POWR-KRAFT

BETTER POWER TOOLS

80 New Improvements for 1941 MONTGOMERY WARD

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Time Payment

Don't let a cash shortage stop you from buying those power tools <u>NOW</u>, when you need them! Start a Time Payment Account at Wards on any purchase of \$10 or over! Only \$2 down, the balance monthly. Carrying charge on unpaid balance only.

Better Power Tools!

COMPARE WARDS TOOLS WITH THE MOST EXPENSIVE YOU CAN BUY



Even the hidden parts of the new 1941 Powr-Kraft tools are manu-

factured with extra-precision. No expense has been spared to give you the best

power tools that money can buy.

The latest in mechanical fea-

tures and streamlining have been combined to make Wards power tools the best



ever. Every part in Ware's power tools is made of the highest quality

materials. Regardless of how small the part, each one must pass ex-

acting laboratory standards.



Thousands of satisfied customers

using Wards Powr-Kraft tools testify as to their durability and high quality.

... at lower prices!

BUY AN EXTRA TOOL WITH THE MONEY YOU SAVE AT WARDS!



Here's why Wards can sell BETTER quality power tools for LESS. Wards

method of doing business is ECONOMICAL! The manufacturer saves

when he SELLS to Wards (no salesmen, no



advertising costs, no

credit losses, no "extra"



costs). Wards cost of doing business

is ALSO less, because it is done in huge quantities (650 Retail



Stores and 9 Mail Order Houses). It's perfectly natural that

Wards economical way of doing business results in EXTRA SAVINGS. These savings are passed on to YOU...part in EXTRA QUALITY and part in LOWER PRICES!



Here's What You Get...

7-INCH BENCH SAW

No. 84-885. Has miter gauge and rip fence. Complete information on page 4.

12-INCH JIG SAW

No. 84-871. It has Torsion-type Spring. Learn more about this saw on page 8.

GAP-BED LATHE

No. 84-636. Complete with built-in grinding wheel, sanding, drilling parts.

STEEL WORK BENCH

It's rigid; won't vibrate. Rubber cushioned feet. 66 in. long, 22½ in. wide.

WOODWORKING CHISELS

Chisels include ½-in. gouge, ¼-in. skew, and parting tool. Vanadium steel.

ASSEMBLING PARTS

All necessary belts, pulleys, shafts, bolts, arbors, nuts and washers.

ACCESSORIES INCLUDED

Package sanding discs, package of 12 jig saw blades, and drilling chuck.

The most complete workshop we know of . . . priced lower than we ever thought possible! Not a plaything . . . but a man-sized outfit of regulation Powr-Kraft tools. Do sawing, turning, drilling, grinding, sanding . . . make furniture, lamps, toys . . . enjoy a profitable and useful hobby with this complete Home Workshop. It's designed for greatest convenience to operator; all tools are operated from line shaft and motor mounted below top of bench, down out of the way. Gives greater working space.



Make these and
a score of
other things
with this
Workshop.

JOBS YOU CAN DO WITH A BENCH SAW:-









The bench saw is the primary machine of a home workshop, and does all the sawing operations listed above. It's the workshop tool you will want to buy first. Start YOUR workshop NOW with Powr-Kraft . . . The Best!

Powr-Kraft BENCH

Repair parts for POWR-KRAFT tools are always available at Wards.

758 829

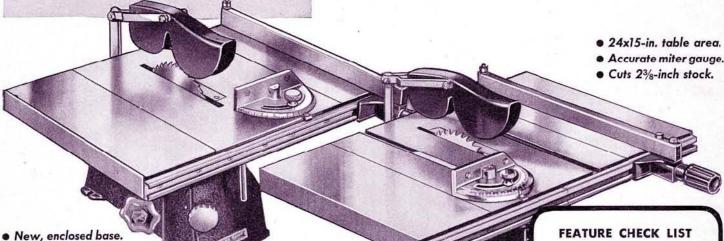


Table tilts to 45°.

• Cuts 21/4-inch stock.

\$2 DOWN, \$2 MONTHLY

IMPROVED 7-INCH SAW

Improved appearance...easier-to-get-at table controls. 10x14-in. cast table has removable insert for dado head. Rigidly braced rip fence. Improved steel fence guide. Miter gauge. Approved safety guard, with splitter. Self-lubricating bronze bearings. 1/2-in. spindle arbor. 7-in. combination saw blade. 13/4-in. "V" pulley.

84 R 758—Saw only
84 R 759-With Steel Table Extensions, increases
area to 20 x 14-in

8-INCH BENCH SAW

This saw has many features of our heavy-duty machines, yet is priced amazingly low. Large 24x15 table area (with extensions). Table tilts on husky double trunnions, locks at any angle up to 45 degrees. Ball crank and gear, plus compensating spring, permits gradual raising or lowering of table (no belt adjustments necessary).

84 R 829-Saw	only.				19.25
84 R 873-With	No.	9861	1/3-H.P.	Motor,	4-in.
V-pulley and 44-	in. V	belt.			29.75

	730	027
Blade Size	7"	8"
Depth of Cut	21/4"	23/8"
Bearings	Bronze	Bronze
Cast Table Size	10"x14"	12"x15"
Table Size with Ext	20"x14"	24"x15"
Table Trunnions	Front	Front
	and	and
	Rear	Rear
Tilting Adjustment	45°	45°
Clearance Ahead of	744910	-2460
Blade	413/16"	51/4"
Spindle	1/2"	5/8"
Drives	From	From
	below	below
	or	or
EG = 167.60 10 00	behind	behind
Speed Recommended.	3250	4000
III.	R.P.M.	R.P.M.
Motor Recommended. Machine Pulley	⅓ H.P.	1/3 H.P.
Supplied	13/4"	13/4"
Motor Pulley	4	1750
Recommended	31/4"	4"

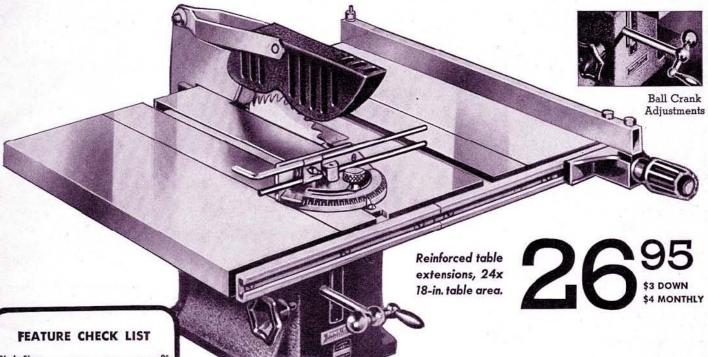


IT'S PRECISION BUILT

Ideal for the beginner, who is changing from hand tools to a power workshop. Rips, cross-cuts, miters, grooves. Table rides on double, machined steel posts, not single! With 134-in. "V" pulley. Can be driven from below or behind. Open base, otherwise same as No. 758 above.

84 R 885—Saw only 8.95
84 R 872—With Steel Table Extensions, increases the
table area to 20 by 14 inches

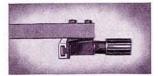
SAWS at Amazing Low Prices!



Blade Size8"
Depth of Cut
BearingsNew Departure Ball
Casi Table Size12"x18"
Table Size with Extension24"x18"
Table TrunnionsFront and Rear
Tilting Adjustment45°
Clearance Ahead of Blade71/2"
Ground Steel Spindle5%"
DriveFrom Below or Behind
Speed Recommended3890 R.P.M.
Motor Recommended 1/3 H.P.—1750 R.P.M.
Machine Pulley Supplied 21/4"
Motor Pulley Recommended 5"
Mounting Dimensions71/2"x111/4"
Recommended Mounting. Stand No. 84-8791



Grease sealed New Departure ball bearings.



Improved, rigidly braced channel iron rip fence.

IMPROVED 8-INCH BENCH SAW

Others ask dollars more for this quality. Extra large cast-iron table with reinforced steel extensions . . . tilts on heavy double trunnions to 45° angle . . . gauge shows degree of tilt. Table insert removable for dado head. Compensating spring permits easy adjustment of table . . . prevents back lash. Anti-kick attachment prevents "kick-backs." Approved safety guard meets all State safety codes. Accurate miter gauge has cut-off rods. Spindle with %-in. arbor. Table has 7%-in. clearance ahead of blade. Finest quality rip and cross-cut blade.

84 R 683—Saw	only.					4	6.95
84 R 682-With	No.	9861	1/3-H.P.	Motor,	5-inch	V-Pulley	and
44-inch V-Belt.						3	7.50



COMBINATION SAWS

Firest quality crucible alloy steel with sharp teeth. Carefully tempered, hand filed, hammered and set... no binding or buckling. Cut fast, clean and smooth in any kind of wood. Will rip or cross-cut....84 R 284.

Diam. In.	Ga.	Size Hole	Each
6 7	18 18	1/2 in.	\$1.00
8	18	5/8 in.	1.49

CROSS-CUT SAWS

Specially refined saw steel, tougher, holds keen cutting edge longer. Oil tempered in electrically controlled furnaces. Hand hammered for perfect balance, filed and set. Deep sawdust freeing gullets. 84 R 260.

29 49

COMBINATION SAWS

Diam. In.	Gauge Taper	Size Hole	Each
7	15 to 18 15 to 18	1/2 in.	\$2.75
10	15 to 18	5/8 in.	3.15
TU	14 10 17	78 III.	4.13

DADO SAWS

For grooving and rabbeting. Heat treated and tempered. Complete set consists of 2 outside blades and 6 inside chippers. 4-inch set has ½-inch diameter bore, 5-in. set has ½-inch bore. All are made from alloy steel.

State Diam.	84 R 785 Complete	84 R 716 Blade	84 R 715 Chipper
4 in.	\$2.45	60c	25c
5.in.	3.39	95c	30c

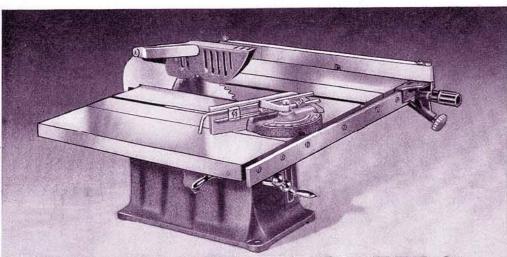
6-INCH DADO SET

Precision ground, correctly heat-treated and tempered tool steel for smooth cutting. Standard ¼-inch bore for 8 and 10-in. Ilting arbor saws only. Complete set consists of 2 outside blades each about ¼-inch thick and 4 inside chippers... 2 are ¼-inch thick, 1 is ¼-inch thick and one is ¼-inch thick. Use on bench saws for grooving and rabbeting. \$48778—Complete set 8.95

ADJUSTABLE LIGHT

Helps you do more accurate work ... saves your eyes. Has highly polished reflector. The end plate is designed for attaching to any convenient bolt or screw. Can be used especially well on band saws, jig saws and drill presses. Length overall about 10 inches. Takes 25 watt bulb (not furnished). Aluminum reflector has push key socket. 8-ft. rubber covered cord and plug. 84 R 8866. ... 1.25

Here it is! WARDS SENSATIONAL TILTING



10-INCH TILTING TABLE BENCH SAW

A real production saw that's precision built... perfectly balanced...smooth running. New Departure ball bearings. Table has extra-large 27x23 working area. Cuts stock up to 31/4-inch thick. Has miter gauge and rip fence plus specifications listed below. 84 R 692.

44⁵⁰

\$5 MONTHLY, Carrying Charge

8-INCH TABLE SAW

A heavy-duty ball-bearing saw for the small manufacturer and home workshop. It has all the features of the 10-inch saw above but is smaller in size. Cuts stock up to 2%-inch thick.

FEATURE CHECK LIST

	690	692
Blade Size	8"	10"
Depth of Cut	23/8"	33/8"
Bearings	New De-	New De-
bearings	parture Ball	parture Ball
Cast Table Size	15"x19"	15"x23"
With Extensions .	27"×19"	27"x23"
Table Mounting	Double	Double
APPROXIMENTS CONTRACTOR	Trunnions	Trunnions
Tilting Adjustment	45°	45°
Clearance Ahead	68.51	1155
of Blade	73/16"	101/4"
Spindle	5/8"	5/8"
Drives	From Below or Behind	From Below or Behind
Speed Recom-	(VEE/10/08/02/09)	DAMEST VOICE
mended	3890 R.P.M.	3200 R.P.M.
Motor Recom-	Distriction of the last ten	(SANIES A
mended	1/2 H.P.	1/2 H.P.
Saw Pulley	0.00004	22.14
Supplied	21/4"	21/4"
Motor Pulley	250	
Recommended	5"	4"
Mounting Dimen-		
sions of Saw	73/8 ×	73/8"x
	1616"	163/16"



Micro-set rip fence has patented slide...moves smoothly; no binding; operates on either side of blade.

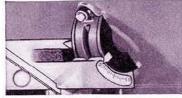


Table mounted on precision built double trunions, table will tilt and lock to any angle up to 45°.



ARBOR PRODUCTION SAW

27-inch Table Area, NEW DEPARTURE Ball Bearings.
121/4" in front of blade.

69⁹⁵

\$6 DOWN \$7 MONTHLY Carrying Charge

New 10-in. Tilting Arbor Floor Model. Large 30 by

- Cuts 3³/₈-in. stock ³/₈-in. more than some others.
- Rip fence fastens front and back.... Patented microset for accurate setting of fence.

For professional craftsmen and large industrial shops. Stand has cast-iron corner supports enclosed in heavy stamped steel. Full 12¼-in. clearance in front of blade. The double trunnions, raising and tilting mechanisms are carefully machined and balanced for smooth operation. Motor mounts back of saw and tilts with arbor.

The alloy-steel spindle has 5%-in. arbor, and is equipped with 10-in. crucible steel combination rip and cross-cut saw blade. Plus all these features which craftsmen appreciate:—removable table insert for dado heads, exclusive micro-set rip fence, approved safety tilting guard and splitter, accurate miter gauge with cut-off rods, sawdust chute and improved anti-kick back attachment. Complete with 2½-in. V-Pulley. Height to top of table 35½ inches.

FEATURE CHECK LIST

	761	764
Blade Sixe	10"	8"
Depth of Cut	33/8"	23/8"
Bearings	New Depar- ture Ball	New Depar- ture Ball
Cast Table Size	18"x27"	15"x23"
Table Size with Ext.	30"x27"	27"x23"
Table Mountings.	Double Trunnions	Double Trunnions
Depth Adjustment	Ball Crank	Ball Crank
Tilting Adjustment	45°	45°
Clearance Ahead of Blade	121/4"	103/8"
Spindle	5/8"	5/3"
Drive	From Below and Behind	From Below and Behind
Speed Recom- mended	3200 R.P.M.	3890 R.P.M.
Motor Recom- mended	3/4 H.P.	1/2 H.P.
Saw Pulley Supplied	21/4"	21/4"
Motor Pulley Rec- ommended	4"	5"

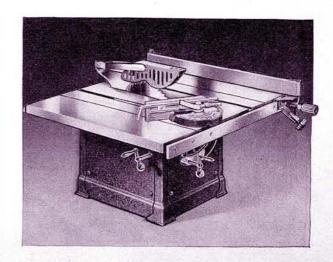
8-IN. TABLE SAW

Tilting 4675

Easy Terms on Orders of 10 or More!

Our finest table-model saw. It's ideal for the craftsman or light manufacturing. General features are the same as floor model above, except the following: Table top area is 27 x 23 inches, clearance ahead of blade is 10¼ inches. Has 8-inch combination blade which cuts stock up to 2%-inch thick.

84 R 764—Ship. wt. 115 lbs. . . 46.75 84 R 765—With No. 9842 ½-H.P. Motor, 37 in. V-Belt & Pulley . . . 62.25



JOBS YOU CAN DO WITH A JIG SAW:-







STRAIGHT

CIRCULAR

SCROLL

No shop is complete without a Jig Saw. It is essential for the fine sawing jobs, and is the only saw that will cut inside curves.



BLADE GUIDE

Hardened steel roller guide. The supporting arm adjusts to depth of cut.



TABLE TRUNNIONS

Table mounted on big trunnions with double ways machined in the casting.



JIG SAW FILES

Do away with those slow tedious hand filing jobs. Refined saw file steel—hardened and tempered. Sharp cut teeth. For Wards 16 or 26-in. jig saws.

FEATURE CHECK LIST

Capacity16*
Table Size10"x10" Cast Iron
Table SupportDouble Trunnions
Tilting Adjustment45° one way; 30° other way
Crank Shaft Assembly
SpringCantilever Type
Chuck-Hardened Steel
BearingsBronze
Blade Guide
Speed Recommended 1065 R.P.M.
Motor Recommended 1/4 H.P. 1750 R.P.M.
Machine Pulley Supplied
Molor Pulley Recommended 21/2"
Blower
Upper ArmRemovable
Blower

POWR-KRAFT JIG



84 R 768—For 12 and 15-inch model saws......45c 84 R 756—For 16 and 26-inch model saws.....45c

2125 \$3 DOWN \$3 MONT

IMPROVED 16-INCH SAW

Built for professional work. Hardened alloy steel and nickel babbitt crankshaft (not ordinary die cast parts) runs in oil bath. Saws to the center of a 32-inch panel . . . remove upper arm for unlimited capacity. Self lubricating bronze bearings with extra bearing added to crankshaft. 10×10 -inch cast iron table tilts on double trunnions up to 45° one way, 30° the other way—accurate tilt gauge. File chuck included. Complete with 4-inch V-pulley.



pecial! 12-INCH JIG SAW

 $\mathbf{5}^{45}$

- Runs in oil bath
- Torsion-type spring
- Table tilts to 45°

Saws easily to the center of a 24-inch panel. Tempered Nickel-Steel Cam bears on cast cross head with fiber insert... lasts longer than die cast parts. 8½-in. diameter table has accurate tilt gauge and tilts on double supports. Adjustable blade guide and holddown foot. Use 5-in. plain end blades.

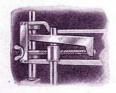
84 R 871-12-inch Jig Saw, 4-in. pulley . 5.45

SAWS MORE FEATURES FOR YOUR MONEY 9



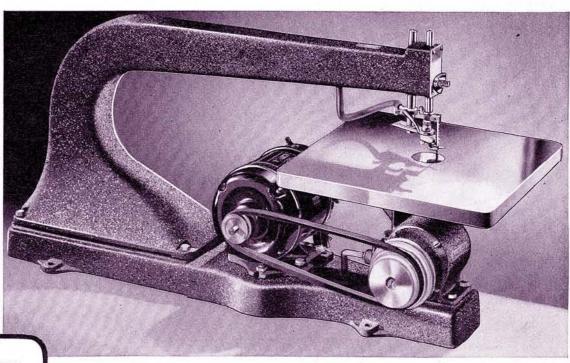
DOUBLE TRUNNIONS

Table tilts on new, huskier, double trunnions to 45 degrees one way, 12° other.



TENSION ADJUSTMENT

Spring blade adjustment keeps blades at proper tension . . . reduces breakage.



FEATURE CHECK LIST

- · Saws to the center of a 52-in. panel . . . remove upper arm for unlimited capacity.
- Extra bronze bearing added to crankshaft.

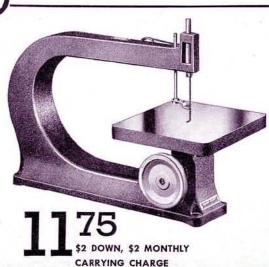
IMPROVED 26-IN. JIG SAW

Built for heavy production work. Heavily ribbed 15 by 15-inch machined cast iron table tilts on new, huskier double trunnions. New, easier to read depth gauge. Crankshaft runs in bath of oil. Blade travels on edge (not side) of hardened-steel roller guide. Chuck for files included.

84 R 775—Saw with 4 step V pulley	50
84 R 776—With No. 9854 motor, pulley and V belt39.	95
84 R 9960—4 Step Motor Pulley, for above saw, 1/4" bore. 7	5c

BLADES Fit any saw

Highest quality steel. About 5" long. For jig and scroll saws. 84 R 8784-Plain end, 10 or 15 teeth per inch, Pkg. of 12....15c 84 R 8783—Plain end, 18 teeth per inch. Package of 1235c 84 R 8775—Pin end, assorted sizes. Package of 12.....35c Saber Blades - About 5 in. long. 84 R 8781—% inch wide. Package of 3 blades 19c



Reinforced...Box Type Frame Mechanism Enclosed in Oil Bath

15-INCH JIG SAW

Cuts to center of 30-inch panel. Has improved built-in blower. Heat-treated cam action with fiber lined cross head. Torsion-type spring on upper shaft, compression spring on lower. 9x9-in. table tilts to 45°. With 4-in. V pulley.

84 R 839-15-inch Jig Saw. Use 2-in. pulley on

JOBS YOU CAN DO WITH A BAND SAW:-







The band saw is made for light or heavy sawing jobs, and is especially suitable for sawing outside curves.



ADJUSTMENTS

Spring adjustment on upper wheel regulates the tension on band saw blade.



BEARINGS

Equipped with famous, grease sealed New Departure Ball Bearings.

FEATURE CHECK LIST

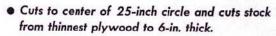
Capacity
Depth of Cut
Table Size12"x12
Table Size with Wood Extensions . 165/8"x12
Table SupportDouble Trunnions
Tilting Adjustment45
BearingsNew Departure Bal
Rubber Crowned Wheels
Wheel GuardHinged one-piece cast iron
Blade Guides
Tension AdjustmentHand Knob
Length of Blade78
Width of Blade
Speed Recommended 673 R.P.M.
Motor Recommended 1/3 H.P. 1750 R.P.M.
Machine Pulley Supplied 61/2"
Motor Pulley Recommended 21/2"

POWR-KRAFT BAND

12½-INCH

HEAVY-DUTY BAND SAW

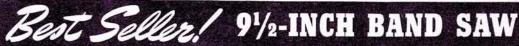
\$3 DOWN, \$4 MONTHLY **Carrying Charge**



- Exclusive concave roller blade guides.
- Table tilts to 45° on double trunnions.

 Has a heavy one-piece cast iron guard which opens easily (by loosening one screw) for making quick changes of the band-saw blade.

This saw is built to professional requirements, yet priced for the average shopowner. A tool that's twice as strong as most people would consider "strong enough" . . . with weight, rigidity and smoothness to perform unfailingly. Concave rollers for guiding blade above and below the 165x12-in. table. Plus features at left.



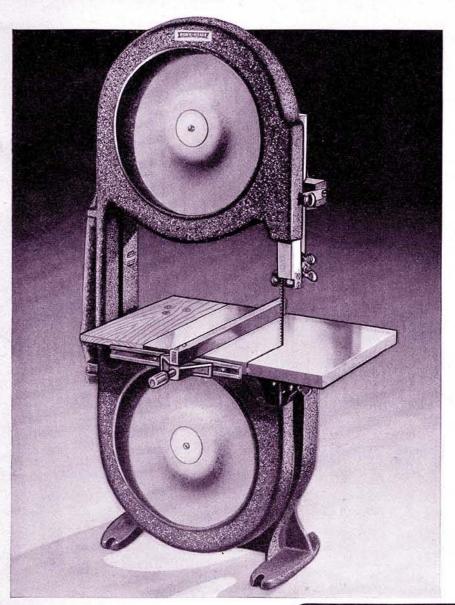


 Cuts to center of 19in. circle in stock up to 41/2 inches thick.

9x9-in. cast table.

An extra-fine saw for the home workshop where a large capacity tool is not necessary. It rips, cross-cuts and cuts all types of outside curves. 131/2 x 9-in. table area with extension. 91/2-in. rubber crowned wheels. Self lubricating bronze bearings. Table tilts to 45°. Has 60-in. blade. Run at 875 R.P.M.

SAWS at Less Than You'd Expect to Pay!





BAND SAW BLADES

Proper gauge for all average work. Electric butt welded. Correctly heat treated, tempered, filed and set.

STANDARD LENGTH BLADES

84 R 746—For cutting wood. Available in 1/8, 1/4, 1/4-in. widths. 60-in. around. For No. 845 Saws. Each. . 85c 78-in. around. For No. 852 Saws. For No. 766 Saws. Each......1.25 **84 R 750**—Blade 111-in, around. 1/4, 1/4, 1/4-in, widths. 1.25 1/2 and 1/4-in, widths. 1.35 84 R 757-For soft metal. 3/8" wide. 60-inch around. For No. 845 Saws. 78-inch around. For No. 852 Saws. Each......1.00

95-inch around. For No. 766 Saws.

BLADES PER FOOT

Same quality blade as at the left. 6 teeth per inch. Any length, but you pay for the next even foot. Add 38c per weld. You pay postage from Factory in Chicago. 84 R 760.

Width, In.	Per Foot
1/4	9c
3/8	10c
1/2	11c
5/8	12c
3/4	14c
- 1	15c
11/4	20c
11/2	24c

FEATURE CHECK LIST

Capacity
Depth of Cut
Cast Table Size
Table Size with Wood Extensions 15"x21"
Table SupportFront and Rear Trunnions
Tilting Adjustment
BearingsNew Departure Ball
Wheel Guard., Hinged one-piece Cast Iron
Blade Guides
Tension AdjustmentHand Knob
Rubber Crowned Wheels15" in Diameter Length of Blade95"
Width of Blade3%"
Speed Recommended 675 R.P.M.
Motor Recommended . 1/2 H.P. 1750 R.P.M.
Machine Pulley Supplied 61/2"
Motor Pulley Recommended 21/4"

Wards New 15-Inch

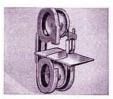
PRODUCTION SAW

\$5 MONTHLY

- · Cuts to center of a 30-inch circle.
- Cuts stock up to 63/4 inches thick.
- New Departure Ball Bearings.
- One piece cast safety guard.

Meets exacting professional requirements . . . adaptable for metal cutting. Big 15 by 15-in. cast iron table mounted on husky double trunnions . . . tilts to 45° to right and 3° to left. Wood extension increases table area to 15 by 21-in. Blade runs on entire surface (not edge) of concave rollers, can't groove. Hardened steel (not soft bronze) blade guides above and below table. Balanced, 15inch rubber crowned wheels. Upper wheel mounted in machined ways. Height overall about 41 inches. Equipped with handy rip fence.

84 R 766 —Band Saw only	.50
84 R 767-With No. 9842 1/2 H.P. Motor, 21/2-	in.
V-pulley and 53-in. V-belt	.95
84 R 710—Steel Stand for Above 6	.50



1-PIECE GUARD Heavy cast guard opens easily to change blades.



On upper wheel for adjusting blade tension.



ROLLER GUIDE Blades run on patented concave roller guides.



BALL BEARINGS Are famous grease sealed New Departure type.

DRILL PRESSES

- 15-Inch Drill Press
- Jacobs Key Chuck
- New Departure Bearings

3125 \$4 DOWN \$5 MONTHLY

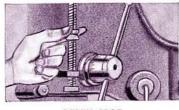
A precision built, heavy-duty drill press for the craftsman. Drive pulley mounted independently . . . supported by 3 grease sealed ball bearings with bronze bearing to take up radial load. Ball thrust bearing. Chuck to table 13½-in.; chuck to base 17-in. Quick action quill to hold spindle at any depth of cut. Safety guard on spindle. See drill press accessories on page 14.

FEATURE CHECK LIST

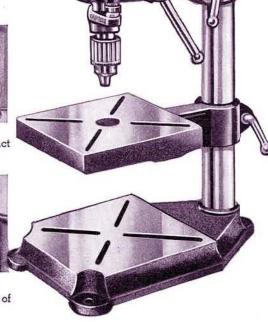
Capacity	/2"
Table To Chuck13	/2"
Base to Chuck	14"
Chuck 16" to 1/2" Jacobs Key Chu	ıck
Type BearingsNew Departure B	all
Speed Range 600 to 5200 R.P.	M.
Table Size 8"x9" tilts to	45°
Base Size (Ground Surface)9":	x9"
Spindle6-spline	5/8"
Spindle Travel3	1/2"
Belt AdjustmentVertical and Horizon	tal
Column Diameter2" Colu	mn
Motor Recommended 1/3 H.P. 1750 R.P.	м.
Machine, Motor Pulley Supplied 5"-4-S	tep
Mounting Recommended . Stand No. 84-87	91



DEPTH GAUGE
Accurately calibrated to show exact depth of cut.



To duplicate drilling a number of holes to the same depth.



Bargain! 12-INCH DRILL PRESS



95 \$2 DOWN \$2 MONTHLY

Does the Work of Higher Priced Tools, Start Your Shop With Powr-Kraft! A bench drill that meets all the requirements of the amateur craftsman, who is starting a home workshop. It drills to the center of a 12-in. circle, and has a spindle capacity of $3\frac{1}{2}$ ins. 3-jaw chuck takes drills up to $\frac{1}{2}$ -in. diam. Maximum distance of chuck to table $7\frac{3}{4}$ -in. Spindle fitted with self-lubricating bronze bearings. Has circular depth gauge to indicate depth of cut. Speed adjustments from 700 to 4000 R.P.M.

for all-around workshop service

It's big capacity . . . low priced! Ideal for the home workshop. This 141/4-inch drill press is priced so low that any craftsman can easily afford to buy one. Sells for dollars more elsewhere!

FEATURE CHECK LIST

Capacity
Table to Chuck
Base to Chuck14"
3-Jaw Chuck takes DrillsO-1/2" in Diameter
BearingsBronze
Speed Range700 to 4000 R.P.M.
Table Size
Base Size8"x8"
Spindle6-spline 5/8"
Spindle Travel
Belt AdjustmentVertical and Horizontal
Column Diameter15%
Motor Recommended 1/3 H.P. 1750 R.P.M.
Machine Pulley Supplied 4"—4 step Pulley
Motor Pulley Recommended4"—4 step Pulley
Recommended Mounting . Stand No. 84-8791

Tongue and

groove cut for

making flooring.

- Drills to Center of 141/4-In. Circle.
- Self Lubricating Bronze Bearings.

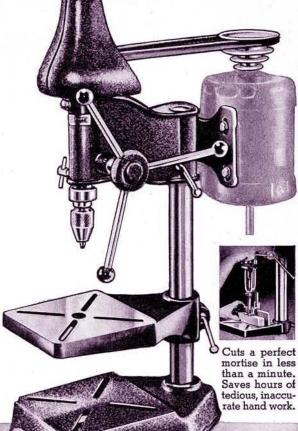
6-spline spindle, 5%-in. diameter (similar to spindles on larger models) travels 31/2-in. Ball bearing end thrust. Maximum distance chuck to table 11 inches, chuck to base 14 inches.

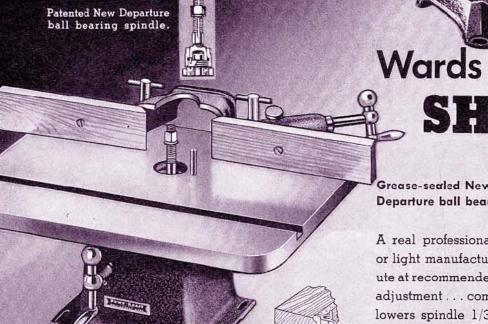
84 R 627-Drill Press only 17.50 84 R 628-With 1/2" Jacobs Chuck 22.50 84 R 629-No. 627 Drill Press with No. 9861 1/3 H.P. Motor, 4-step V-pulley and

Make quarter

round, window

sash, moulding.





Wards Heavy-Duty SHAPER

Grease-sealed New Departure ball bearings

A real professional tool for the master craftsman or light manufacturer. Makes 22,500 cuts per minute at recommended speed of 7500 R.P.M. Precision adjustment . . . complete turn of ball crank raises or lowers spindle 1/32-in. Front guide face has ball crank for depth of cut. With starting pin, adaptor wrench and 21/4-in. pulley. Use 8-in. pulley on motor. Use either 5/16, or 1/2-inch cutters. 14 x 18-inch stationary table. No cutters included . . . 84 R 865.

FOR SHAPER CUTTERS, SEE PAGE 15

NEW DEPARTURE BALL-BEARING DRILL



SANDING

Sanding drum can be quickly attached for many sanding jobs.



ROUTING

Use router bits below for cutting grooves and inlay work.



SHAPING

Shaper operations are easy with shaper accessories below.

FEATURE CHECK LIST

	621	623
Capacity	71/2"	71/2"
Table to Chuck	13"	43"
Base to Chuck	181/2"	481/2"
Chuck	Jacobs	Jacobs
Chuck Size	0-1/2"	0-1/2"
Bearings	New De- parture Ball	New De- parture Ball
Speed Range	600 to 5200 R.P.M.	600 to 5200 R.P.M.
Cast Table Size	10"×10"	10"×10"
Base Size Over-all	125/8" x 193/4"	213/4"×145/8"
Spindle	5/8"	5/8"
Spindle Travel	4"	4"
Belt Adjustment	Vertical and	Vertical and
	Horizontal	Horizontal
Column Diameter Motor Recom-	23/4"	23/4"
mended	⅓ H.P.	1/3 H.P.
Machine and Motor Pulley	F. 4 C.	F! 4 Ft
Supplied	5" 4-Step	5" 4-Step



Routing and Mortising Cutters

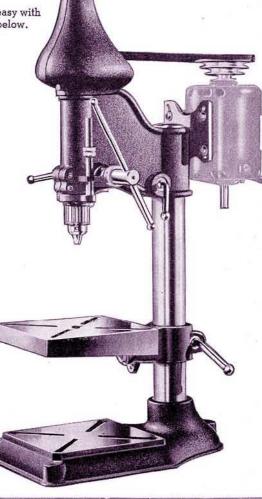
No.	Key	Size	Price
641	1	1/16 OF 1/8	59c
641	2	3/16	59c
641	2	1/4	65c
641	3	3/8	79c
641	3	1/2	89c
641	4	5/8	\$1.00

15-in. Bench Model

Our finest bench-model drill press . . . built for heavy-duty production work. With the use of accessories below, you can do routing, mortising, shaping, sanding and drilling. Drive pulley and spindle are mounted on three sets of New Departure Ball Bearings for smoothness and accuracy. It has a maximum capacity of 181/2-in. from base to chuck, will drill to a depth of 4 inches in wood or steel. Motor adjusts vertically or horizontally. 10x10inch table tilts 45° right or left.

84 R 621—With Pulley and Belt 36.50

84 R 622—Drill Press above and No. 9861





HOLLOW CHISELS AND BITS

For making close-fitting joints with a drill press. Bit revolves inside hollow chisel and travels slightly ahead of it. Bit drills a round hole-chisel trims corners to make a square hole. Especially useful in making furniture where mortised tenon joints are essential for gluing. Finest tool steel (not ordinary carbon steel). Heat-treated to hold a keen edge. 14, 3/8 or 1/2-inch size.

Art. Number	Item	Each	
(5) 84 R 8860	Chisel	\$1.45	
(6) 84 R 8861	Bit	1.25	

MORTISE HEAD-CHUCK

(7) Takes place of Jacobs Chuck on drill press. Holds hollow chisels and bits used for mortising. Set includes cast-iron holder, chuck and collet.

84 R 8950 - Fits drill presses 84 R 628 and 84 R 593....2.39 84 R 8951 - Fits drill press 84 R 621 and 84 R 623 2.39

MORTISING HEAD ONLY

This mortising head fits the 84 R 627 drill only. No chuck is needed with it as the chuck on the drill press will hold the bits.

MORTISING HOLD DOWNS

(8) Holds work on table during up-stroke of chisel. Raised or lowered on vertical rod carried in casting at back of fence. Assures a true-square mortise. For stock to 41/2 inches.

DRILL PRESS VISE

(9-10) Holds small work. A convenient accessory for holding work solidly when drilling. Overall length 81/4-in. 21/4-in. jaws open to 3-in. Two jaws are included which make this vise an ideal jig.

84 R 8858 1.95

DRILL PRESS ACCESSORIES

(11) Shaper Guard and Fence. Make your drill press a spindle shaper. Similar to fence with shaper, 84 R 865.

SHAPER CUTTERS ADAPTORS

(12) Replaces chuck on drill press for converting drill into heavy-duty shaper for making moldings and picture frames, and for finishing table edges. Fit drill presses 84 R 621, 84 R 623, and 84 R 593.

84R9992 for 5/6-in. cutters . . 75c 84R9993 for 1/2-in. cutters. .75c

PULLEY ATTACHMENT

(13) Use in place of motor bracket on any bench model drill press. Drives from line or jack shaft.

84 R 8865—Each.......1.95

DRILL PRESS COLLAR

(14) For any drill press with 2½-in, column, Locks on column to permit swinging of drill head.

HOLD DOWN FOR SHAPER

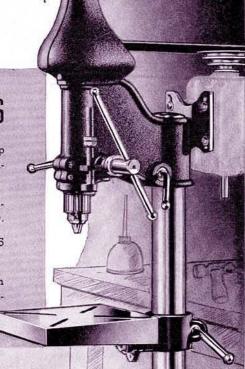
(15) Holds work against table. Can also be used on table saw and jointer. Adjustable. Clamps

PRESSES

FEATURES COMMON TO BOTH MODELS

- · Drive pulley, supported by 3 sets of New Departure grease-sealed Ball Bearings, prevents binding from belt tension.
- Improved-design spindle mounting gives greatest supported area of any drill press within dollars of Wards price!
- · Convenient motor mounting adjustment for correct belt tension at all times.
- Equipped with famous, 0-1/2-inch Jacobs Key Chuck at no extra charge.

- Ball-bearing in chuck spindle takes-up both radial and thrust load for more efficient smooth running.
- · Self-lubricating bronze bearings, between ball bearings, prevent whipping.
- · Heavy cast table tilts and locks to 45 degrees in either direction.
- · Adjustable graduated depth gauge, with positive lock stop, insures uniform drilling depth at all times.

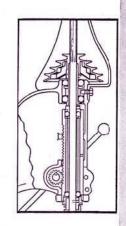


15-INCH FLOOR MODEL

- Famous Jacobs Key Chuck.
- Ball Bearing Head Stock.
- Table Tilts to 45 Degrees.

This extra heavy-duty drill press is precision-built to the finest degree. It's especially designed for manufacturers, garages, blacksmiths and machinists. With the attachments on opposite page, you really have 5 tools in one. It has a range of speeds from 600 to 5200 R.P.M. Check all the features and specifications above and on the opposite page.

84 R 624-Drill Press (above) complete with No. 9861 1/3-H.P. Split-



Drive pulley supported by 3 oversize New Departure grease-sealed Ball-Bearings: Extra ball-bearings in chuckspindle take-up radial and thrust load. Self-lubricating bronze bearing between ball bearing prevents whipping.

SHAPER













CUTTERS

5/16-IN. SHAPER CUTTERS

Tough chrome vanadium tool steel...carefully tempered so that the keen edges stay sharp longer than ordinary steel cutters. Special grinding of cutter heel eliminates friction drag.



Shaper Knife Blades Collars above. 21/8 x 3/6.
84 R 8810 — 1/2-inch
width. Pair..... 1.35
84 R 8810—1-inch
width. Pair..... 1.89

Set of 24 CUTTERS All 5/6 cutters at right. With 6 depth

Washers, 84R8882—Set 12.25 DEPTH WASHERS Assorted Diam. 5/6-inch bore. 84 R 8880—Set of

K	>/	9		
			5	
Tuno	Width	Diam	Type	Widt
Type 2	Width 177-in	Diam.	Туре	Widt
Type 2 2	.177-in.	.95-in.	Type 3	.125-i
Type 2 2 2			3 3 3	_

.442-in.

.303-in.

R 8872

1	
U.	
Diam.	Туре
	Diam.

.95-in.

.95-in.

1.25-in.

1.25-in.

250-in

1-in

.442-in

84 R 8879...

84 R 8874

















.95-in.

...59c

1.09-in.

1.16-in.





.177-in.

.264-in. .354-in. .442-in.



DEPTH WASHERS

Have 1/2-inch bore, for 1/2-inch shaper cutters at right. Assorted diameters to regulate depth of cut.

84 R 685-Set of 6 . 55c

1/2-INCH BORE SHAPER CUTTERS OF CHROME VANADIUM TOOL STEEL (NOT ORDINARY CASE HARDENED)

Article No.	Туре	Width	Diam.	Price	Article No.	Туре	Width	Diam.	Price	Article No.	Туре	Width	Diam.	Price
84 R 677	12	1-in.	13/4-in.	95c	84 R 680	15	1-in.	13/4-in.	95c	84 R 672	18	1.1-	11/1	
84 R 675	13	1-in.	13/4-in.	95c	84 R 678	16	1-in.	13/4-in.	95c	84 R 674	2017	1-in.	13/4-in.	95c
84 R 673	14	1-in.	13/4-in.	95c	84 R 676	17	1-in.	13/4-in.	95c	84 H 6/4	19	1-in.	13/4-in.	95c

JOBS YOU CAN DO WITH A JOINTER-PLANER:-







JOINTING

ABBETING

SURFACING

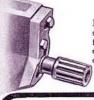
Use for smoothing the surface of rough lumber...for planing joints, or rabbeting (cutting "steps" in the edges of stock).

New heavy-duty precision-built Jointer-Planer, with famous New Departure Ball Bearings.

JOINTERS



Solid steel cutter head has 3 full length cutting blades with chip breakers.



Double tilting, self-aligning cast fence tilts to 45 degrees in either direction.

FEATURE CHECK LIST

Width of Cut
Depth of Cut (Max.)
Depth of Rabbet
BearingsNew Departure Ball
Length, Rear Table121/2"
Length, Front Table
Depth AdjustmentBall Crank
Cutter Head
Fence191/4" x 21/4"
Fence AdjustmentHand Knob-45° Tilt
Shaft Diameter5%*
GuardApproved Safety Type
Speed Recommended
Motor Required 1/3 H.P1750 R.P.M.
Jointer Pulley Supplied 2°
Motor Pulley Recommended 5"
Mounting Recommended . Stand No. 84-8791

NEW 5-INCH BALL BEARING JOINTER 26 53 DOING \$4 MO

A new jointer designed for the home workshop, craftsman, or small manufacturer who wants a precision-built tool capable of doing heavy-duty jobs. Cuts stock 5 inches wide, and can be adjusted to cut to a depth of % inch. The front table is raised and lowered by means of ball crank handle. The front table is fitted with a rabbeting arm and the rear table with a rabbeting ledge. Cast fence for guiding work has a 45° protractor

scale and can be tilted in either direction. Three 5-in. high speed steel blades have approved safety chip breakers... prevent "kick-backs." Cutter head runs up to 5000 R.P.M., makes 15,000 cuts per minute. Cutter head balanced after blades are installed for smooth operation.

Special. 4½-INCH JOINTER-PLANER Machined tables 11%-in. each . . . front table has rabbeting arm—rear table has rabbeting ledge. Cutter head is mounted on ½-in. steel shaft and balanced after blades are installed. Safety type chip breakers prevent "kick-backs." Double

• Cuts 41/2-inch width.

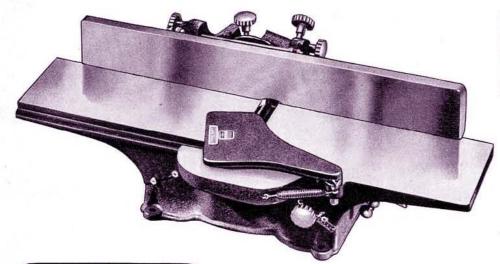
• Cuts to 5/16-in. depth.

• Fence tilts to 45°.

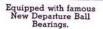
rabbeting ledge. Cutter head is mounted on ½-in. steel shaft and balanced after blades are installed. Safety type chip breakers prevent "kick-backs." Double tilting, self-aligning cast fence has protractor scale. Operate at 4000 to 5000 R.P.M. Self-lubricating bronze bearings.

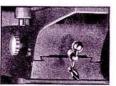
84 R 625-Jointer-Planer with 13/4" pulley. . . 14.95

with new Ward features, at low Ward prices!









Tables mounted on dovetailed ways with machined adjustable gibs.

- Fence tilts to 45° both ways.
- Capacity is full 6 inches wide and up to 5/8-inch deep. (max.)
- One piece <u>balanced</u> cutter head.

FEATURE CHECK LIST

Width of Cut
Depth of Cut (maximum)
Depth of Rabbet
Length, front Table
Length, rear Table
Table Length Over-all341/2" at zer
Depth AdjustmentBall Cran
Cutter Head
Length, fence30"x4
Fence AdjustmentHand Knobs-45° Ti
Ground Steel Shaft. Diameter
GuardApproved Safety Typ
Speed Recommended4600 R.P.N
Motor Required 1/2 H.P.—1750 R.P.N
Machine Pulley Supplied
Motor Pulley Recommended
Mounting Recommended . Stand No. 84-879

BIG 6-INCH HEAVY DUTY JOINTER

A production jointer for cabinet makers, pattern shops, building contractors, schools and factories. Tables adjustable for rabbeting. Front table supported on machine-fitted steel post—adjustable for depth with acme threaded screw and ball crank mechanism. Tables machine-ground in pairs for perfect alignment. Bearing housings are integral part of frame (not separate die castings). Extra large steel fence, 30-in. long by 4-in.

high supported on rear table mounting ... work can't wedge between fence and rear table. I-piece alloy steel cutter head has three 6-in. high speed steel cutting blades with safety chip breakers ... prevents any "kick-backs." Heavy cast iron guard meets all safety codes. 2-inch V-pulley included.

84 R 618—Jointe	r on	ly			42.95
84 R 640-With	No.	9842	1/2-H.P.	Motor,	5-in.
V-pulley and 44-	in. V	7-belt			58.50



KNIVES FOR PLANER-JOINTERS

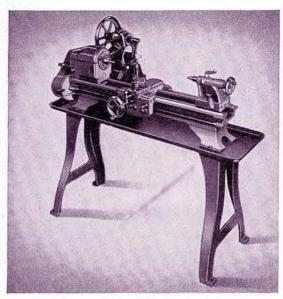


COMBINATION STAND FOR JOINTER AND BENCH SAW

1075 \$2 DOWN \$2 MONTHLY

Here's an ideal way to set up your jointer and bench saw . . . it's portable, can be moved from job to job. Will perform the majority of woodworking operations on construction jobs. Includes extra cast base for No. 690 or No. 692 Saws.

WARDS NEW BALL BEARING . . . METAL-TURNING



Bench legs and Motor Bracket for Lathes. 84 R 772—Chip Pan for Lathes.... 8.25



New Departure Ball Bearing headstock, found only in higher priced lathes.



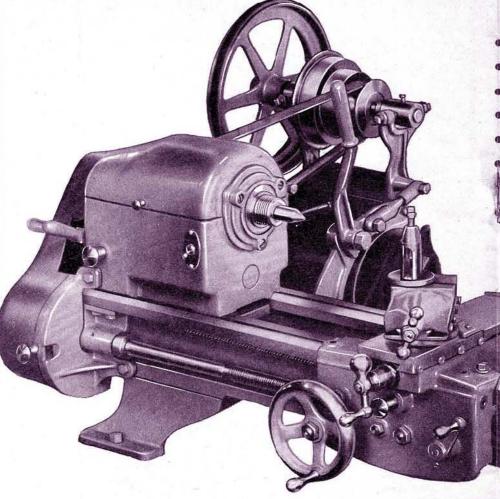
Equipped with flat cone Positive locking-back gear mechanism-rack and pinion type.



Precision machined V and

flat ways . . . milled, planed

pulleys. Convenient when making belt replacements.



STANDARD MODEL

PLAIN BEARING

147 MODEL

A TOOL SHOP LATHE FOR MASTE

• The Only Metal Lathe Selling for Under \$475 Equipped with New Departure Ball Bearing Headstock Spindle!

Your money back (including transportation costs) if this isn't the finest industrial-type metal lathe you've ever seen for less than \$200! You be the judge! Look at the table at the left-compare these specifications with the finest lathes you know of!

BED: Milled, planed and hand scraped—homogeneous, annealed and heat-treated, for removal of internal stresses.

GEARS: Machine cut (not die cast) extra wide-back gears and reverse gears 5% inches; change gears 7/16 inches. Adequate gears for thread cutting. Back gears enclosed in head-prevent clogging. Conventional quick-change reversing gear.

FEATURE CHECK LIST

Swing over bed
Between Centers24"
Bed Length42"
Overall Length
Spindle BearingsNew Departure Ball
Power Cross Feed Equipped
Compound Rest Travel
Cross Slide Travel
Main Drive3-Step Cone Pulley
Speeds (with back gears)12 (41-1270)
Lead Screw34-8 Acme Threaded
Spindle - Nose
TaperNo. 3 Morse with sleeve to No. 2
Hole25/32"
Tailstock Taper
Tailstock Ram Travel
Tailstock set-over
Thread Range4-216 R.H. or L.H.

LATHE

- Extra-Wide, Precision-Machined V and Flat Ways 6% in.
- Carriage has 9 in. bearing surface on ways
- Power Cross Feed and Longitudinal Feed
- No Die Castings! All Parts Precision Machined!
- Drives from line shaft or counter-shaft . . . cone pulley
- 2-Step V counter shaft pulley with back gears gives 12 spindle speeds from 41 to 1270 R.P.M.

Thread cutting dial included



HEADSTOCK: Tempered alloy steel spindle ... fully ground.

TAILSTOCK: 11/16 inches offset for taper turning . . . selfejecting type. 1/16 inch calibrations on spindle.

CARRIAGE: Equipped with compound rest and adjustable gib. Compound rest swivels 180°—locks at any angle. Compound rest and cross-feed screws have large-diameter, adjustable micrometer collar, graduated in thousandths. We recommend a 1/3 H.P. Capacitor Motor, 1750 R.P.M.

84 R 700—De Luxe Model......147.50

84 R 701-Standard Model. Same as above, but with plain bearings







DRAW-IN COLLET CHUCK

(1) Hollow draw-in bar extends through headstock. Threaded at spindle to hold collet.

84 R 791-Less Collets. 18.50

SPLIT HOLDING COLLETS

(2) For use with 84 R 791 above. Sizes: 1/6, 3/2, 1/6, 5/2, 3/6, 1/2, 1/4, 5/2, 5/6, 11/2, 3/6, 15/2, 1/2-inch.

84 R 792-Each......3.79

TOOL HOLDER

(3) Reversible for R.H. or L.H. With wrench, boring bar. 84 R 832 . 2.85

SPINDLE CAP (4) To protect lathe spindle threads while

using draw-in collet. 84 R 793..2.20

JACOBS CHUCK

(5) Capacity 0 to 1/2-in. Use on head ½-in. Use on head or tailstock for holding drills. Latest design pre-cision machined, perfectly bal-aneed. Arbor in-cluded adapts chuck to fit No. 2 Morse Taper. 84 R 787...7.50



5-INCH 3-JAW CHUCK

(6) Self-centering. For centering round or hexagonal work. Adjust-able. Fitsany 1 ½—8 thread spin-dle. Includes 2 sets of jaws.

84 R 788.....



6-INCH 4-JAW CHUCK

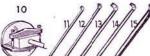
(7) Holds work of all shapes in eccentric or concentric position. Fits any 1½—8 thread spindle. Heat treated and tempered jaws.



FACE PLATES

(8) For any lathe with 1½—8 thread spindle, as on the metal cutting lathe shown at the left. Fully machined, perfectly balanced. Has holes for metal operations and slot for lathe dog. Strong cast iron construction for heavy work. construction for heavy work. Machined face.

84 R 773-6-inch size...2.10 84 R 786-8-inch size.. 3.65



LATHE DOGS

(9) 84 R 8811.

Size	Each
1/2	57c
1 1 4	79c
11/2	89c

Clamp-LatheDog (10) For holding any work. 11/4-in. size. 84 R 835.,2.35

BORING BARS

For boring work of small internal diameters, turn-ing and threading. 84 R 831.

No.	Size	Each
11	1/8 x 4	32c 37c
13	1/4 x 5	49c
14	5/16 X 6	59c



STEEL TOOL HOLDERS

(16) 84 R 822-Straight .1.15 84 R 820-Right Hand . 1.15 84 R 821-Left Hand . . 1.15

(19) 84 R 825—Knurling tool Med. Diamond Roller...2.98

84 R 826—Diamond Knurling Roller for No. 825. Med., 95c



STEEL BITS

High speed 1/4 x 1/4 for holders at left. For both right and left handthreading facing and turn-ing. Highly ing. Hi tempered.

(20) **84 R 827**— Set of 6 . . . **1.35**

84 R 828-Set 6 blank bits .. 85c



FOLLOWER REST

(21) For small rods. Mounts on back of carriage. 84 R 795....3.95

STEADY REST

(22) Clamps to bed ways. For fine work. Cast jaws, 3-in. capacity

84 R 796 5.95



NO. 2 MORSE TAPER CENTERS

(23) Cup Centers. Tailstock centers for wood turning. Hardened steel. Removable points. (24) Screw Centers. Accurate. Removable screw. 84 R 8818—Number 2 Shank......95c (25) Spur Centers. Hardened steel. 84 R 8814-Number 2 Shank.................65c (26) Lathe Center for Jacobs Chuck, shown on page 31. 84 R 8822—Number 2 Shank......75c

(27) Chuck Center with Chuck. Accurately ground. Complete with 84 R 8890 ½-in. chuck on page 31.

(28) 60 Degree Center. Hardened steel. 84 R 8812—Number 2 Shank.................65c

60° COUNTER. SINK DRILLS

(29) Cuts accurate countersink in work to be mounted between centers. Gives proper bearing for center. High grade Carbon tool steel.

84 R 834.

Size	Price
In.	Each
1/16	32c
3/12	37c
1/8	43c



COMPARE LATHES SOLD UP TO \$40!

Built for precision woodworking and pattern-making. It's heavier, stronger and has a greater capacity than production lathes sold up to \$40! Look at the specifications! Exclusive V and Flat ways prevent any play at right angles to the bed. Spindle ground to accuracy of 1/5000 of an inch—projects at left for outboard turning. Spindle index locking device has one row of 30 and one row of 8 positions. 4-speed pulley drives from below or behind. Safety shielded headstock. Self-ejecting tailstock guill. Use 1/2-H.P. motor.

84 R9989-4-Step Motor Pulley. ½, % or ¾-in. bore.........1.10

\$4 DOWN \$5 MONTHLY

*New Departure Grease-Sealed Ball Bearings.

*Cam action tailstock quill.

FEATURE CHECK LIST

Swing over Bed14"
Distance between Centers38"
WaysV and Flat Machined
DrivesBelow or Behind
Face Plate included
Spindle BearingsNew Departure Ball
Headstock Spindle
Headstock and Tailstock Taper
Tool Rest12"
Speed Range740 to 4000 R.P.M.
Motor Recommended 1/2 H.P.—1750 R.P.M.
Machine Pulley Supplied 4 step 41/2"
Motor Pulley Recommended
Recommended Mountings

.....Stand No. 84-8793 22 23 24 25

New Master Professional Chisels

	No.	Size	Price		No.	Size	Price
(2) (3) (4) (5)	84 R 836 84 R 837 84 R 838 84 R 840	5/8" 1/4" 5/8"	\$1.45 1.55 1.65 1.85	(6) (7) (8) (9)	84 R 841 84 R 844 84 R 847 84 R 848	1/2" 1/2" 1/2" 1/2"	\$1.25 1.25 1.25

(1) Set of 8 chisels; one each of the above. Forged alloy tool steel, hardened and tempered. Stay sharp longer ordinary steel chisels. Maple handles 9 in, long. 84 R 862—Complete set......9.95

Master Quality Chisels

No.	Size	Price		No.	Size	Price
(11) 84 R 722 (12) 84 R 729 (13) 84 R 732 (14) 84 R 721	5/8" 1/4" 1/2" 3/4"	59c 59c 69c 89c	(15) (16) (17) (18)	84 R 730 84 R 726 84 R 733 84 R 720	/2" /2" /4" /2"	59c 59c 59c

(10) Set of 5 chisels. 11, 13, 14, 17, 18. Crucible tool steel hardened and tempered. Polished blades with 8-inch hardwood handles. Packed in attractive carton. 84 R 734—Complete set......

Lakeside Tempered Vanadium Steel

	No.	Size	Tool	Price
(21)	84 R 8916	5/8"	Parting Tool	49c
(72)	84 R 8919	1/2"	Gouge	55c
(23)	84 R 8920	3/4"	Gouge	79c
(24)	84 R 8917	1/4"	Skew	49c
(25)	84 R 8918	1/4"	Skew	55c

(20) Set of 4 chisels. 21, 22, 24, 25. Packed in canvas roll. This set of chisels is made of carefully tempered Vanadium steel. Hardwood handles 8 inches long

MITER GAUGE

(1) Slides in table slot of lathe sanding attachment. Gauge has precision calibrations which enables you to do sanding accurately. Knurled nut holds gauge at any angle.

20, 84 R 8825 1.10

COMPOUND REST

(2) Swivel basegraduated to 180°. Has both longitudinal and transverse feed handles calibrated in thousandths of an inch. Longitudinal feed 61/2 in.; transverse feed 7 in.

84R8800-For 619 Lathe . 15.75 84R8801-For 889 Lathe . 13.95

HIGH SPEED BITS

(3) Set includes round nose turning tool; right and left hand turning tool; right and left hand facing tool; threading tool. Fit tool holder of compound rests at left. Size: 36 by 11/2 in. 84 R 8809-Set of 6. .1.10

CAST IRON TOOL RESTS

Increase working surface for chisels-84 R 8840—Has 1-in. diameter post. 84 R 8841—Has 5/8-in. diam. post. (4) 12-in. size......89c

TOOL REST HOLDERS

Rugged cast iron-carefully machined fit lathe bed. Attachments for fastening to lathe bed included.

(6) 84 R 8836-Tool rest holder. 5%in. hole. Fits No. 889 Lathe 69c (7) 84 R 8835-Tool rest holder complete. Hole for tool rest post 1-in. diameter. Fits No. 619 Lathe...1.45



BRONZE-BEARING MACHINED LATHE

A real heavy-duty lathe at the usual price of bargain lathes! Heavy cast iron bed has Wards exclusive V and Flat ways to keep the head and tailstock in perfect alignment at all times. Modern design safety shielded headstock has hollow spindle for cutting off rods, etc. 4-speed pulley drives from below or behind. Can be used for light metal cutting with attachments below. HEAD AND TAILSTOCKS MACHINED IN PAIRS! That's why they line up so perfectly! Self-lubricating bronze bearings with ball-bearing end thrust. Use 1/3-H.P. motor.

\$2 DOWN \$2 MONTHLY

Include a set of woodworking chisels with latheat no increase in monthly payments.

FEATURE CHECK LIST

Swing over Bed11"
Distance between Centers32"
Distance between Centers with Exten 50"
WaysV and Flat Machined
DriveFrom Below or Behind
BearingsBronze
Headstock Spindle34" diam. Hole 3/8"
Headstock and Tailstock Taper No. 1 Morse Taper
Tool Rest
Speed Range
Motor Recommended 1/3 H.P1750 R.P.M.
Lathe Pulley Supplied4" 4-Step Pulley
Motor Pulley Recommended
Mounting Recommended . Stand No. 84-8792

Repair parts for POWR-KRAFT tools are always avail-able at Wards.















4-JAW CHUCKS FOR LIGHT DUTY

84 R 8907-Fits 84 R 619 Lathe or any lathe with 11/8" spindle 7 threads per in......5.75

84 R 8803-Fits 84 R 889 Lathe or any lathe with 3/4" spindle 16 threads

DYNAMICALLY BALANCED FACE PLATES

84 R 8833—31/2" diam. For 1/2" unthreaded spindle as on No. 636 and No. 902 Lathes....85c 84 R 8831-31/2" diam. 3/4" bore, 16-thread . . . 1.10

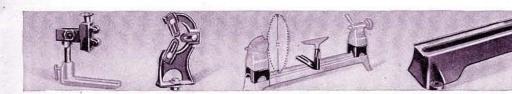
(1) Cup Centers. Tailstock centers for wood turning. 84 R 8816-No. 2 Shank, 65c 84 R8817 No.1 Shank. 59c
(2) Screw Centers. Removable screw. For making knobs. 84 R8818-No. 2 Shank. 95c 84 R 8819 - No. 1 Shank. 59c (3) Spur Centers. Most com-

MORSE TAPER CENTERS FOR LATHE SPINDLES monlyusedheadstockcenter.

84 R 8814-No. 2 Shank. 65c 84 R 8815-No. 1 Shank. 59c (4) Jacobs Chuck Lathe Center. Hardened steel. 84 R 8822-No. 2 Shank. 75c

(5) Chuck Centers with Chuck. Accurately ground for perfect fit. Complete

with 1/2-in. Chuck 84 R 8890. No. 1 Shank 1.19 (6) 60° Centers, Hardened 84 R 8812-No. 2 Shank . 65c 84 R 8813-No.1 Shank. 59c



RESTS FOR TURNING LONG PIECES

Back Rest for tool rest holders, it mounts behind and insures accurate work when turning long pieces. Rollers adjust as work

84 R 8846-5/8" hole . 3.89 84 R 8847-1" hole, 3.89 Steady Rest for work up to 21/2-in. in diameter. to 2½-in. in diameter. Relieves pressure on long, thin spindles. Increases accuracy. Also used for

84 R 8843—For 84 R 889

Pillar Blocks for increasing capacity of lathe No. 84 R 619 to 22" swing. For turning large pieces, such as lamp bases; and for metal spirning. Fits V and flat ways. High tool rest holder included.

84 R 657—Set 9.65

BED EXTENSION

For Gap-Bed Lathe 84 R 636. Increases distance between centers of Lathe to 39 ½ in. Tailstock slides freely over milled joint.

For Lathe No. 84 R 889. Increases distance between centers to 50 in. Has foot like lathe, and same V and flat ways.

SANDING ATTACHMENT FOR LATHE

Large, 10-in. disc fits spindle of lathe. Table fits V and flat ways. Heavy cast table 10 by 16 in. Tilts to 45° on double trunnions. **84 R 8903**—For 84 R 889 Lathe....**8.95 84 R 8906**—For 84 R 619 Lathe...**8.95**



COMPARE \$10 LATHES!

Includes Exclusive Built-in Grinder! 6⁹⁵

Sanding Attachment. 6-in. sanding disc. Steel table clamps to lathe bed. With miter gauge. Illustrated above.

84 R 637—Combination Lathe and Attachments. Includes No. 636 Lathe, No. 8823 Sanding and No. 8849 Drilling Attachments......9.65

FEATURE CHECK LIST

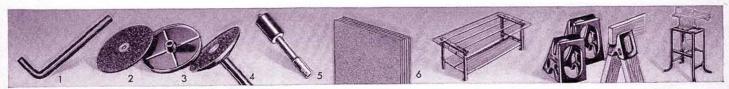
	636	902
Swing over bed Distance between	8"	9"
centers Distance with ex-	27"	31"
tensions	38"	_
Spindle Bearings.	Bronze	Bronze
Spindle Diameter.	1/5"	5/8"
Grinding Wheel	4"x1/2"x 1/2"	4"x1/2"x1/2"
Drive	Below or	Below or
tanachine acompañach an	Behind	Behind
Length of Bed	371/2"	433/4"
Tool Rest	6"	9"
Ways	Ground	Ground
Control of Control of Control	Flat	Flat
Headstock	Dowelled	Triple
	and bolted	bolted
	to base	The second
Speed Range	765 to	765 to
at an	4000	4000
20 00 300	R.P.M.	R.P.M.
Motor Recom-	Constant I	
mended Machine Pulley	1/4 H.P.	⅓ H.P.
Supplied	4" 4-Step	4" 4-Step
Motor Pulley	No. 9974	No. 9974
Recommended	4" 4-Step	4" 4-Step

WARDS MIRACLE VALUE!

Headstock Triple-Bolted to 43¾-in. Cast Iron Bed

1195 \$2 DOWN \$2 MONTHLY

Here's why this is one of Wards greatest Powr-Kraft values! Machined throughout for accurate work! Self-lubricating bronze bearing in head, with ball thrust bearing to absorb end thrust. New safetyshielded headstock. 4-step pulley.



(4) Flexible Sanding Disc. For finishing curved or flat surfaces. For ½-in. 24-thread flexible shaft. 5%-in. rubber pad takes 6-in. sandpaper discs.

(6) Garnet Paper. For spindle sander above 9x11 sheets. Fine, medium and coarse.

Steel Work Bench Legs. Build your own work bench. Top and cross bars punched for attaching boards; legs punched for bracing. 31 ¼ in. high, 23 in. wide. Heavy 11-ga. angle steel. Welded joints.

84 R 8839-Set of 2 ends.........2.89

Saw Horse Joints. Insert lumber in joints. No beveling or bracing necessary. Grippers prevent sway. Malleable iron.

STEEL STANDS FOR POWER TOOLS

84 R 8909—Rubber feet for all the steel stands. Set of four.....89c

Enjoy a complete workshop! With Wards Time Payment Plan you can problably buy tools and shop equipment together, for the same monthly payment as the tools alone.

THINGS YOU CAN DO WITH A SANDER: -







CURVED

BUTT

Belt sanders are used (within their capacity) for doing the sanding operations shown above. They have two distinct advantages over hand sanding: speed and accuracy.

3-INCH BELT SANDER

3x30-inch Garnet Belt Overall Length $13^{1}/_{2}$ -in. Use with $1/_{4}$ H.P. Motor **5**75

Do those tough, monotonous sanding jobs in double-quick time, with this amazingly low-priced sander. Removable stop guard adjusts to 45° angle. Rubber covered crown pulleys grip belt securely. With 2½-inch pulley.

3-INCH PORTABLE SANDER

For Use with Flexible Shaft. 3x30-inch Belt. Overall Length 17-in. 1175 \$2 DOWN \$2 MONTHLY

Leaves no disc marks. Comes ready for use with No. 882 Flexible Shaft (see p. 25). For heavy-duty work, use the adaptor listed below, with No. 881 shaft. Cast aluminum frame and pistol grip handle. Rubber covered crown pulleys.

6-INCH BELT SANDER

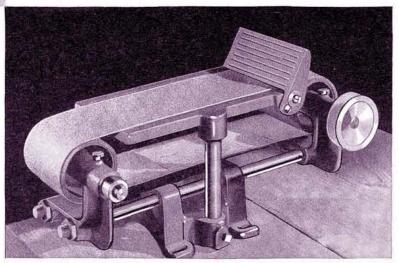
6x44½-in. Garnet Belt Overall Length 22-in. Use with 1/3 H.P. Motor

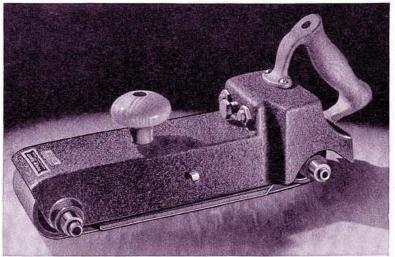
23²⁵
\$3 DOWN \$4 MONTHLY

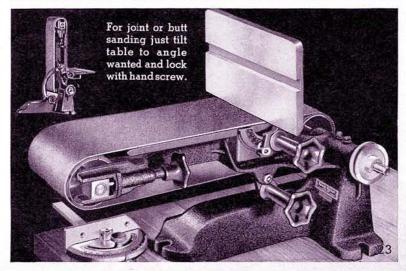
A precision sander for heavy duty professional work. Adapts to horizontal, vertical or any intermediate position. Table tilts 45° one way, 15° opposite way. Bronze bearings. With 2½-inch pulley, belt, and miter gauge.

POWER SANDERS

at Rock Bottom prices!









- JACOBS KEY CHUCKS
- NEW DEPARTURE BALL BEARINGS

• GENERAL ELECTRIC





1/4-in. Utility **Electric Drill**

Universal Motor. Has features found only in drills sold for many dollars more! Drills within 3/4-in. of a corner. 110-120 volt, A.C. or D.C. Double reduction gear. Self-lubricating bronze bearings. 3-jaw chuck holds drills up to ¼-in. "On-Off" switch in handle. 1500 R. P. M. 84 R 1030 8.95



GENERAL PURPOSE DRILL

Compare these features with \$22 drills! General Electric Motor. New Departure grease-sealed ball bearings. Precision Jacobs Key Chuck. Heat-treated Chrome Vanadium gears. Pistol grip handle. Runs at 2000 R.P.M. no load, 1600 with full load. For A.C. or D.C. 110-120 volt current. Underwriters' approved cord, plug.

HEAVY DUTY DRILL

Pistol grip style. Bigger, heavier, far more powerful than drill at left.

Article Number	Chuck Size	R.P.M. No Load	Ship. Wt.	Cash Price
84 R1019	1/4 in.	2000	11 lbs.	\$34.75
84 R1032	5/6 in.	1400	11 lbs.	37.95
84 R1020	3/8 in.	1300	12 lbs.	38.95

1/2-INCH SIZE \$5 A MONTH

Breastplate style. Over twice the weight of drill at left. Wards best!

PRODUCTION DRILL

Article Number	Chuck Size	R.P.M. No Load	Ship. Wt.	Cash Price
84R1021	1/2 in.	550	24 lbs.	\$47.50
84 R1022	3/8 in.	480	25 lbs.	52.95
84 R1023	3/4 in.	425	26 lbs.	57.95

BUY NOW, ON WARDS EASY PAYMENT PLAN

PORTABLE ELECTRIC SAWS



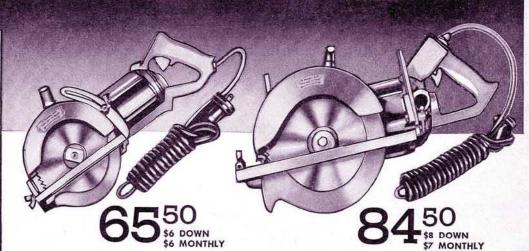
Notching rafters is easy with a portable.



Pays its own way in construction savings.



Makes light work of most difficult cuts.



Here's maximum speed for sawing wood, compositions, soft metals, etc. Plug in wherever there's an electric outlet. Powerful Robbins and Myers Universal 60-cycle, A.C.-D.C. 110-120 volt motors. Crucible steel combination blades. SKF bearings. Two pole instant release switch, 3-wire cord and plug. Detachable rip fence, wrench, grease gun, steel carrying case. Approved guard.

6-Inch Size - Beveling device sets to 45°. Tempered worm gear drive. For light duty work. 7 and 8-Inch Sizes-Beveling device sets to 60°. Heavyduty helical and spiraloid bevel gears. Handy built-in sawdust blowers.

Art. No.	Size	Depth Cut	Speed	H.P.	Net Wt.	Ship. Wt.	Cash
84 R8939	6 In.	0-17/8	3750 R.P.M	1/3	11 1/2 lbs.	20 lbs.	\$65.50
84 R8940	7 in.	0-21/8	3600 R.P.M.	1/2		32 lbs.	84.50
84 R8941	8 in.	0-21/2	3400 R.P.M.	3/4	27 lbs.	42 lbs.	105.00

JOBS YOU CAN DO WITH FLEXIBLE SHAFTS:-







POLISHING

Do polishing, sanding, grinding and drilling by attaching to 1/2-inch motor or line shaft. Flexibility makes it easy to work on either large or small projects.

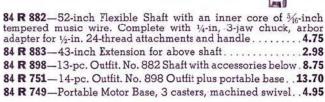
A Workshop in Itself!

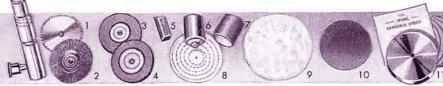
13-PIECE OUTF

Includes Flexible Shaft, handle and all accessories shown in panel below

FLEXIBLE

SHAFTS



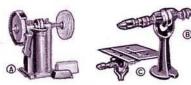


Hole Saw Attachments for Electric Drills

Circular Hole Saw is for use with drills having a 1/2-in. or larger chuck size. Cuts clean holes in wood or metal up to 7/8-in. deep. 84R647-Mandrel, For all size blades1.10 84R648 Blades:

Size	3/4 79c	3/8	1	11/8	11/4	13/8	11/2
Each	79c	79c	79c	79c	79c	79c	79c
84R	706-0	Comp	lete.	Man	drela	andE	lad
Set	\$2.25	\$2.25	\$2.25	\$2.25	\$2.25	\$2.25	\$2.2

84 R 643-Grinding Arbor. For electric drills. Fits any chuck with a 1/4-in.



FOR POLISHING, GRINDING

(A) Complete Outfit, 1/2x4-in. silicate grinding wheel on one end. 4-in. polishing wheel on other. Polishing compound included, 21/4-in. pulley for 1/2-in. V-belt. 91/2-in. high, 84 R 9995, 2.89

(B) Polishing Head. Tapered spindle for odd arbor sizes. Cast-iron base. 3-jaw. 1/4-in. chuck. 11/4-in. V-pulley, 1/2-in. shaft. 84 R 9980. 1.10

(C) Saw Table for above. 8x8-in. stamped steel. Takes a 4-inch saw. 84 R 9981.....65c



SCRATCH BRUSHES

(D) For removing burrs, polishing welds, etc. Steel wire hardened and tem-pered. 84 R 6744. Fine.

Diam.	Bore in.	Price
6	1/2	39c 49c
0.450	710 6	*
8416	143-0	oarse
84R6	143-0	29c
84 PC 6	1/2	

UTILITY KIT

(E) 5-pc. Saw, grinding wheel, scratch wheel, buffer, com-pound. 4-in. diam. 1/2-in_hole. 84 R 9982....1.25

(F) Buffing Wheel. 20 layers bleached muslin. 84 R 6742:

Diam.	For Hole	Each
4	1/2	10c
6	1/2	15c
8	1/2	25c

(1) 84 R 8863—4-in. Saw	(7) 84 R 703—Sanding Sleeve for drum. Fine, Medium, Coarse
(3) 84 R 8516 —4 by ½-in. Grinding Wheel (Fine) 33c	(8) 84 R 6742—6-inch Cloth Wheel. Each
(4) 84 R 8517—4 by 1/2-in. Grinding Wheel (Coarse) . 33c	(10) 84 R 718-6-in. Rubber Pad. Use with disc 25c
(5) 84 R 8864—Polishing Compound. Each 12c (6) 84 R 704—Sanding Drum. 3-in. wide 95c	(11) 84 R 714—6-inch Sanding Disc. Threaded 65c 84 R 719—Package 6 Sanding Sheets, 6-in 25c

\$10 Purchase Starts a Time Payment Account, Only \$2 Down; Balance Monthly

Wards Heavy Duty

FLEXIBLE SHAFT

Made extra strong for heavy-duty polishing, sawing, grinding, sanding.

Heavy 3/4-in. core of specially wound music wire rides in 2 rows of heat-treated, precision-ground ball bearings on each end. Outer casing is tough fabric—steel reinforced on outside. Inner walls are lined with special friction-reducing materials. All engaging parts heat-treated. Do not run faster than 4750 R.P.M. or with larger than 1/3-H.P. motor. 1/2-in. 24-thread spindle fits 1/4 and 1/2-in. chucks and other accessories. Includes Grinding Wheel arbor. Length overall 62½-in. Zerk grease fitting.

84 R 738-611/2-inch Shaft Extension. Made same as above, except with shaft coupling instead of motor coupling . . . 13.75 84 R 604-Tripod Stand. 441/2-in. high. 11/2-in. diameter steel post. Adjustable height. 4-step jack shaft 13.25





PRODUCTION MODEL

Develops maximum power at 10,000 R.P.M. instead of at usual 5000 R.P.M. G-E Universal Motor has a 40-Watt output—about twice that of some others. Grinds, carves, polishes and drills on wood, glass, plastics or metal. Chuck lock on front. Toggle switch. 8 ft. 3-wire safety cord.

Length 6% ins. Collet chucks takes ½ or %-in. diam.bits. Large fan pulls air over motor. 110-Volt, 60-cycle, A.C.-D.C. Motor runs 20,000 R.P.M.

34-PC. DELUXE OUTFIT. Includes above handtool, 6 wood-cutting barrs, 3 metal-cutting burrs, 8 abrasive points, 1 stone, 1 sanding drum, 6 sanding sleeves, 1 felt wheel, 1 bristle brush, 1 rubber polishing wheel, 2 cutting discs, 1 grinding wheel, 1 combination mandrel for grinding wheel and sanding discs (48 asst. discs included) and hinged heavy gauge steel box.

FEATURE CHECK LIST

	613	630
Max. Output	40 Watts	161/2 Watts
Speed	20,000 R.P.M.	18,000 R.P.M.
Motor	General Electric— 110 Volts— 60 Cycle or less AC or DC	General Electric— 110 Volts— 60 Cycle or less AC or DC
Collet Capacity	He" and	1/4" and 1/4" diam.
Bearings	New Depar- ture Ball	Bronze
Brushes	SquareCar- tridge Type	Square Car- tridge Type
Insulation	Tested at 1000 Velts	Tested at 1000 Velte
Fan	Propeller	Propeller
Housing	Metal	Bakelite
Over-all Length	7"	61/4"

STANDARD HAND TOOL

Compare with others' \$18 tools! Drills, grinds, polishes, carves. G-E universal motor develops 16½-Wattoutput—runs smooth and quieton self-lubricating, self-aligning bronze bearings. Built-in toggle switch. Collet chucks take 3½ or ½-in. diam. bits. 110 Vclt, 60 Cycle, D.C.-A.C. Runs up to 18,000 R.P.M. Overall length 6% ins. 6 ft. cord.

25-PC. OUTFIT. Includes above hand tool, plus, 2 wood-cutting burrs, 4 metal-cutting burrs, 8 mounted abrasive points, 1 felt wheel, 3 bristle brushes, 1 rubber polishing wheel, 2 carborundum cutting discs, 1 grinding wheel, 1 combination mandrel for grinding wheel and sanding discs (12 sanding discs included), and steel box.







ROUGHING BURRS FOR WOOD AND PLASTICS

These burrs are made of the same high-grade Tungsten Steel as our metal cutting burrs. Caution: These cutters should not be used for cutting steel. 1/8-in. shafts.

No.	Diam.	Length	Price	No.	Diam.	Length	Price
8827-1	5/6"	5/6"	65c	8827-6	1/4"	5/6"	65c
8827-2	5/6"	3/6"	65c	8827-7	1/4"	1/2"	65c
8827-3	1/4"	15/2"	65c	8827-8	3/8"	5/82"	65c
8827-4	13/4"	13/4"	65c	8827-9	1/4"	5/6"	65c
8827-5	3/6"	1/4"	65c	8827-10	1/4"	3/2"	65c

FINISHING BURRS

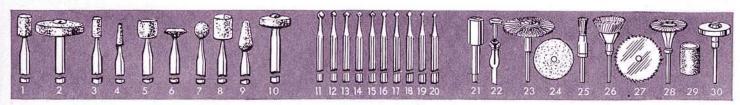
They are made of the same high-grade Tungsten Steel as our larger burrs. For all types of finishing cuts in woods, plastics and soft metals. 1/8-inch shafts.

No.	Diam.	Length	Price	No.	Diam.	Length	Price
8826-11	1/6"	1/2"	37c	8826-14	1/8"	1/8"	37c
8826-12	1/8"	1/4"	37c	8826-15	1/8"	3/16"	37c
8826-13	1/6"	1/6"	37c	8826-16	1/8"	11/4"	37c

BURRS FOR METAL

They are properly designed from correctly hardened Tungsten Steel. For cutting steel, such as are used in dies, and other metals. ½-inch polished shafts.

No.	Diam.	Length	Price	No.	Diam.	Length	Price
8828-17	5/6"	5/6"	65c	8828-22	5/6"	564"	65c
8828-18	5/6"	15/2"	65c	8828-23	96"	5/2"	65c
8828-19	1564"	1/4"	65c	8828-24	15/4"	3/6"	65c
8828-20	11/2"	3/2"	65c	8828-25	11/2"	364"	65c
8828-21	3/6"	7/6"	65c	8828-26	1564"	1564"	65c



MOUNTED ABRASIVE POINTS

Made of high-quality abrasives. Properly balanced and guaranteed to stay on the shanks. For use on steel dies, moulds and other hard materials. 1/8-inch shanks only.

No.	Diam.	Length	Price	No.	Diam.	Length	Price
8829-1	1/4"	1/4"	29c	8829-6	5/6"	3/2"	35c
8829-2	3/8"	1/8"	29c	8829-7	316"	316°	32c
8829-3	1/8"	1/4"	29c	8829-8	1/2"	1/2"	32c
8829-4	1/8"	1/4"	35c	8829-9	1/2"	3/8"	35c
8829-5	1/4"	1/4"	35c	8829-10	3/8"	1/8"	29c

MODELMAKERS DRILLS

These drills are made of high grade Tungsten Steel. Correctly designed and sharpened for high speed drilling of shallow holes in woods, plastics and soft metals.

No.	Diam.	Price	No.	Diam.	Price
8943-11	.035	23c	8943-16	.055	23c
8943-12	.037	23c	8943-17	.065	23c
8943-13	.040	23c	8943-18	.070	23c
8943-14	.045	23c	8943-19	.080	23c
8943-15	.050	23c	8943-20	.090	23c

HAND TOOL ACCESSORIES

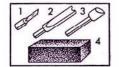
8776 (21)—Sanding Drum, 3/2 x 1/2"
8789 (22) - Mandrel for Sanding Discs Ea. 650
8777 (23) - Extra Heavy Wire Brush, 1-in. Dia Ea. 496
8945 (24)—Sand paper Disc, 5/8"; 8779 (24)—7/8", 100 286
8782 (25) -Brush, 1/2x 1/4"; 8798 (26) -Brush, 1/2", Ea. 100
8946 (27)—Saw Blade, 3/4"; 8787 (27)—13/16" Ea. 696
8799 (28)—Bristle Brush, 1/4"
8786 (29)—Sanding Sleeve for 8776, 1/2 Grit Doz. 386
8778 (30) — Felt Wheel, 5/8"
8788 - Mandrel for Saws, 1 1/4 x 1/8" (not shown) Ea. 376
8953-Rubber Pol. Wheels, 7/8 x 1/8" (not shown) Ea. 100
8954—Carborundum Discs, 1/8x1/4" (not shown) Doz. 286
8955—Grinding Wheel, 1/8 x 1/8" (not shown) Ea. 130
8956—Grinding Wheel Mandrel (not shown) Ea. 136



MODELERS CHISELS

1/4" Skew Chisel 1/2" Skew Chisel 1/2" Gouge Chisel 1/4" Round Nose Chisel Cut-Off Tool Chisel

84 R 642-Set of 5 1.98



No.	Key	Item	Price	No.	Key	Item	Price
8794A	1	Veining Bits-1/6	\$ 89	8944B	2	Fish Tall Bit - 3/6	\$1.35
8794B	1	Veining Bits-%	.89	8796A	3	Router Bit-1/8	1.15
8795	1	Veining Bits-1/8	.89	8796B	3	Router Bit-%	1.15
8944A	2	Fish Tail Bit-1/8		8797A	3	Router Bit-1/4	1.15
	-	70	1.05	8957B	4	Dressing Stone	.23

at Wards Savings

WARDS FINEST VISE

4.45

WOOD FACE VISE

AUTOMATIC LOCKING VISE BARGAIN VISE

84 R 6898-Make your own bench vise. Thread of screw, machine cut from cold rolled steel bar. Length abt. 16 in. Hardwood handle.

BENCH

SCREWS

Diam.	Wt.	Price	
In.	Lbs.	Each	
1	6	89c	

CLAMP FIXTURES

1.15

84 R 6907 - For 3/4-in. threaded pipe. End fixture adjusted by steel screw. Easily ex-tends to any on pipe. Pipe not included. Semisteel. Faces 134 by 17/8. Rust-proof enamel finish.

BAR CLAMPS

84 R 6910 - Tshape notched steel bar 1½ by ½ by ¾ in. Stif-fer than flat bar. Malleable iron sliding fixtures with 1% by 1%in. surfaces. 5/8-in. steel screw.

Length	3 ft.	4 ft.	
Each	\$2.19	\$2.55	

NICKEL PLATED CLAMPS

84 R 6904 - Guaranteed unbreakable. Malleable iron. Rust-proof. Extra deep throat yet strength isn't sacrificed. Cold rolled screw. Sliding bar handle gives greater leverage

Opens In.	Depth In.	Price Each
1	11/8	10c
2	11/16	15c
3	2	25c
4	3	49c
6	31/2	75c

84 R 6834 - For the master carpenter. 10-in. castiron front and back jaws have ground faces. Opens 10-in. Adjustable locking bench stop. Cold rolled steel screw and guides.

2.95 84 R 6830-Cast-

iron front jaw-10-in. wide, with hardwood face. Bench serves as other face. Steel screw and guides, opens 10 inches. Adjustable stop. Hardwood handle, screws included.

1.98

84R6833—Clamps to anything from 3/4 to 2 in. thick. Instant locking device. Strong steel rods. Malle-able iron 11/2 by 5½-in. jaws grip tight. Opens to 3¾ in. Black Japanned finish.

1.35

84 R 6832-Malleable iron jaws 6¾ in. wide—2½ in. deep. Opens 4½ in. Easy operating acme thread screw; two 1/2-in. diam. steel guide rods. Steel slide handle. Green enamel.

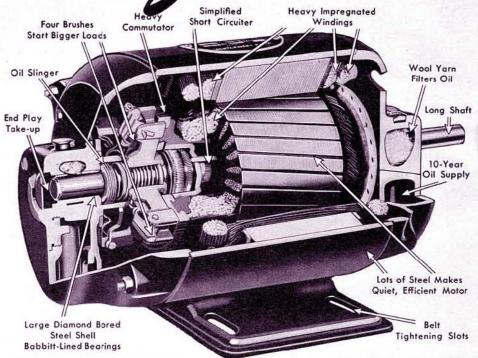
Wards are s

COMPARE OPERATING RECORDS **BEFORE YOU BUY YOUR MOTOR**

Buy on the basis of PERFORM-ANCE! The table below shows FACTS. We urge you to compare them with the records of any similar models, regardless of make or price.

TESTS PROVE SUPERIORITY OF WARDS MOTORS

Article Number Type of Mator	84 R 9861 1/3-H.P. Split Phase	1/2-H.P.	1-H.P.
Rated Power	.333 H.P.	.500 H.P.	1.00 H.P.
Maximum H.P. Motor Will Deliver While Running	.850 H.P.	1.30 H.P.	2.95 H.P.
Increase in Temperature After Delivering Rated Power 4 Hours	36° C.	35° C.	18° C.
Watts Used While Deliver- ing Rated Power	390 Watts	\$40 Watts	1050 Watts
Cost to run per hour, at 4c per KWH	Less than	Less than 21/40	41/4c



SPLIT-PHASE MOTORS

For EASY-Starting Jobs Guaranteed For 2 Years

Single Shaft 1/4 Horsepower I yr. GUARANTEE

Special SINGLE SHAFT SLEEVE BEARING MOTOR. Guaranteed for 1 year. For washing machines, workshop tools, or other easy-starting machines. Not Thermotron equipped. Running speed. 1750 R.P.M. For 110-120 volt, 60 cycle, A.C. 84 R 9793-1/4 H.P. with 71/2-ft. rubber cord and

Use with any machine that starts easily, even though load is heavy after starting. For small woodworking lathes, saws and washing machines. Big overload capacity for short periods—1/4 H.P. develops over 1/2 H.P. before stalling; 1/3 H.P. develops over 3/4 H.P. before stalling. Should motor overheat, Thermotron shuts it off. Shaft 1/2-in. diam. Handy On-Off switch. 71/2-ft. cord and plug. 1750 R.P.M. For 110-120 volt, 60 cycle, A.C. woodworking lathes, saws and washing machines.

GUARANTEED 2 YEARS

DOUBLE SHAFT SLEEVE BEARING MOTORS. Built for hard daily service. Use horizontal only.

84 R 9854—¼ H.P. Length overall 12-in. . . . 6.95 84 R 9855—⅓ H.P. Length overall 13¼-in . 8.45 DOUBLE SHAFT BALL BEARING MO-TORS. Use in any position.

84 R 9858—¼ H.P. Length overall 12-in. . . 8.75 84 R 9861—½ H.P. Length overall 13¼-in. . 9.95



for MOTORS...

All Ward Motors are GUARANTEED

Every Ward Motor is guaranteed against defects in material and workmanship. If any motor should fail to give the service specified, Wards will repair or replace on a service basis—charging only for the time motor has performed satisfactorily. Repair parts are always available for all Wards motors—26 service stations throughout the United States assure quick repairs at any time.

what Type ... what Size

do You need?

SPLIT-PHASE MOTORS

Split-phase motors are intended for easy starting loads such as washing machines, power tools, etc. Do not use on water pumps or air-compressors.

CAPACITOR MOTORS

Capacitor motors will handle somewhat heavier starting loads than split-phase motors and use only about ½ the starting current required by split-phase motors.

REPULSION INDUCTION

Repulsion-Induction motors should be used on hard starting jobs such as pumps, compressors, etc. Develop 4 to 5 times rated horsepower for short periods, while starting.



CAPACITOR MOTORS

For MEDIUM-Starting Jobs

Guaranteed For 3 Years

Wards 1/3-H.P. Standard Capacitor 1195 52 DOWN 52 MONTHLY

Finest for workshop use. Built-in condenser reduces starting current—makes motor start easier and come to top-speed faster. Should motor overheat, safety Thermotron automatically shuts it off. Reset by pushing a single button. Unbreakable slotted steel base. ½-inch shaft projects 2 inches at each end. For 110-120 volt, 60-cycle A.C. All 1750 R.P.M. except 84 R 9844. 7½-ft. rubber covered cord, rubber plug.

STANDARD CAPACITOR MOTORS. Similar to DeLuxe split-phase type described at left, but capacitor type—start heavier loads on much lower amperage.

84 R 9846—1/3-H.P. Overall length 131/4 in.. 11.95 DELUXE CAPACITOR MOTORS. No finer workshop motors made! Has greater overload capacity and starting ability than capacitor motor above. Reversing switch.

84 R 9843—1/3-H.P. Overall length 13¾ in. .12.95 84 R 9842—1/2-H.P. Overall length 14½ in. .14.95 84 R 9844—1/2-H.P. Overall length 13¾ inches. 3450 R.P.M. Use only where machine must be run over 5000 R.P.M. routers, shapers, etc. . . . 16.75



Repulsion Induction Motors

30 1-2-3

3 Year Guarantee

FOR HARD-STARTING MACHINERY

1145
1/4-H.P.
Wards Standard

14.75 Wards Delux

\$2 DOWN, \$2 MONTHLY \$2 DOW

\$2 DOWN, \$2 MONTHLY

DeLuxe type Thermotron protected against burn-out. Equipped with reversing lever. Modern design frame, fan and air vents for ventilation. Super oil wells (as shown). For water pumps, air compressors, cream separators, and all other hard starting machinery. These motors develop 4 to 5 times rated power for short periods while starting! Single shaft repulsion-induction motors—sleeve bearings. 1750 R.P.M.—110-220 Volt 60-Cycle A.C.

WARDS STANDARD

Article	H.P.	Shaft	Shaft	Cash
Number		Diam.	Length	Price
84 R 9819 84 R 9819 84 R 9819 84 R 9819 84 R 9819	1/4/3/2/4 1	5/8" 5/8" 3/4" 3/4" 3/4"	2" 2" 21/4" 21/4" 21/4"	\$11.45 15.95 19.95 27.50 35.95

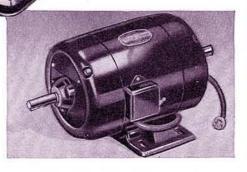
WARDS DELUXE

Article	H.P.	Shaft	Shaft	Cash
Number		Diam.	Length	Price
84 R 9820 84 R 9820 84 R 9820 84 R 9820 84 R 9820	1/4 1/3 1/4	5/8" 5/8" 3/4" 3/4"	2" 2" 21/4" 21/4" 21/4"	\$14.75 18.95 23.45 30.95 39.50



REPULSION INDUCTION MOTORS

Article Number	H.P.	Shaft Diam.	Shaft Projects	Cash Price
84 R 9821	11/2	1 in.	31/8 in.	\$ 47.95
84 R 9821	2	1 in.	31/8 in.	59.90
84 R 9821	3	1 in.	31/8 in.	79.50
84 R 9821	5	1 1/8 in.	33/8 in.	119.50



DOUBLE SHAFT MOTORS

For industrial use. Similar to motors above, but with double shaft and double-grease-sealed ball bearings. 110-220 Volt, 60-Cycle, A.C., 1750 R.P.M. ¼-in. shaft.

84 R 9813-1/2-H.P. Motor	\$4 Monthly 24.95
84 R 9815-3/4-H.P. Motor	\$4 Monthly 29.95
84 R 9816-1-H.P. Motor	\$5 Monthly 39.95



GEAR REDUCTION MOTORS

Use where extra-slow speed is needed—for fruit graders, corn shellers, conveyor belts, etc. Capacitor type. While one shaft runs at 1750 R.P.M. slow-speed shaft runs at 350 R.P.M. 110-120 Volt, 60-Cycle, A.C. Base movable for wall or ceiling mounting.

84 R 9874- 1/2-H.P. Motor. \$4 Monthly 25.95



ADJUSTABLE MOTOR BASE

Complete Set 55c

Use one motor with a number of machines. Buy a complete set for the first machine, and extra rails only for each extra machine. The stamped steel rail forms a sturdy, portable base for your motor. You will find many uses for these handy rails. Include them on your Time Payment Order—they will add little or nothing to your monthly payments.

AC or DC 2.95

On-Off Switch. For fractional horsepower motors, Shank fits ½-in, hole. Rust-resisting nickel plated finish, 84 R 9946—Wt. 2 oz. . . . 25c

FIBER PULLEYS

Slip-proof, heavy-duty, grip the belt better than any other kind—last longer under hard service. Metal core. Fit round or keyed shaft. Order pulley slightly wider than your belt. 84 R 9966.

Size, In.		For Shatt	Price	
Diam.	Face	Diam., In.	Price	
1 1/2 1 1/2 2 2 1/2 2 1/2 3 3 4	2 1/2 1	1/2 or 5/8 3/4 5/2 5/6 or 3/4 1/2 or 5/8 5/4 or 1 1/2 or 5/4 3/4 1/2 or 1 1/2 or 1 1/2 or 1	\$1.10 1.15 1.25 1.47 1.69 1.69 2.25 2.39	

USEFUL INFORMATION ABOUT MOTORS

All motors deliver more power when connected with heavy wire. Do not use ordinary No. 18 extension cord under any circumstances for more than a few feet. To get maximum power from your motor, use wire not lighter than shown in table below.

H.P.	Volts	Dista	nce from	m Motor	to Mete	er, or Ba	ttery
H.P.	VOITS	100 ft.	150 ft.	200 ft.	250 ft.	300 ft.	400 ft
1/4	110	14	14	12	12	12	10
1/3	110	14	12	12	12	10	8
1/2	110	12	12	10	10	10	8
3/4	110	10	10	8	8	8	6
1	110	10	10	8	8	8	6
1/4	32	10	8	6	6	4	4
1/3	32	8	6	6	4	4	2
1/2	32	8	6	4	4	2	2



FLAT-FACE PULLEYS

(1) Die cast-high tensile strength. Face slightly crowned. Set screws. 3 by 3-inch pulleys (with 5/8 and 3/4-in. bore) have keyway also. 84 R 9969.

Size, In.	Bore, In.	Each
11/2 x 13/4	1/2, 5/8	23c
2 x 2	1/2. 5/8 3/4	25c
21/2 x 21/2	1/2 5/8, 3/4	35c
3 x3	1/2.5/8.3/4	55c

PRESSED STEEL V PULLEYS FOR 3/8 OR 1/2 INCH BELTS

(2) Industrial pulleys for heavy production work. Balanced to run true at all speeds. Bores of 5%-in. and over also have keyways with set screws which fit against key. We can supply only diameters and bores listed in table shown here. 84 R 9999.

Outside Diam. In.	State Bore In.	Ship. Wt. Lbs. Oz.	Ea.	Outside Diam, In,	State Bore In.	Sh W Lbs.		Ea.
2	1/2.5/8.3/4	6	35c	6	1/2.5/8.3/4	1	8	85c
21/2	1/2.5/8.1/4	9	39c	8	1/2.5/8.3/4	W.		Sobstile-C
3	1/2.5/8.3/4	11	49c	200	1	2	9	\$1.19
31/2	1/2.5/8.3/4	13	57c	10	1/2.5/8.3/4	-		30,900
4	1/2,5/8.3/4	15	59c		1	3	4	1.49
41/2	1/2.5/8.1/4	1 1	67c	12	1/2.5/8.3/4			
5	1/2.5/8.1/4	1 3	69c		1	4	0	1.95
51/2	1/2.5/8.3/4	1 6	79c	151/2	5/8, 3/4, 1	6	9	2.98







White Metal "V" Pulleys

(3) 2-step. 25%-in. maximum diameter. 1/2 or 5/8-in. bore.

84 R 9972.....39c

(4) 4-step. 1/2, 5/6, 3/4-in. bore. 4in. diam. large pulley by 1/2" steps.

4-step. 1/2, 5/8, 3/4-in. bore. 5-in.

diam. large pulley by 1/2" steps.

WHIT	E	MI	TAL	
"V"	PI	JLI	EYS	

(5) Carefully balanced with accurately built flanges and hub, these pul-leys run true at all speeds. White met-al of high tensile Designed strength. to take either 3/8 or 1/2-in. V-belts. 84 R 9968.

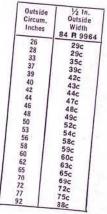
	13/4 in.	1/2.5/8	18c
	2 in.	1/2.5/8	19c
1	2½ in.	1/2, 5/8	22c
	2½ in.	1/2, 5/8, 3/4	23c
	3 in.	1/2, 5/8, 3/4	28c
	4 in.	1/2, 5/8, 3/4	38c
	5 in.	1/2. 5/8. 3/4	45c
	6 in.	1/2. 5/8. 3/4	65c
	6½ in.	1/2. 5/8. 3/4	69c
	8 in.	1/2, 5/8, 3/4	\$1.2
	10 in.	1/2, 5/8, 3/4, 1	1.7
	12 in.	1/2, 5/8, 3/4, 1	2.1



WARDS RUBBER V BELTS

Wards V belts are constructed with a heavy fabric core in live rubber cushions, reinforced by a strong fabcusmons, remorced by a strong lab-ric covering. They are ideal for workshop tools, water systems, or any machine where V belts are necessary. They are flexible, yet long wearing and resist slipping and stretching.

Outside Circumference Inches	3/8 Inch Outside Widtl
24	84 R 9963
31	25c
3 4	29c
43	35c
60	45c
nsure correct si	ze belt, measure





Round Belting. Strong oak-tanned leather. For sewing machines and small power tools. With couplings.

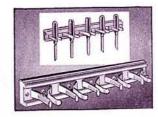
4 R 9972	With couplings.
	74-in



- (6) Heavy Duty Shaft Hanger. Open side for quick change. Height adjusts from 4 to 5-in. ¼-in. bore.
- (7) Quick Change Jack Shaft increases or decreases speeds without changing pulleys. One 2½-in. regular and one 4-in. 4-step pulley. Takes ¾ or ½-in. V-Belt.
- (8) Shaft Hanger. Adjustable up, down or sideways.
- 3/4-in. bore 1.15 84 R 9987-1/2-in. bore.....95c
- (9) Steel Shafting, Precision ground to .001 inches. **84 R 9985**—½x24-in...**25c 84 R 9986**—½x48-in...**95c**
- (10) Steel Line Shaft Collars. Screws set flush. 84 R 9984— 1/2-in. bore.....10c 3/4-in. bore.....15c
- (11) Flexible Couplings. Die cast. Rubber cushions allow flexibility between shafts.
- 84 R 9970-1/2-in. bore. 29c 84 R 9971-3/4-in. bore. 39c (12) Solid Couplings. Extends shaft. 2 inches long.
- 84 R 9983—1/2-in. bore.....19c 3/4-in. bore.....29c
- (14) Motor Arbors with 3-jaw chuck for ½-in. shafts. Hold wheels with ½-in. arbor holes, any thickness up to ½-in. 48 R 9977—¼-inch capacity Chuck 75c 84 R 9976—½-inch capacity Chuck 95c

BUY NOW-PAY LATER

Buy accessories at the same time you buy your Powr Kraft Tools, putting them on the same Time Payment order. Actually, the accessories will add little or nothing to your monthly payments. \$2 a month pays for any order of from \$10 to \$17.50. Follow the advice of successful workshop owners and start with a minimum PLANNED SHOP-with all accessories!



HANDY TOOL CLIPS

Made of special spring steel, for holding lathe chisels and other workshop tools. Each clamp drilled for mounting.

84 R 753-Set of 6..........25c

Convenient Table of Speeds

This handy table shows at a glance the approximate speed of the pulley on any machine with different pulley sizes on the motor shaft. These are correct when belt is at proper tension, and are based on a free motor speed of 1750 R.P.M.

Size, In. Motor Pulley		Size, In. of Pulley on Machines													
	11/4	11/2	13/4	2	21/4	21/2	3	4	5	61/2	8	10	12	15	18
11/4 11/2 13/4 2 21/4	2065 2400 2775	1725 2000 2290	1230 1475 1725 1970 2200	1290 1500 1725	1140 1340 1530	1030 1200 1375	860 1000	750 860	515 600 685	395 460 530	430	215 265 315 345 385	250 285	230	115 140 165 190 215
2½ 3 4 5 6½	4140 5500 6850	3450 4570 5750	2950 3940 4920	2580 3450 4300	2290 3060 3825	2070 2775 3450	1435 1725 2295 2865 3730	1290 1725 2150	1070 1375 1725	800 1060 1320	615 850 1075	515 690 860	430 570 715	460 575	240 285 380 475 620
8 10 12 15 18		9200	7870 9850	8620	7670	6900 8280	8635	4300 5160 6470	3450 4130 5170	2650 3180 3970	2150 2580 3230	1725 2070 2580	1430 1725 2150	915 1140 1380 1725 2070	1430



85-AMP. UTILITY WELDER 110 VOLT, 60-CYCLE A.C.

Output 10 to 90 Amps. 80 Amp. N.E.M.A. Rating. 8 welding heat taps. Maximum power used 1.8 K.W. Maximum Line Draw 30 Amps. Handles up to ½-in. Electrodes. Used by Tinners, Radiator and Fender Shops. Welds tin-plate, castiron and steel to 1/4-in, thick. Case 14 by 14 1/2 by 27 in. high. For welding only, not for cutting. Complete with accessories shown above.

150-AMP. SHOP WELDER 220 VOLT, 60-CYCLE A.C.

\$8 DOWN \$8 A MONTH COMPLETE

Output 10 to 185 Amps. 140 Amp. N.E.M.A. Rating. 16 welding heat taps. Maximum power used 3.2 K.W. Maximum Line Draw 30 Amps. Handles up to 56-in. Electrodes. Used by Plumbers and Garages for welding pipes, blocks, gears, fenders, etc. Welds or cuts tin-plate, cast-iron or steel up to 3/8-in. thick. Case 14 by 16 by 281/2 in. high. Complete with accessories shown above.

225-AMP. INDUS. WELDER 220 VOLT, 60-CYCLE A.C.

COMPLETE

Output 10 to 300 Amps. 200 Amp. N.E.M.A. Rating. 24 welding heat taps. Maximum power used 4.8 K.W. Maximum Line Draw 45 Amps. Handles up to 1/4-in. Electrodes. Used by Black-smiths and Garages for heavy machinery, farm implements, auto body and fender repairing. Welds or cuts tin-plate, cast-iron or steel up to ½-in. thick. Case 18 by 18 by 29 ½ in. high. 84 R 6597—Complete Outfit.....141.50

325-AMP. PROD. WELDER 220 VOLT, 60-CYCLE A.C.

\$25 DOWN \$14 A MONTH COMPLETE

Output 10 to 416 Amps. 295 Amp. N.E.M.A. Rating. 28 welding heat taps. Maximum power used 8.8 K.W. Maximum Line Draw 60 Amps. Handles up to 5/6-in. Electrodes. Used by Heating and Building Contractors for heavy structural welding-in factories for production welding. Welds or cuts tin-plate, cast-iron or steel to %-in. thick. Case 19 by 261/2 by 401/2 in. high.

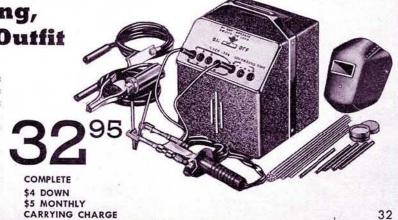
84 R 6598—Complete Outfit..... 234.50

Portable A.C. Arc Welding, **Brazing and Soldering Outfit**

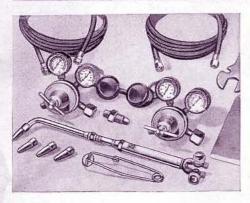
50 Amp., 110 Volt, 60-Cycle A.C.

Welding Heats......4 Taps Maximum Power used......1.7 K.W. Handles up to 3/2-inch Electrodes.

A complete outfit for light welding, brazing, soldering, body filling and lead burning with 4 welding, 3 soldering and 3 twin carbon Arc Torch Taps designed especially for tinners, radiator, battery and fix-it shops. Plug into any wall outlet—welds to 1/8-in. thickness. Case 101/2 by 111/2 by 14 inches high.



WARDS UNDERWRITERS-APPROVED OXY-ACETYLENE OUTFITS



Lakeside Welding Outfit

\$50 Value! Built by America's leading manufacturer of Welding Equipment

Torch and regulators listed by Underwriters' Lab., Inc. Outfit includes: Welding Torch, fixed length. Equal pressure, non-flash. 17-in. length overall. Bronze forged with lightweight, balanced brass handle. Welds up to 1½-in. metal. Cuts steel with 84 R 6535 cutting attachment. Four Welding Tips, drawn copper. Sizes B1-3-5 and 7. Oxygen Regulator, forged brass bonnet with large and 7. Oxygen Regulator, forged brass bonnet with large 3-in. diaphragm. Short inlet connection. 2-in. gauges with 80 and 3000-lb. dials. Double cone inlet screens keep out sediment. Acetylene Regulator, same as oxygen but has 50 and 500-lb. dials. With adaptor for all standard acctylene welding cylinders. Welding Hose, Single braid live rubber—won't crush, red and green 12½-ft. lengths, %-in. inside diam. Accessories: Torch lighter, goggles, wrench and instruction book. 84 R 6520.

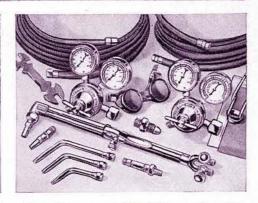


Wards Finest Welding Outfit

Compare \$75 outfits! Nozzle type tips have longer flame range.

COMPLETE \$5 A MONTH

Torch and regulators labeled and listed by Underwriters' Lab. Inc. Outfit includes: Welding Torch, variable length. Equal pressure. Non-flash mixer handles all size tips. Bronze forged black ribbed handle. Length 14 to 19-in. Welds up to 2-in. metal. Cuts steel with 84 R 6535 Cutting Attachment. Five Welding Nozzle Tips: Sizes T1-3-5-7 and 9. Oxygen Regulator, forged polished brass. 2½-in. 100 and 3000-lb. gauges. Shows cu. ft. contents of tank. "On-Off" feature. Double cone inlet screens. Acetylene Regulator, has 50 and 500-lb. gauges. With adaptor for all standard acetylene welding cylinders. Welding Hose, double braid live rubber. Red and green 12½-ft. lengths, ¼-in. inside diam. Accessories: 24 Asst. Welding Rods, 2 cans Flux, goggles, lighter, wrench, instruction book and manual. 84 R 6530.



Cutting and Welding Outfit

Welds up to 2 in. metal. Cuts steel up to 10 in. thick.

COMPLETE \$6 A MONTH

Usual price elsewhere about \$105! Welding torch, cutting attachment and regulators labeled and listed by Underwriters' Laboratories, Inc. A combination cutting and welding outfit—allows you to do both cutting and welding—has double utility. Complete outfit includes: Welding Torch, same type as in Wards finest Welding Outfit at left. 3 Welding Nozzle Tips, solid drawn copper. Sizes T-3-5-7. Cutting Attachment, same as 84 R 6535 described below. 2 Culting Tips, solid drawn copper. Sizes C-1-3. Oxygen Regulator, same as in Wards finest Welding Outfit at left. Acetylene Regulator, same as in Wards finest Welding Outfit at left. Welding Hose, 25-ft. lengths—red and green, 1/4-in. inside diameter.

Accessories: torch lighter, goggles, wrench, instruction book and manual. 84 R 6525.

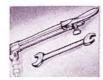
ACCESSORIES FOR OXY-ACETYLENE WELDING EQUIPMENT



BRAZING OUTFIT

No Oxygen 595 Needed!

Connect to any acetylene tank. Outfit includes tips, hose, cleaner, connections and instructions . 84 R 6539



CUTTING ATTACHMENT

Cuts steel up 1225 to 10-in. thick.

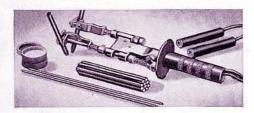
Converts welding torches above into cutting torches. 10½-in. length. Order tips shown at right. 84 R 6535.



CUTTING TIPS

Tip Size (84R6537)	Cap. Cut	Price	
C-1	to 1 -in.	\$2.15	
C-2	to 21/2-in.	2.15	
C-3	to 6 -in.	2.15	
C-4	to 10 -in.	2.15	

ACCESSORIES FOR ELECTRIC ARC-WELDING EQUIPMENT



A.C. Twin-Carbon Arc Torch!

Revolutionary new electric arc torch that opens an entirely new field for Arc Welders! Enables electric arc welders to create a flame for pre-heating, brazing, hard surfacing and soldering. Makes possible welding of aluminum, white metal, copper and other non-ferrous metals num, white metal, copper and other non-ferrous metals formerly possible only with gas torches. Twin-Carbon Torch is 13½-in. long—handles carbons up to ½-in. diameter. With 10-ft. cables and jacks for use with Wards Arc Welders. Use with 84 R 6587 Carbons ar right. Important: Specify Article Number of Model Number of Ward Machine formerly purchased. Lugs furnished for use with other makes of A.C. arc welders by attaching to ground clamp and electrode holder. Specify make of machine. Accessories included: 12 assorted, 6-in. copper-coated, cored Carbon Rods; two ½ by 18-in. Bronze Brazing Rods; 1-oz. Box of Brazing Flux; Instructions.

84 R 6585-Carbon Arc Torch complete with



Miscellaneous Accessories

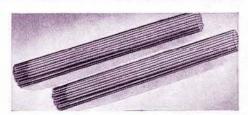
84 R 6587-Copper-Coated Electric Arc Carbon Rods. For use with Twin Carbon Torch (at left), for brazing, 3/8 by 6-in....10 for 1.10

84 R 6578-Plain Electric Arc Carbon Rods. Use with electrode holder for welding, cutting. 1/4 by 6-in. 10 for 50c

84 R 6579-Welding Helmet. Adjustable, fiber helmet to protect eyes. Replaceable arc-proof lens protected by

84 R 9002-Receptacle. For No. 6596-6597 arc welders.

84 R 9003-Polarized Plug, to fit receptacle. Each 2.25 84 R 9004-Rubber Covered Cord. Two No. 6 and one No. 10 ground wire. For above plug and receptacle.



Coated Welding Electrodes

84 R 6574-For Mild Steel Welding-A.C. or D.C.

For better quality, more ductile welds. Easier to weld in difficult positions. Best for 110-volt A.C. machines and on galvanized or painted metal where it is difficult to strike and maintain an arc

Diam. Length Per Lb. 5/64·in. 1/32-in. 1/8-in. 39c 25c 20c 18-in. 18-in.

84 R 6572-For Mild Steel Welding-A.C. or D.C.

high speed production electrodes. For single pass welding and poor fit-up. Best for 220-volt or any A.C. welding machines approved by Underwriters' Laboratories, Inc. Also D.C. machines on straight polarity. Diam. Lgth.Ab. Per Ib.

84 R 6577-For Cast-Iron Welding-A.C. or D.C.

Diameter	Length, Inches	Quantity	Price
3/32	About 18-in.	1-lb.	28c
1/8	About 14-in.	1-lb.	20c



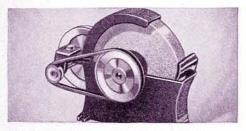
1/4-H. P. Bench Grinders

Ideal for the home or farm workshop. Quickly puts an edge on dull sharp edge tools of all kinds, smooths-off welding jobs, etc. Fully enclosed motor runs at 3450 R.P.M. under a full load. "On-Off" switch in base. With grease sealed new departure Ball Bearings, adjustable tool rests, removable guards, 6 ft. cord and plug, and two Master Quality vitrified wheels, 3/4 by 6-in.—1 medium and 1 fine grit. 1/2-in. diam. shaft. Black crackle finish. For 110-120 Volt, 60-Cycle, A.C.

84 R 6756-14-H.P. Bench Grinder without safety glass shields. .12.95

Industrial Bench Grinders

Shop owners! Garage owners! Here's the most practical, modern grinder in America; so well designed, so heavy, so powerful you won't believe its price ticket. Built to American Abrasive Safety Code Requirements. Has grease-sealed New Departure Ball Bearings. Motor starts as a split phase, runs as an induction, at 3450 R.P.M. under full load. With full length adjustable tool rests, adjustable wheel guards and 2 Master Quality vitrified wheels, I medium and I fine grit. "On-Off" switch in base. 5%-in. diam. shaft. 71/2-ft. cord and plug. For 110-120 Volt, 60-Cycle, A.C.



Slow Speed Grindstone Low Cost Bench Grinder

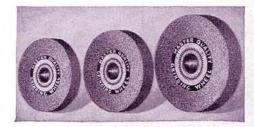
For water grinding. Won't draw temper. Runs at 125 R. P. M.

For sharpening hand tools, knives, etc., to a fine, keen edge. Jack-shaft reduces speed. Has double adjustable tool rest and bronze bearings. %1-inch shaft. Use 1 1/4-in. V-Pulley on 1/3-H.P. Motor, 1750 R.P.M. 84 R 891.



Grinding wheels included at this low Ward price. Compare.

Both the wheels and drive pulley are fully guarded. 3/4-inch spindle (1/2-inch arbor) runs on self-lubricating bronze bearings. One coarse, one fine, 6-inch grinding wheel. With tool rests.....



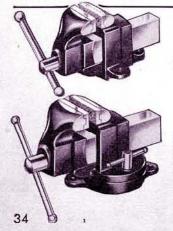
Vitrified Grinding Wheels

None finer made! Dressed on both sides and face for balance.

84 R 8501-Fine grit.

84 R 8500 - Medium grit.

Thick-	4-in.	5-in.	6-in.	Thick-	4-in.	5-in.	6-in.
ness	Diam.	Diam.	Diam.	ness	Diam.	Diam.	Diam.
3/4-in. 1-in.	65c 75c	98c	\$1.05 1.25	3/4-in. 1-in.	65c 75c	98c	\$1.05 1.25



Machinists' Vises Solid or Swivel Base

31/2-IN. JAWS SOLID BASE

Replaceable jaw faces, heavily serrated for slip-proof grip. Semi-steel body.

84 R 6800-Solid, 31/2-in. jaw. Opens 5-in . \$5.95 84 R 6801—Solid, 4-in. jaw. Opens 6-in 7.45

84 R 6802—Solid. 41/2-in. jaw. Opens 61/2-in.8.95 84 R 6805—Swivel. 3 1/2-in. jaw. Opens 5-in.7.95

84 R 6806-Swivel. 4-in. jaw. Opens 6-in. . 9.75 84 R 6807 - Swivel. 4 1/2" jaw. Opens 6 1/2". 11.45

Master Quality Garage Vises

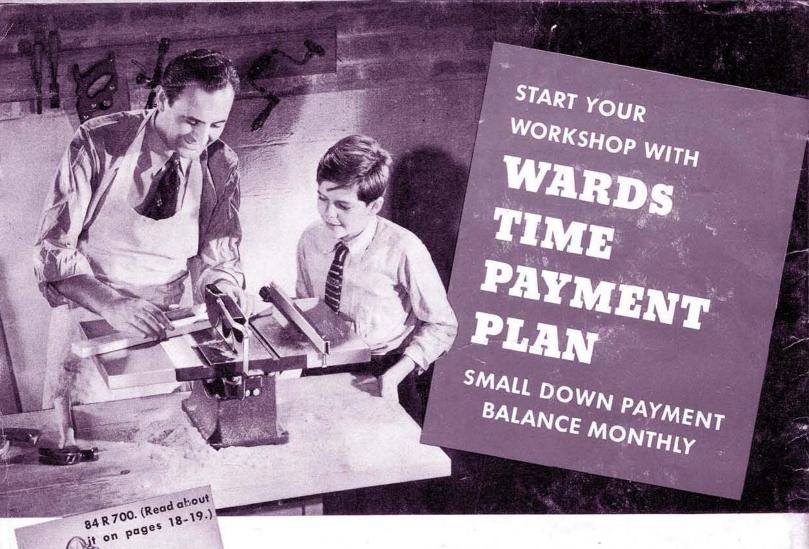
3-IN. JAWS SWIVEL BASE



With nickel-plated handle and screw-will not rust. Extra wide, swivel base for rigidity. Finest Bessemer steel replaceable jaw faces. Semi-steel body. Oversize mild steel slide bar will not bind. Removable malleable iron pipe jaws.

Number	Jaws	Open	Pipe	Lbs.	Each
84 R 6816	3 in.	4½ in.	1/4 to 1 1/4 in.	14	\$2.89
84 R 6817	3 ½ in.	4½ in.	1/4 to 1 1/2 in.	18	3.75
84 R 6818	4 in.	5¼ in.	1/4 to 1 3/4 in.	25	5.95





HOW TO OWN A WORKSHOP

Wards Time Payment Plan will help <u>you</u> to own a workshop, just as it has helped thousands of other fellows. And a far more complete workshop, with finer quality tools than you might otherwise be able to buy! Because if you have only a few dollars in cash to spend, it is far wiser to use them as a down payment on some really <u>fine</u> tools than to purchase just <u>one</u> low-priced tool which may soon prove inadequate for your needs.

Start your shop right! Plan to set aside a few dollars every month regularly to build-up a fine PLANNED WORKSHOP. It's one of the best investments you can make. Why not list the tools and accessories you want? Then ask Wards salesman what the payments will be. If you can't purchase the entire workshop now, you can at least buy the major part of it. In no time, without drawing money from the bank, you'll have your complete PLANNED WORK-SHOP. Begin planning today!

(DM9677-10-4

OF COURSE, ALL POWR-KRAFT TOOLS CARRY THE MONEY-BACK GUARANTEE OF

MONTGOMERY WARD

AND COMPANY, INCORPORATED

