "kickback." 84 WTP 3438—1/4-in. arbor hole. Postpaid...$3.45

1/4-in. Saw Arbor.* Required for use with Shopsmith 9-in. saw blades. An arbor on each saw blade simplifies blade changing. 84 WTP 3433—Mailed Postpaid...$1.50

Face Plates. Cast iron. Use for turning bowls, lamp bases and other workpieces which cannot be supported between centers. (9) 84 WTP 2982—3/4-in. diam. Postpaid...$1.95

(16) 84 WTP 2983—6-in. diam. Postpaid...$2.75

Adaptable Lamp Attachment. Attaches easily to lamp (33) and (38) on opposite page, or Shopsmith. Provides illumination directly on workpiece. Handy on-off switch located at lamp base. Includes cord and plug. 84 WTP 3443—Mailed Postpaid...$4.06

Extra Long Allen Wrenches. Specially made for Shopsmith. These wrenches fit all set screws used on Shopsmith and Shopsmith accessories. Store size. Mailed Postpaid...$9.95

*Items on this page marked with asterisk (*) are new Shopsmith items. All others are either old or new Shopsmith accessories.

Alloy Steel and Carriage-Tipped Turning Chisels

Carriage-Tipped Turning Chisels. Razor-sharp. For free hand turning of soft metal, plastic, wood. Postpaid...$8.95

(20) 84 WTP 2007—1/4-in. round nose...$3.95

(20) 84 WTP 2008—1/4-in. round nose...$3.95

(31) 84 WTP 2009—1/4-in. square nose...$3.95

4-Piece Chisel Set. One of each above. 84 WTP 2010—Postpaid. Set of 4...$14.95

Lathe Chisel Set. Alloy steel. Special selection of chisels most commonly used by skilled wood turners. Will handle all standard lathe operations. Set includes one (1) each of following: 1-inch skew; 1/4-inch gauge; 3/4-inch gauge; 1/4-inch round nose and 3/4-inch parting tool. Mailed Postpaid. 84 WTP 3131—Set of 5...$8.95

Tailstock Chuck Arbor. Holds Jacobs chuck in Shopsmith tailstock. No. 2 Morse Taper one end, 9/4-in. spindle with tapped flange other end. 84 WTP 3132—Mailed Postpaid...$1.25

Tailstock Live Center Unit. Ball bearing action. Mounted in lathe spindle. Will work with piece, eliminates need for regrivating because of "burning out." No. 2 Morse Taper Shank. 84 WTP 3109—Mailed Postpaid...$0.95

Power Tool Woodworking for Everyone. By R. J. DeCristoforo. Learn the correct method to use and operate Shopsmith. 450 illustrations. 120 pages. 1950 price. 53 WTP 1133 X—Mailed Postpaid...$4.95

Table Inserts.* Sturdy cast-aluminum alloy, Heavily ribbed. Mailed Postpaid. (20) 84 WTP 3445—No slot, (22) WTP 3447—Slots...$2.15

(24) 84 WTP 3441—1/2-in. saw slot...$1.50

(24) 84 WTP 3440—1/2-in. dado or molding head slot...$1.50

Screw Center. Holds small workpieces for boring, drilling or turning operations. Screw is replaceable with any No. 14 wood screw. 84 WTP 2950—Mailed Postpaid...$1.25

Arbors. Includes special keyway washer to prevent eccentric. Use with any arbor for mounting attachments on outside spindle. 84 WTP 2998—For 1/4-in. bore access. 84 WTP 2999—For 9/4-in. bore access. 84 WTP 3108—Mailed Postpaid...$1.50

Jawner-Chucker. For boring stock up to 9/4 inches thick. 2-in. diameter. Use with jars and shaper fence (84 WTP 3425 on Page 58). Three tool steel cutter blades are removable for sharpening and adjustment. Clips on spindle—use in either horizontal or vertical position. 84 WTP 3453—Mailed Postpaid...$9.95

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Accessories Make Shopsmith Even More Useful

**1 to 4. Mortising Accessories.** See illustration on opposite page. Eliminates tedious hand work when forming mortise and tenon joints and other joints requiring a square cavity.

1. **Mortising Attachment.** Guide chisel and bit for cutting accurate square holes. Machine cast iron. Use on horizontal or vertical drill press.
   84 WTP 3450—Mailled Postpaid........... 3.95

2. **Mortising Hold-Down.** Adjusts for varying thicknesses. Holds work to table securely. Cast iron.
   84 WTP 3451—Mailled Postpaid........... 1.95

3. **Mortising Bits.** Tempered steel. Use with mortising chisels below. Size 1/4, 3/8, or 1/2-in. size.
   84 WTP 3135—Mailled Postpaid........... Each 1.95

   84 WTP 3134—Mailled Postpaid........... Each 3.50


5. **Shaper Fence.** Controls depth of cut for shaping straight-edged boards. Locks to table. Infeed and outfeed fences adjust for depth of cut.
   84 WTP 3423—Mailled Postpaid........... Each 11.95

6. **Table Inserts.** Cast aluminum. For shaping curved work against collar. Removable fulcrum pins.
   84 WTP 3443—Mailled Postpaid........... 1.50

7. **Shaper Collars.** For controlled depth of cut on curved surfaces. Fit 1/2-in. shaper adapter. Set of four—46B to 1/4-in. outside diameter.
   84 WTP 3139—Mailled Postpaid........... Each of four 1.45

8. **Shaper Adapter Assembly.** Use for mounting transition shaper cutters. For cutters with 1/4-in. bore.
   84 WTP 3460—Mailled Postpaid........... 1.25

9. **Drum Sanding Accessories.** See illustration on opposite page. For sanding of narrow boards, contour sanding, sanding rebates to width. Sanding drum is adaptable for small polishing jobs using lambwool bonnet.

10. **Drum Sander.** Expanding rubber type. 3/4-in. to 1-in. With 1 medium grit sanding sleeve.
    84 WTP 2975—Mailled Postpaid........... 2.95

11. **Lambswool Pad.** Fine, medium, coarse. Sanding grit, Fin. of 6. 84WTP3133-Pkg. of 6. 1.25

12. **Lambswool Polishing Bonnet.**ropol. 84 WTP 3129........... .56

13. **Key Switch and Overload Switch.** Hold lock and key, extra outlet, 10-ft. cord. Postpaid.
    84 WTP 3432........... 6.95

**11 to 12. Flexible Shaft and Accessories.** See illustration on opposite page. Made especially for Shopsmith. For sanding, buffing, polishing, etc., with accessories below.

14. **Flexible Shaft.** Fits Shopsmith 1/4-in. spindle. 1/4-in. core, 50 in. long. All steel—complete ball bearing construction. Use with (20).
    84 WTP 3140—Mailled Postpaid........... 15.95

15. **Flexible Shaft Adapter.** Adapts any 1/4-in. shaft to Shopsmith spindle. Not required with (11).
    84 WTP 2956—Mailled Postpaid........... 2.95

16. **Assortment of Accessories.** Fits flex shaft or Shopsmith spindle. Holds grinding wheels, etc. postpaid.
    84WTP2928—Takes 1/4-in. bore accessories...
    1.50
    84WTP2928A—Takes 1/8-in. bore accessories...
    1.50

17. **Lambswool Pad.** Fine, medium, coarse. 84 WTP 3123—Mailled Postpaid........... 1.50

18. **Clove Buttering Wheels.** Fits 1/4-in. arbor.
    84 WTP 3127—6-in. diameter. Postpaid.
    75c

19. **Wire Brush Wheels.** For removing paint, rust, etc. Durable solid metal reinforced center.
    84 WTP 3125—Fine Wire, Postpaid........... 1.75
    84 WTP 3125—Course Wire, Postpaid........... 1.75

**Flexible Cut-Off Wheel.** Laminated linen impregnated with cutting abrasive. 8-in-diam., 3/4-in. arbor hole. For cutting metal, wood, TSP 3125—Mailled Postpaid........... 2.95

**Rubber-Bonded Abrasive Wheel.** 5-in-diam., 3/4-in. thick, 3/4-in. arbor hole. For sharpening and honing plane blades, chisels, etc.
    84 WTP 3460—Mailled Postpaid........... 3.95

**Universal Hold-Down Base.** Mounts on miter gauge. No rip fence or stop fence. Holds work securely against fence and table. Prevents chatter by holding work firmly when shaping, routing, sanding, etc. Holds odd shaped pieces firmly for cutting. Long mortising boring allows maximum adjustment in thickness and width of work. Can be mounted on any side of Shopsmith table in horizontal or vertical position.
    84 WTP 3426—Mailled Postpaid........... 7.95

**Miter Gauge Safety Trip.** Slightly curved polished edge prevents slip and it clamps your work securely against table and miter gauge. Maximum accuracy is assured, and your hands never come close to saw blade. Selects workpiece from creeping. Use whenever positive control is essential.
    84 WTP 3444—Mailled Postpaid........... 5.95

**SAW GUARD.** Modern designed guard covers entire surface of saw blade without limiting Shopsmith's versatility. Upper guard adjusts automatically to thickness of stock, house window for view of blade. Lower guard channels sawdust away from operator. Anti-skip bumps on saw cover prevents binding of teeth. Use with either without removing guards. With shipped.
    84 WTP 3435—Mailled Postpaid........... 11.95

**Front Table Extension.** Attaches front of saw table to extension table with single twist of knob. Increases working area in front of saw blade to 14 in. Gives added support to extra-wide workpieces.
    84 WTP 3459—Mailled Postpaid........... 3.95

**Miter Gauge Stop Rods.** Use with miter table. Adjustable from 0 to 18 in. Can be used on either side of miter gauge.
    84 WTP 3986—Mailled Postpaid........... 1.25

**Repeatability Factor.** Roll your Shopsmith easily to any job or out of the way for storage. A touch of your foot raises the bench 1/2-in. off floor for rolling, another touch and bench rests solidly on floor. With retractable casters your Shopsmith takes even less space. Steel swivel casters insure long life. Casters are quickly and easily installed. Bolts included.
    84 WTP 3431M—Mailled Postpaid........... 11.95

**Accessories Not Listed.** Accessory not listed on this page with asterisk (*) will fit new Shopsmith Mark 5 only. Accessories without asterisk will fit both original Shopsmith and the new Mark 5. See other Shopsmith accessories on Pages 56 and 57.

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