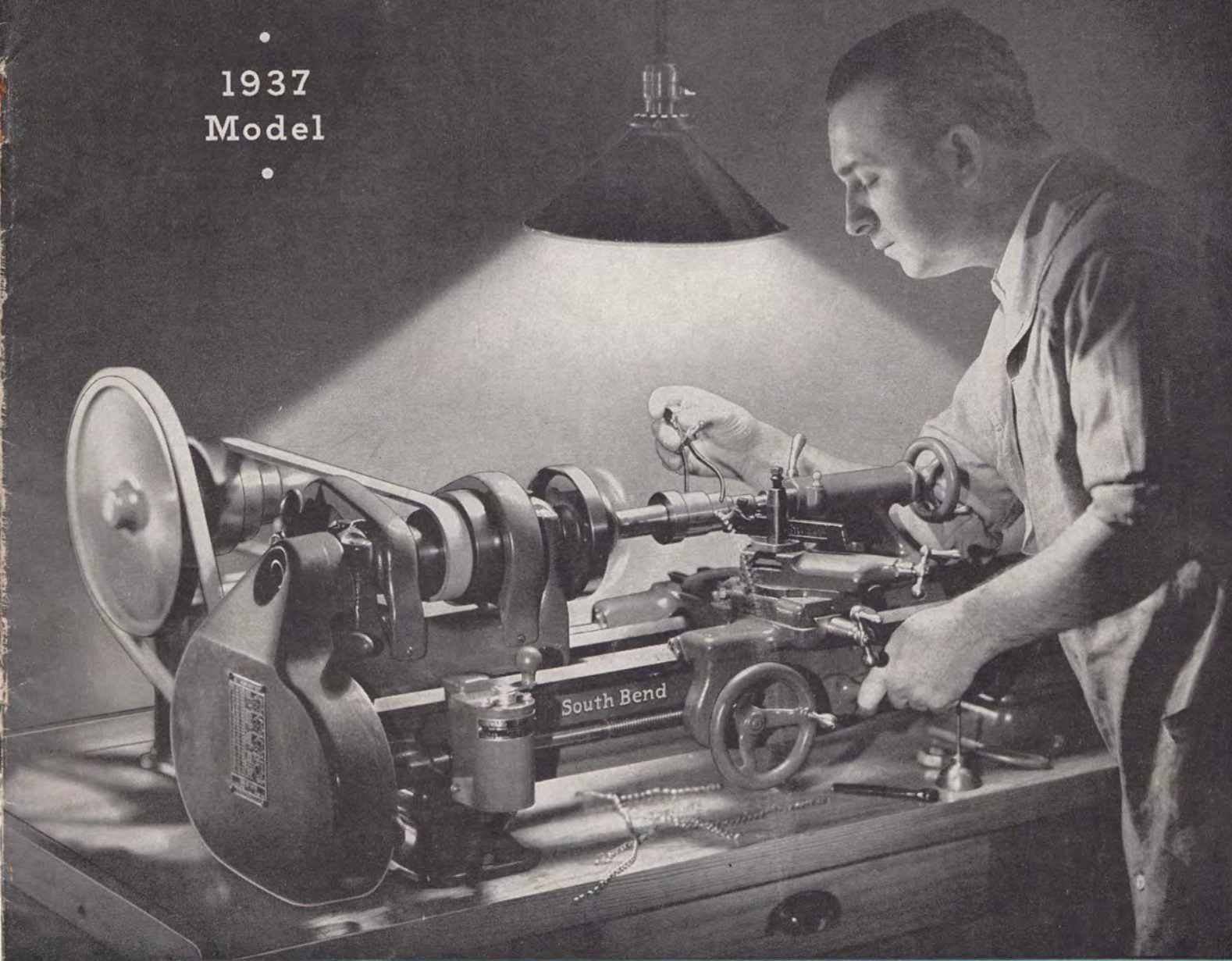


CATALOG NO. 15-K

•
1937
Model
•



The New 1937 Model South Bend
9-inch "WORKSHOP"
Precision Lathe

A BACK-GEARED, SCREW CUTTING LATHE

JANUARY 4, 1937

SOUTH BEND LATHE WORKS
483 Niles Avenue - South Bend, Indiana, U. S. A.

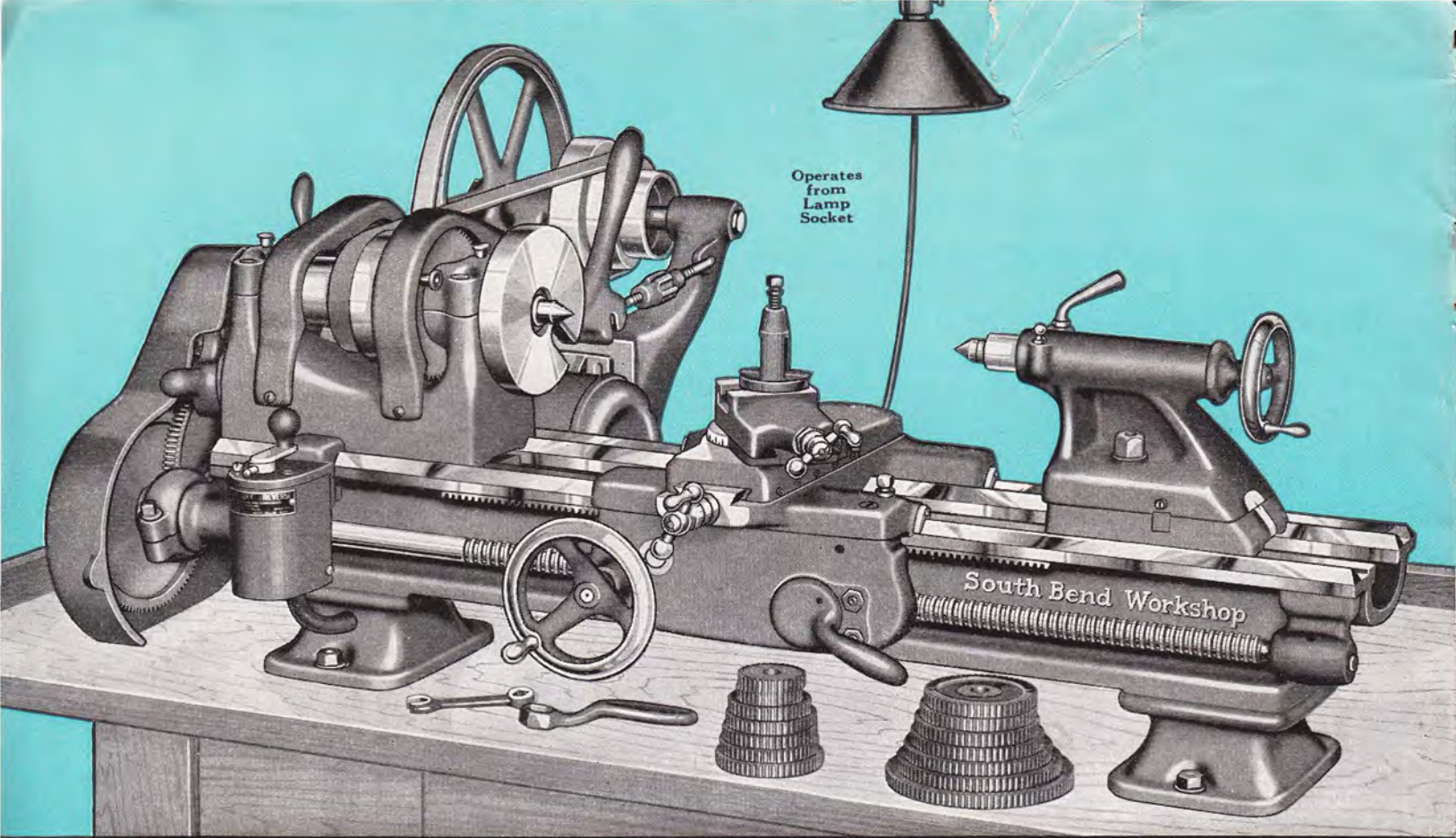


Fig. 1. Cat. No. 415-YA, 9"x3' "Workshop" Motor Driven Precision Bench Lathe, complete as shown, but less bench. (Ship. wt. crated 320 lbs.)... \$116.00

9-inch "Workshop" Motor Driven Bench Lathe—1937 Model

With Adjustable Horizontal Countershaft and Motor Drive Equipment

The 1937 Model 9-inch "Workshop" South Bend Bench Lathe is recommended for use in machine shops, repair shops, manufacturing plants, garages, laboratories, home workshops, and experimental shops where the finest type of back-geared, screw cutting precision lathe is required.

The Adjustable Horizontal Motor Drive, shown in Fig. 2, is practical, convenient and efficient. The countershaft has belt tension adjustment (A and B) for both the cone pulley belt and motor belt. A quick release (C) for cone pulley belt tension permits easy shifting of the belt for changing spindle speeds.

Improved Features including back-geared headstock, ball thrust bearing for spindle, precision lead screw, compound rest, etc., are illustrated and described on pages 10 and 11.

Regular Equipment included in price of lathe consists of; graduated compound rest; face plate 5 inches diameter; forged steel tool post; two 60-degree tool steel lathe centers, No. 2 Morse Taper; headstock spindle sleeve; wrenches; set of independent change gears for screw thread cutting; compound gearing for automatic longitudinal power feeds; installation plan and book. "How to Run a Lathe". Bench information on page 22.

Prices 9-inch "Workshop" Adjustable Horizontal Motor Driven Bench Lathe

No. 15. 9-inch "Workshop" South Bend Precision Bench Lathe, Complete with Graduated Compound Rest and Regular Lathe Equipment, but without Motor Drive Equipment and Less Bench.....	Net Factory Prices f.o.b. South Bend, Ind.			
	9" x 3'	9" x 3½'	9" x 4'	9" x 4½'
	\$ 85.00	\$ 97.00	\$109.00	\$126.00

MOTOR DRIVE EQUIPMENT

Motor Drive Equipment consists of: Adjustable Type Horizontal Countershaft; ¼ H.P. Start-Stop Reversing Split-Phase Motor, 1725 R.P.M. (1-ph. 60-cy., A.C. 110-V.)*; V-Groove Pulley for Motor; Drum Reversing Switch (Style R-12); Bracket for attaching Switch to Lathe; V-Belt, Motor to Drive Unit; Flat Leather Belt and Lacing.....	\$31.00	\$31.00	\$31.00	\$31.00
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Total Price, Lathe with Motor Drive Equipment.....	\$116.00	\$128.00	\$140.00	\$157.00
Catalog Number, Lathe with Motor Drive Equipment.....	No. 415-YA	No. 415-ZA	No. 415-AA	No. 415-RA
Code Word, Lathe with Motor Drive Equipment.....	Magla	Mahik	Manaf	Mandi

Easy Payment Terms. Down Payment with order.....	\$29.00	\$30.00	\$31.00	\$35.00
11 to 12 Equal Monthly Payments, Each.....	8.00	8.50	9.00	11.50

Distance Between Spindle Centers of Lathe.....	17 ins.	23 ins.	29 ins.	35 ins.
Shipping Weight, Lathe and Motor Drive Complete.....	320 lbs.	345 lbs.	370 lbs.	420 lbs.
Collet Capacity, ¼" up by 64ths to.....	½ in.	½ in.	½ in.	½ in.

*Price extra for heavy, rubber covered wiring for connecting motor to switch, together with 6-ft. extension cord and plug, \$1.75.
For additional prices of other motors see page 22.

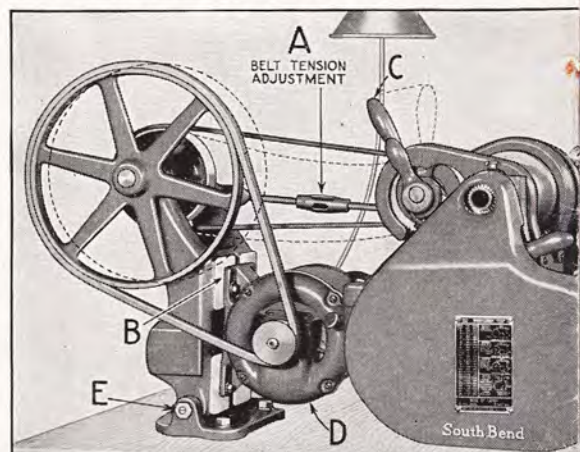


Fig. 2. End View of "Workshop" Lathe with Adjustable Horizontal Motor Drive Countershaft

9-inch "Workshop" South Bend Lathes

A General Description of the 1937 Model "Workshop" Lathe—All Types

The features specifications and general description given below apply to all 1937 Model 9-inch "Workshop" South Bend Lathes shown throughout this catalog. Each lathe is built up of standard units, such as the headstock, tailstock, apron, carriage, bed, etc., which are uniform in design and quality.

The 1937 Model "Workshop" Lathe is recommended for the production of small accurate parts in the manufacturing plant, for precision work in the tool room, for general use in the machine shop, auto service shop, laboratory, school shop, repair shop, home work shop and shops of all kinds engaged in the machining of metals, wood, fibre, bakelite, cast resin plastics, etc.

Convenience and Ease of Operation are assured by the simple, practical design of the lathe. Well placed controls, large easy reading micrometer dials, lever reverse for threads and feeds, graduated compound rest, wrenchless bull gear lock, large hand wheels, and other improvements save time and effort and reduce the possibility of mistakes. See pages 10 and 11.

Accuracy and Durability are built into every South Bend "Workshop" Lathe. The workmanship and materials are the best that can be obtained, and no die castings are used. The substantial design assures permanent alignment of the headstock, tailstock and other major units. Unusually large bearing surfaces give this lathe the power and rigidity for taking heavy cuts and the precision accuracy for the most exacting tool work.

Highest Standards of inspection are maintained, from the planing of the lathe bed to the final inspection tests which are made with the lathe in actual operation. All dovetails and V-ways are carefully hand-scraped and all units are aligned to the most exacting specifications.

Lathe Bed is made of special quality gray iron with 50 per cent steel, which makes a hard, close grained metal having long wearing qualities. Bed is heavily constructed and reinforced by box braces its entire length. Three V-ways and one flat-way accurately planed and hand-scraped, align and support the headstock, carriage and tailstock.

Back-geared Headstock is hand-scraped to lathe bed; has three-step cone pulley; six changes of spindle speeds, three direct and three back-geared; wrenchless bull gear lock; and lever reverse for threads and feeds.

Bearings for Headstock spindle are unusually large, and are line bored and lapped to fit the spindle. The bearings are adjustable for wear, and have an excellent felt wick oiling system.

Headstock Spindle is made of a special quality spindle steel, finish ground, and has a ball thrust bearing. Take-up is provided for eliminating end play. Spindle has a $\frac{3}{4}$ -inch hole bored its entire length, with No. 3 Morse standard taper in front end.

Tailstock is substantially designed with long hand-scraped bearing on bed. Tailstock top has set-over for taper turning. Tailstock spindle is made of special quality spindle steel and has self-ejecting tool steel center.

Carriage has unusually long bearings (over $9\frac{1}{2}$ -inches) on V-ways of lathe bed, providing a solid support for the cutting tool and reducing wear to a minimum. V-ways of saddle are hand-scraped to match V-ways of lathe bed perfectly and are fitted with felt wipers to clean and oil the bed.

Compound Rest is graduated 180 degrees, swivels to any angle, and has improved locking device with double binder. Compound rest screw and cross feed screw have micrometer collars graduated in thousandths. Dovetails are hand-scraped and lapped and have adjustable gibs.

Precision Lead Screw is $\frac{3}{4}$ -inch diameter, 8 Acme standard threads per inch; guaranteed to meet the most exacting requirements for cutting screw threads.

Standard Screw Threads 4 to 40 per inch, right or left-hand, including $1\frac{1}{2}$ pipe thread, can be cut on all 9-inch "Workshop" Lathes. See page 9.

Automatic Longitudinal Feeds for the carriage .0028", .0056", .0072", .008", etc., can be obtained with the change gears supplied with the lathe. See page 9.

Practical Attachments for milling, keyway cutting, grinding, turning tapers, etc., can be supplied. Most of these attachments may be purchased with the lathe or ordered later. See pages 16 to 22.

"Workshop" Lathe Features

Back-geared headstock, six spindle speeds.
Hollow steel spindle, $\frac{3}{4}$ " hole for machining bars and rods.
Ball thrust bearing for headstock spindle.
Adjustable bearings for headstock spindle.
Adjustable gibs on cross feed and compound rest.
Three V-ways and one flat-way on lathe bed.
Precision lead screw for accurate thread cutting.
Half-nuts have long bearing on lead screw.
Automatic longitudinal power feeds to carriage.
Reverse lever for right and left-hand screw threads and automatic longitudinal feeds to carriage.
Micrometer graduations on compound rest screw.
Micrometer graduations on cross feed screw.
Tailstock top has $\frac{3}{8}$ " set-over for taper turning.

"Workshop" Lathe Specifications

Swing over bed..... $9\frac{1}{4}$ "
Swing over carriage..... $5\frac{1}{2}$ "
Collet capacity $\frac{1}{16}$ " up to $\frac{1}{2}$ "..... Hole through spindle $\frac{3}{4}$ "
Automatic longitudinal feeds per revolution of spindle; .0028"; .0056"; .0072"; .008" etc.
Standard screw thread cutting range..... 4 to 40 per in.
Spindle speeds..... 39, 68, 122, 202, 353, 630, r.p.m.
Width of cone pulley belt..... 1"
Lathe tool shank $\frac{3}{8}$ " x $\frac{3}{4}$ "..... Cutter bits..... $\frac{1}{4}$ " x $\frac{1}{4}$ " x 2"
Size of spindle nose..... $1\frac{1}{2}$ " diam. 8 threads
Head and tail spindle lathe centers..... No. 2 Morse Taper
Lead screw, Acme thread..... $\frac{3}{4}$ " diam. 8 threads
Tool cross slide travel..... $5\frac{1}{2}$ "
Angular travel compound rest top..... $2\frac{1}{8}$ "
Tailstock spindle travel..... 2"

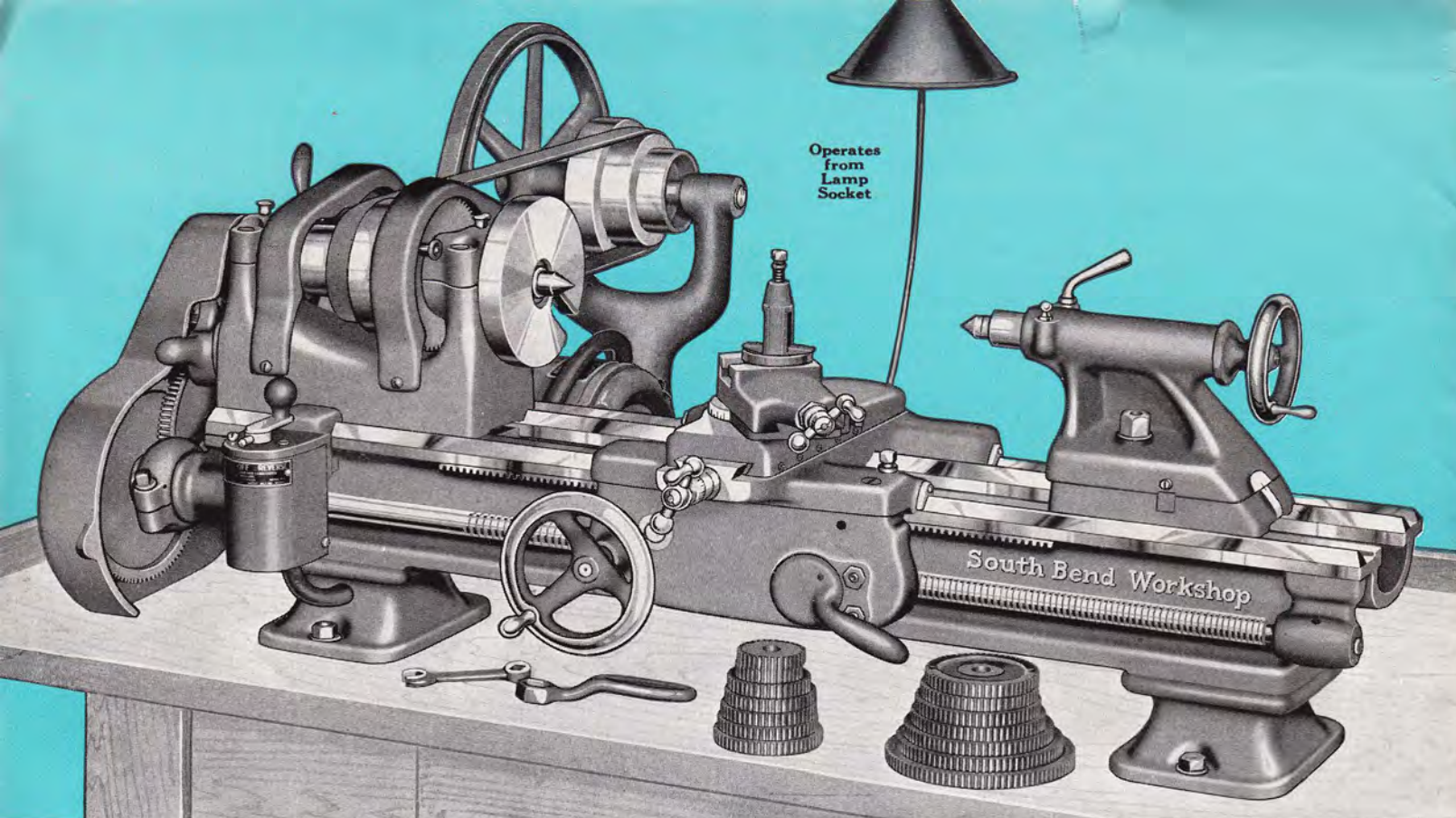


Fig. 3. Cat. No. 415-Y, 9"x3' "Workshop" Motor Driven Precision Bench Lathe, complete as shown but less bench. (Ship. wt. crated 310 lbs.).....\$111.00

9-inch "Workshop" Motor Driven Bench Lathe—1937 Model With Plain Horizontal Countershaft and Motor Drive Equipment

The 1937 Model 9-inch "Workshop" South Bend Bench Lathe with plain horizontal motor drive, illustrated above, is the same as the lathes described on pages 2 and 3 except for the type of drive.

The Plain Horizontal Motor Drive, shown in Fig. 4, is less expensive than the adjustable horizontal motor drive shown on page 2, but is not quite as convenient. The plain horizontal countershaft has slots in the base which permit shifting the countershaft to take up belt stretch. The motor is bolted direct to the bench top.

Improved Features including back-geared headstock, ball thrust bearing for spindle, precision lead

screw, graduated compound rest, tailstock, etc., are illustrated and described in detail on pages 3, 10 and 11.

Regular Equipment included in price of lathe consists of: graduated compound rest; face plate 5 inches diameter; forged steel tool post; two 60-degree tool steel lathe centers, No. 2 Morse Taper; headstock spindle sleeve; wrenches; set of independent change gears for screw thread cutting; compound gearing for automatic longitudinal power feeds; installation blue print and book, "How to Run a Lathe". Bench is not included in price. For bench information see page 22.

Prices 9-inch "Workshop" Horizontal Motor Driven Bench Lathe—Less Bench

No. 15. 9-inch "Workshop" South Bend Precision Bench Lathe, Complete with Graduated Compound Rest and Regular Lathe Equipment, but without Motor Drive Equipment and Less Bench.....	Net Factory Prices f.o.b. South Bend, Ind.			
	9" x 3'	9" x 3½'	9" x 4'	9" x 4½'
	\$ 85.00	\$ 97.00	\$109.00	\$126.00
MOTOR DRIVE EQUIPMENT				
Motor Drive Equipment consists of: Improved Plain Horizontal Countershaft; ¼ H.P. Start-Stop Reversing Split-Phase Motor, 1725 R.P.M. (1-ph. 60-cy., A.C. 110-V.)*; V-Groove Pulley for Motor; Drum Reversing Switch (Style R-12); Bracket for attaching Switch to Lathe; V-Belt, Motor to Drive Unit; Flat Leather Belt and Lacing.....	\$26.00	\$26.00	\$26.00	\$26.00
Total Price, Lathe with Motor Drive Equipment.....	\$111.00	\$123.00	\$135.00	\$152.00
Catalog Number, Lathe with Motor Drive Equipment.....	No. 415-Y	No. 415-Z	No. 415-A	No. 415-R
Code Word, Lathe with Motor Drive Equipment.....	Macan	Macer	Mafab	Maget
Easy Payment Terms. Down Payment with order.....	\$29.00	\$30.00	\$31.00	\$35.00
11 to 12 Equal Monthly Payments, Each.....	8.00	8.50	9.00	11.50
Distance Between Spindle Centers of Lathe.....	17 ins.	23 ins.	29 ins.	35 ins.
Shipping Weight, Lathe and Motor Drive Complete.....	310 lbs.	335 lbs.	360 lbs.	410 lbs.
Collet Capacity, ⅛" up by 64ths to.....	½ in.	½ in.	½ in.	½ in.

*Price extra for heavy, rubber covered wiring for connecting motor to switch, together with 6-ft. extension cord and plug, \$1.75.

For additional prices of other motors see page 22.

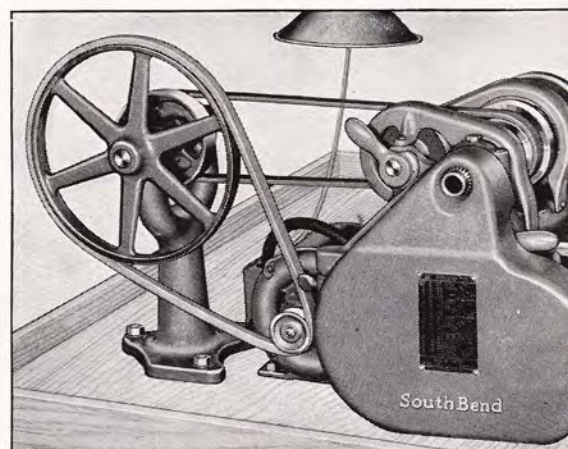


Fig. 4. End View of "Workshop" Lathe with Plain Horizontal Motor Drive Countershaft.

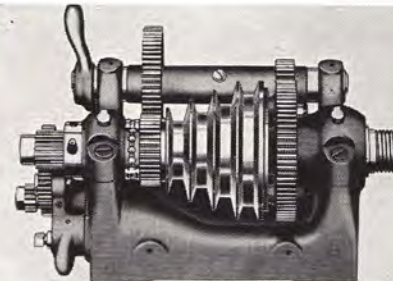
9-inch "Workshop" Bench Lathe—1937 Model

With V-Belt Adjustable Horizontal Motor Drive

The "Workshop" Lathe with V-Belt Adjustable Motor Drive is exactly the same as the lathe shown on pages 2 and 3, except that it is equipped with V-belt cone pulley instead of flat belt cone pulley and has a hardened headstock spindle. Eight spindle speeds are provided, four with open belt and four in back gear, as follows: 44, 60, 82, 113, 230, 313, 424, and 585 R.P.M.

The V-Belt Drive is recommended for manufacturing plants and machine shops where heavy cuts are taken. Also for lathes equipped with $\frac{1}{8}$ H.P. or $\frac{1}{2}$ H.P. motors.

Equipment included in price of lathe consists of: Hardened headstock spindle; V-belt cone pulleys; adjustable horizontal motor drive; $\frac{1}{4}$ H.P. 1725 R.P.M., A.C. 1-phase, 110-volt, 60-cycle, start-stop reversing motor; reversing switch; V-belts; motor pulley; graduated compound rest; face plate; tool post; two 60-degree centers; spindle sleeve; wrenches; change gears; installation plan and book, "How to Run a Lathe." Bench is extra, see page 22.



Headstock for V-Belt Drive

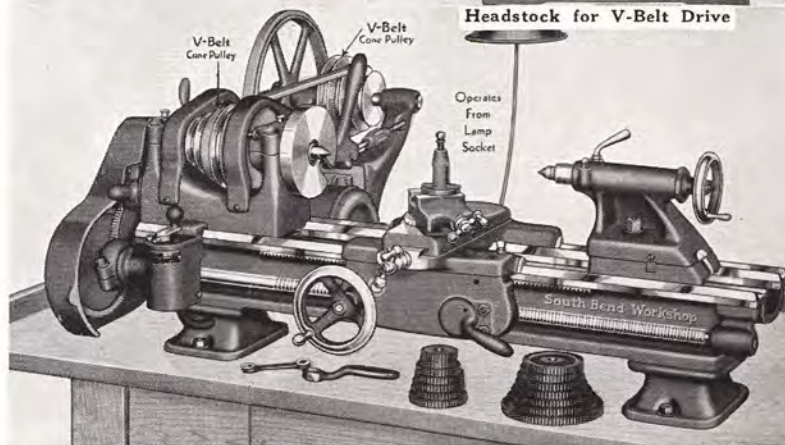


Fig. 5. Cat. No. 415-YV, 9" x 3" "Workshop" V-Belt Horizontal Motor Drive Bench Lathe, complete as shown, less bench. (Ship. wt. 310 lbs.) . . \$136.00

Prices of 9-inch "Workshop" V-Belt Adjustable Horizontal Motor Driven Bench Lathes

Swing Over Bed Inches	Length of Bed Feet	Distance Between Centers Inches	Hole Through Spindle Inches	Swing Over Carriage Inches	Size of Motor H.P.	Approx. Ship. Wt. Crated Pounds	Cash Price			Easy Payment Terms		
							Catalog No.	Code Word	Price F.O.B. Factory	Amount Down Payment	Payment Each Month	Approx. No. of Payments
9¼	3	17	¾	5½	¼	320	415-YV	Kabli	\$136.00	\$31.00	\$ 9.00	12
9¼	3½	23	¾	5½	¼	345	415-ZV	Kaboli	148.00	32.00	10.00	12
9¼	4	29	¾	5½	¼	370	415-AV	Kabro	160.00	35.00	11.50	12
9¼	4½	35	¾	5½	¼	420	415-RV	Kacal	177.00	40.00	13.00	12

*Price extra for heavy, rubber covered wiring for connecting motor with switch, together with 6-ft. extension cord and plug, \$1.75.

End View Showing Adjustable Horizontal V-Belt Motor Drive

9-inch "Workshop" South Bend Bench Lathe—1937 Model

With Countershaft for Lineshaft Drive or Without Countershaft

The 1937 Model 9-inch "Workshop" bench lathes with countershaft drive are exactly the same as the lathes shown on the preceding pages except for the type of drive. They are recommended for shops that are equipped with lineshaft for power. These lathes are also supplied without the countershaft for those who wish to use their own motor drive or countershaft equipment.

Countershaft has two friction clutch pulleys, one of which may be driven with an open belt and the other with a crossed belt, which permits the lathe to be operated forward and in reverse.

Regular Equipment included in price of lathe consists of: Graduated compound rest; face plate; tool post; two 60-degree centers; headstock spindle sleeve; wrenches; installation blue print and book, "How to Run a Lathe." Bench is extra. See page 22.

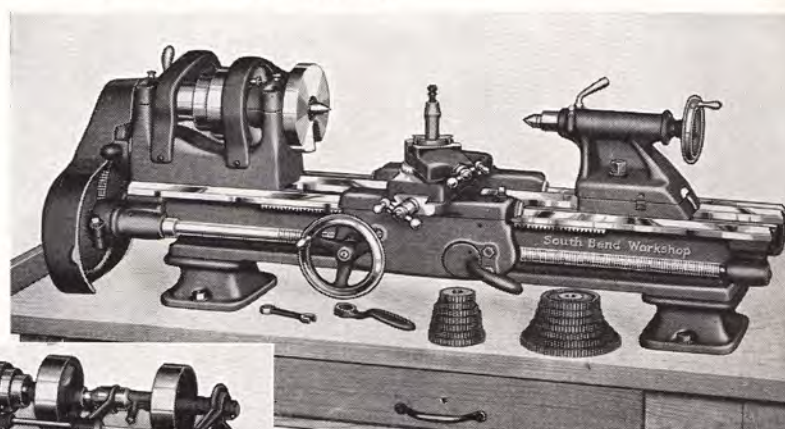


Fig. 5A. Cat. No. 15-YBW, 9" x 3" "Workshop" Bench Lathe, complete with countershaft as shown, but less bench. (Ship. wt. 300 lbs.) . . . \$97.00

Prices of 9-inch "Workshop" Bench Lathe with Regular Equipment, but without Bench

Swing Over Bed Inches	Length of Bed Feet	Distance Between Centers Inches	Hole Through Spindle Inches	Collet Capacity $\frac{1}{8}$ " up by 64ths to	Swing Over Carriage Inches	Power Required Horse Power	Approx. Ship. Wt. Pounds	Prices Without Countershaft			Prices With Countershaft		
								Catalog No.	Code Word	F.O.B. Factory	Catalog No.	Code Word	F.O.B. Factory
9 $\frac{1}{4}$	3	17	$\frac{3}{4}$	$\frac{1}{2}$ "	5 $\frac{1}{2}$	$\frac{1}{4}$	300	15-YB	Manek	\$ 85.00	15-YBW	Makiz	\$ 97.00
9 $\frac{1}{4}$	3 $\frac{1}{2}$	23	$\frac{3}{4}$	$\frac{1}{2}$ "	5 $\frac{1}{2}$	$\frac{1}{4}$	325	15-ZB	Manze	97.00	15-ZBW	Makar	109.00
9 $\frac{1}{4}$	4	29	$\frac{3}{4}$	$\frac{1}{2}$ "	5 $\frac{1}{2}$	$\frac{1}{4}$	350	15-AB	Mapag	109.00	15-ABW	Makel	121.00
9 $\frac{1}{4}$	4 $\frac{1}{2}$	35	$\frac{3}{4}$	$\frac{1}{2}$ "	5 $\frac{1}{2}$	$\frac{1}{4}$	400	15-RB	Mapek	126.00	15-RBW	Makof	138.00

For details of Easy Payment Plan, see page 23.

If floor legs are wanted instead of bench legs add \$10.00 to above prices.

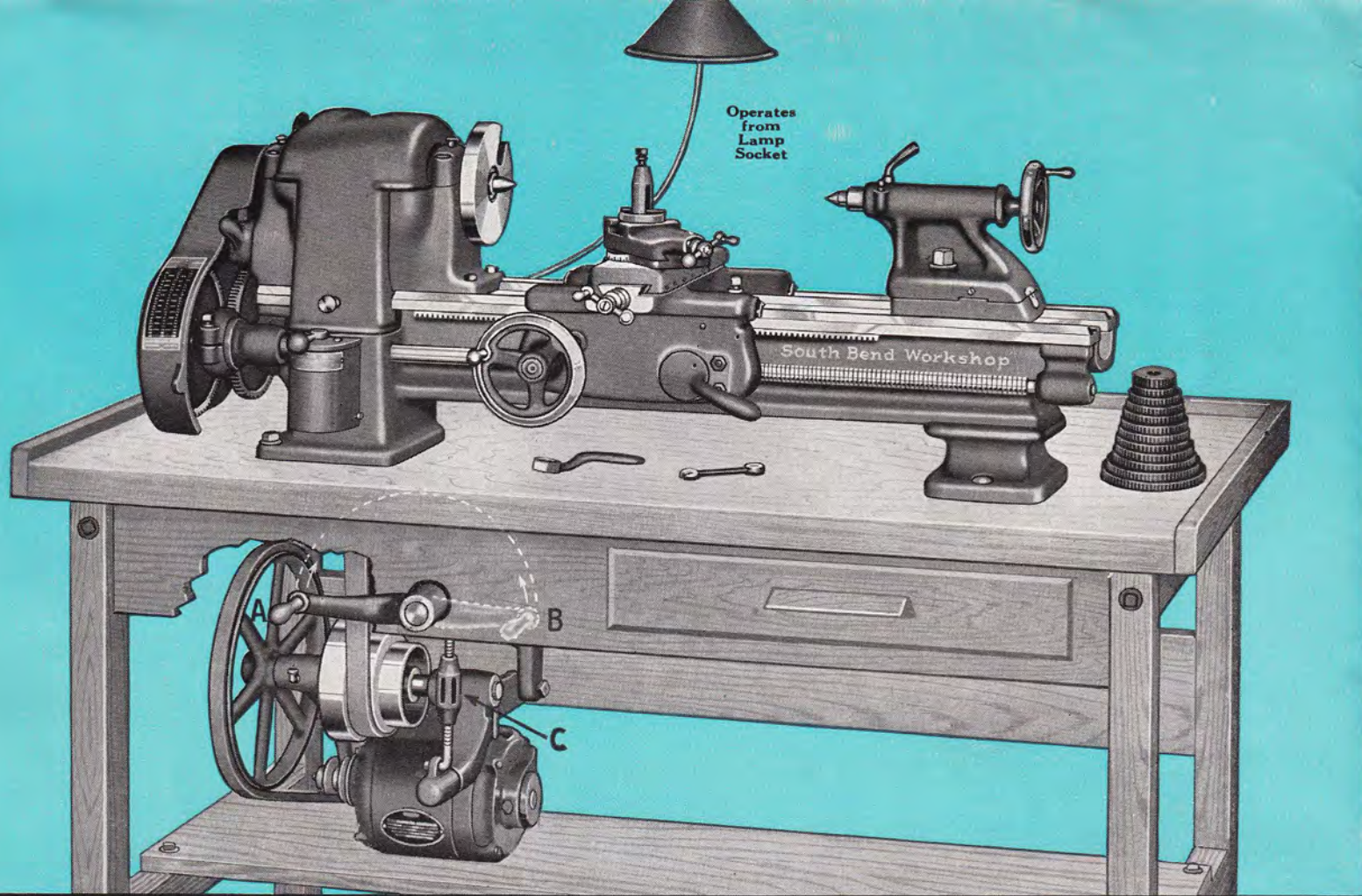


Fig. 7. Cat. No. 115-YB. 9" x 3' "Workshop" Underneath Motor Drive Precision Bench Lathe, complete as shown, but less bench. . . . \$155.00
(Shipping weight crated 340 lbs.)

9-inch "Workshop" Motor Driven Bench Lathe—1937 Model With Adjustable Underneath Motor Drive Equipment

The 1937 Model 9-inch "Workshop" Bench Lathe illustrated above is the same as the lathes shown on the preceding pages, except for necessary alterations in the headstock and bed to accommodate the underneath motor drive. The hinged cone pulley cover may be raised for belt shifting. Bed and legs are cast integral.

Motor Drive Unit is bolted under the bench top. The cone pulley belt tension is released for shifting the belt by moving the crank handle "A" to position "B." Any desired belt tension can be obtained by adjusting the turnbuckle "C."

Hardened Headstock Spindle is included as regular equipment on all Underneath Motor Driven Lathes.

Improved Features including back-geared headstock, ball thrust bearing for spindle, precision lead

screw, compound rest, etc., are illustrated and described on pages 3, 10 and 11.

Regular Equipment included in price of lathe consists of: graduated compound rest; face plate 5-inches diameter; forged steel tool post; two 60-degree tool steel lathe centers, No. 2 Morse Taper; headstock spindle sleeve; wrenches; set of independent change gears for screw thread cutting; compound gearing for automatic longitudinal power feeds; installation plan and book, "How to Run a Lathe". See bench data on page 22.

Electrical Equipment included in price consists of: underneath motor drive countershaft complete with 1/4 H.P. 1725 R.P.M. 1-ph. 60-cycle, A.C. 110-V. start-stop reversing motor, reversing switch, motor pulley, belting, and wire for connecting motor to switch.

Prices of 9-inch "Workshop" Adjustable Underneath Motor Driven Precision Bench Lathe—Less Bench

Swing Over Bed Inches	Length of Bed Feet	Distance Between Centers Inches	Hole Through Spindle Inches	Collet Capacity 1/16" up by 64ths to	Swing Over Carriage Inches	Size of Motor H.P.	Approx. Ship. Wt. Crated Pounds	Cash Price			Easy Payment Plan†		
								Catalog No.	Code Word	Price F.O.B. Factory	Amount Down Payment	Payment Each Month	Approx. No. of Payments
9 1/4	3	17	3/4	1/2"	5 1/2	1/4	340	115-YB	Edhar	\$155.00	\$35.00	\$11.50	12
9 1/4	3 1/2	23	3/4	1/2"	5 1/2	1/4	365	115-ZB	Edhiz	167.00	35.00	11.50	12
9 1/4	4	29	3/4	1/2"	5 1/2	1/4	390	115-AB	Edhof	179.00	40.00	13.00	12

For additional prices of other motors see page 22.

†For details of Easy Payment Plan see page 23.

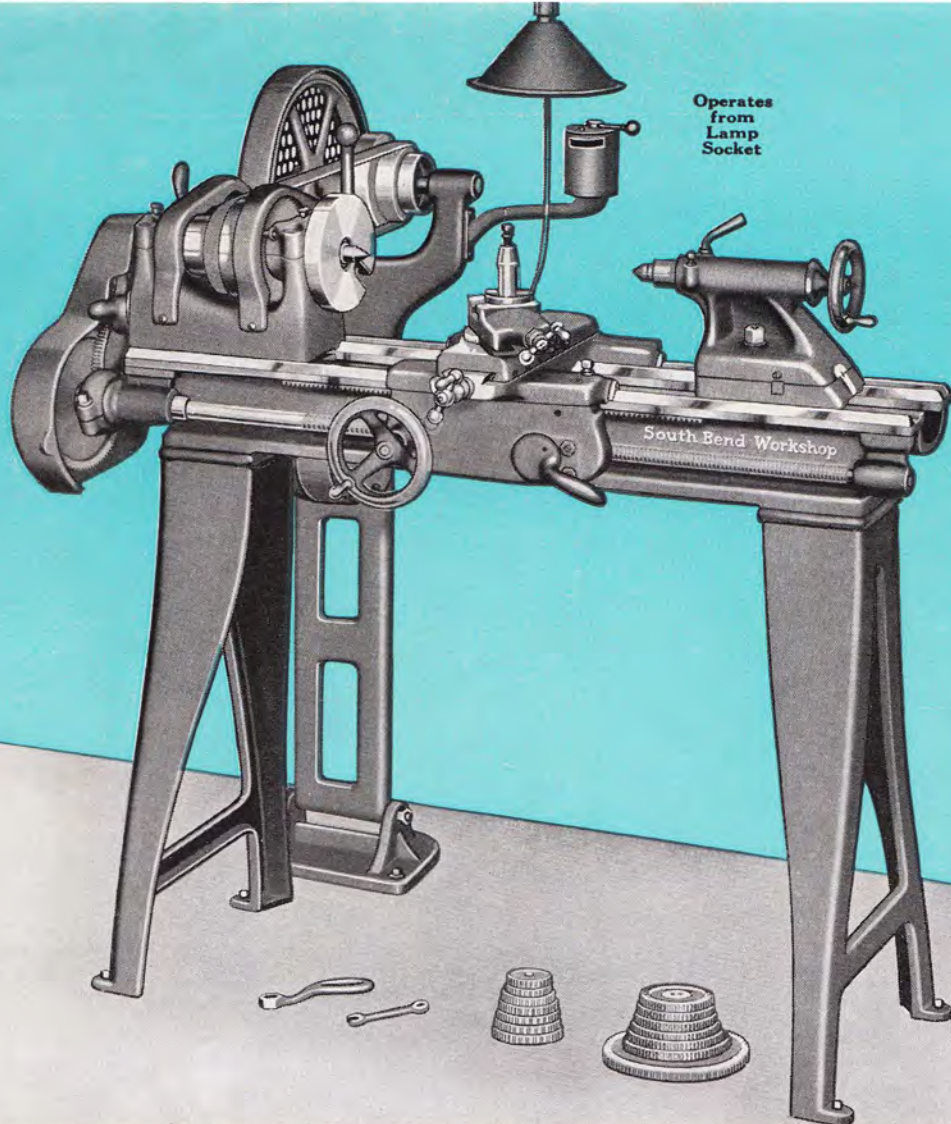


Fig. 8. Cat. No. 915-Y. 9'x3' "Workshop" Pedestal Adjustable Motor Driven Precision Floor Leg Lathe, complete as shown. (Ship. wt. crated 440 lbs.)\$141.00



Fig. 9. End View of Pedestal Motor Drive Showing Arrangement of Motor, Belt Adjustment, Etc.

9-inch "Workshop" Pedestal Motor Driven Lathe—1937 Model With Pedestal Adjustable Motor Drive and Floor Legs

The 1937 Model 9-inch "Workshop" lathes with pedestal adjustable motor drive are recommended for shops requiring an efficient motor driven floor leg lathe. Except for the type of drive, these lathes are the same as those described on the preceding pages.

The Pedestal Motor Drive is very practical as it permits placing the lathe in any position in the shop. The lathe is relieved of all strain as the weight of the motor is supported by the pedestal, and an adjustable tension brace between the countershaft and the lathe headstock counteracts the pull of the belt.

Adjustment is provided for taking up belt stretch and a belt tension release permits easy shifting of belt.

Regular Equipment included in price of lathe consists of: graduated compound rest; face plate 5-inches diameter; forged steel tool post; two 60-degree tool steel lathe centers; No. 2 Morse Taper; headstock spindle sleeve; wrenches; set of independent change gears for screw thread cutting; compound gearing for automatic longitudinal power feeds; installation plan and instruction book, "How to Run a Lathe".

Electrical Equipment included in price of lathe consists of: pedestal motor drive countershaft complete with $\frac{1}{4}$ H.P. 110 Volt A.C. start-stop type reversing motor, reversing switch, motor pulley, belting and wire to connect motor to switch.

Prices of 9-inch "Workshop" Pedestal Adjustable Motor Driven Precision Lathe—Floor Legs

Swing Over Bed Inches	Length of Bed Feet	Distance Between Centers Inches	Hole Through Spindle Inches	Collet Capacity $\frac{1}{8}$ " up by 64ths to	Swing Over Carriage Inches	Size of Motor H.P.	Approx. Ship. Wt. Crated Pounds	Cash Price			Easy Payment Terms†		
								Catalog No.	Code Word	Price F.O.B. Factory	Amount Down Payment	Payment Each Month	Approx. No. of Payments
9 $\frac{1}{4}$	3	17	$\frac{3}{4}$	$\frac{1}{2}$	5 $\frac{1}{2}$	$\frac{1}{4}$	440	915-Y	Harob	\$141.00	\$32.00	\$10.00	12
9 $\frac{1}{4}$	3 $\frac{1}{2}$	23	$\frac{3}{4}$	$\frac{1}{2}$	5 $\frac{1}{2}$	$\frac{1}{4}$	465	915-Z	Haret	153.00	35.00	11.50	12
9 $\frac{1}{4}$	4	29	$\frac{3}{4}$	$\frac{1}{2}$	5 $\frac{1}{2}$	$\frac{1}{4}$	490	915-A	Hemir	165.00	35.00	11.50	12
9 $\frac{1}{4}$	4 $\frac{1}{2}$	35	$\frac{3}{4}$	$\frac{1}{2}$	5 $\frac{1}{2}$	$\frac{1}{4}$	540	915-R	Hemar	182.00	40.00	13.00	12

For additional prices of other motors see page 22.

†For details of Easy Payment Plan see page 23.

9-inch "Workshop" Tool Room Lathe

1937 Model Adjustable Horizontal Motor Drive

The 1937 Model 9-inch "Workshop" Tool Room Lathe is the same as the lathes illustrated and described on the preceding pages, except that it is equipped with hardened and ground headstock spindle, hand wheel draw-in collet chuck with one round collet, any fractional size, $\frac{1}{16}$ in. to $\frac{1}{2}$ in. capacity; taper attachment; micrometer carriage stop and thread cutting stop for tool room work.

Prices also include $\frac{1}{4}$ h.p., 1725 R.P.M., 1-phase 60-cycle, A.C. 110-V. start and stop type reversing split-phase motor,* drum reversing switch, adjustable horizontal motor drive countershaft, belting, motor pulley, and regular lathe equipment. Bench is not included in price. For bench information see page 22.

Net Factory Prices, F.O.B. Cars, South Bend, Indiana

Swing Over Bed Inches	Length of Bed Feet	Distance Between Centers Inches	Hole Thru Spindle Inches	Collet Capacity $\frac{1}{16}$ " up by 64ths	Size of Motor H.P.	Approx. Ship. Wt. Crated Pounds	Cat. No.	Code Word	Price F. O. B. Factory
9 $\frac{1}{4}$	3	17	$\frac{3}{4}$	$\frac{1}{2}$ "	$\frac{1}{4}$	350	8415-YA	Clawn	\$233.50
9 $\frac{1}{4}$	3 $\frac{1}{2}$	23	$\frac{3}{4}$	$\frac{1}{2}$ "	$\frac{1}{4}$	375	8415-ZA	Claxo	245.50
9 $\frac{1}{4}$	4	29	$\frac{3}{4}$	$\frac{1}{2}$ "	$\frac{1}{4}$	400	8415-AA	Clebu	257.50
9 $\frac{1}{4}$	4 $\frac{1}{2}$	35	$\frac{3}{4}$	$\frac{1}{2}$ "	$\frac{1}{4}$	450	8415-RA	Clefy	274.50

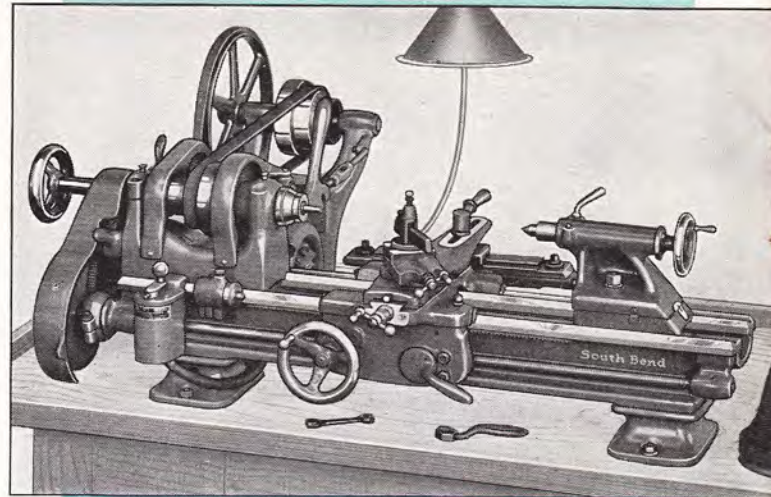


Fig. 10. Cat. No. 8415-YA, 9"x3' "Workshop" Precision Bench Lathe with Adjustable Horizontal Motor Drive, complete as shown, but less bench\$233.50

9-inch "Workshop" with Raising Blocks

Swing Over Bed Increased to 11 $\frac{1}{4}$ Inches

Raising Blocks under headstock, tailstock and tool rest may be ordered with any 9-inch "Workshop" lathe (except underneath motor drive) to increase the swing of the lathe from 9 $\frac{1}{4}$ " to 11 $\frac{1}{4}$ ". Tabulation below shows prices of two popular models of "Workshop" Lathes equipped with raising blocks. Bench is not included in price. For bench information see page 22.

Prices of other models with raising blocks may be determined by adding \$30.00 to price of lathe.

Prices of all motor driven lathes include $\frac{1}{4}$ h.p., 1-phase 60-cycle, A.C. start-stop reversing motor* and regular equipment.

Prices of 9-inch "Workshop" Lathe with Raising Blocks

Swing Over Bed Inches (with Raising Blocks)	Length of Bed Feet	Swing Over Carriage Inches	Approx. Ship. Wt. for Crated Adjustable Hor. Drive Lathe Pounds	Plain Lathe without Drive Equipped with Raising Blocks See Page 5		Lathe with Horizontal Drive Adjustable Type Equipped with Raising Blocks See Page 2	
				Cat. No.	Price	Cat. No.	Price
11 $\frac{1}{4}$	3	7 $\frac{1}{4}$	340	6015-YB	\$115.00	6415-YA	\$146.00
11 $\frac{1}{4}$	3 $\frac{1}{2}$	7 $\frac{1}{4}$	365	6015-ZB	127.00	6415-ZA	158.00
11 $\frac{1}{4}$	4	7 $\frac{1}{4}$	390	6015-AB	139.00	6415-AA	170.00
11 $\frac{1}{4}$	4 $\frac{1}{2}$	7 $\frac{1}{4}$	440	6015-RB	156.00	6415-RA	187.00

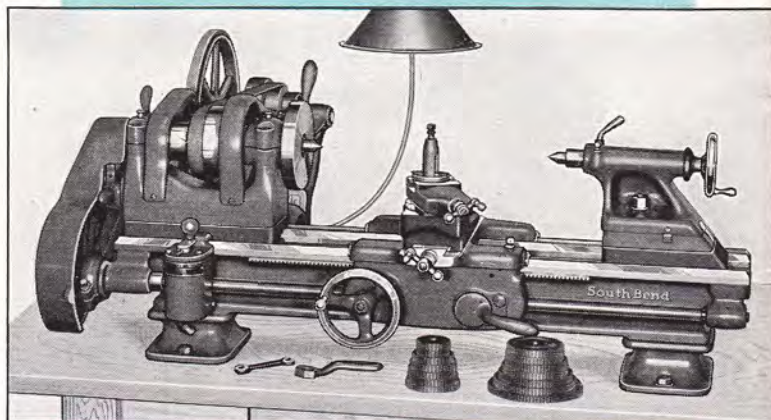


Fig. 11. Cat. No. 6415-YA, 9"x3' "Workshop" Precision Bench Lathe with Raising Blocks and Adjustable Horizontal Motor Drive, complete as shown, but less bench\$146.00

9-inch "Workshop" Oil Pan Lathe

With Overhead Countershaft Drive and Floor Legs

The 1937 Model 9-inch "Workshop" Lathe shown at the right is the same as the lathes illustrated and described on the preceding pages, except that this lathe has a steel oil pan to catch oil and chips. Specifications and features are listed on page 3. Prices listed below include double friction countershaft and regular lathe equipment.

Net Factory Prices, F.O.B. Cars, South Bend, Indiana

Swing Over Bed Ins.	Length of Bed Feet	Dist. Between Centers Ins.	Hole Thru Spindle Ins.	Collet Capacity $\frac{1}{16}$ " up by 64ths	Counter-shaft Speed R.P.M.	Power Re-quired H.P.	Approx. Ship. Wt. Crated Pounds	Cat. No.	Code Word	Price F.O.B. Factory
9 $\frac{1}{4}$	3	17	$\frac{3}{4}$	$\frac{1}{2}$ "	288	$\frac{1}{4}$	410	215-YW	Marel	\$128.00
9 $\frac{1}{4}$	3 $\frac{1}{2}$	23	$\frac{3}{4}$	$\frac{1}{2}$ "	288	$\frac{1}{4}$	435	215-ZW	Marho	141.00
9 $\frac{1}{4}$	4	29	$\frac{3}{4}$	$\frac{1}{2}$ "	288	$\frac{1}{4}$	460	215-AW	Marta	154.00
9 $\frac{1}{4}$	4 $\frac{1}{2}$	35	$\frac{3}{4}$	$\frac{1}{2}$ "	288	$\frac{1}{4}$	510	215-RW	Marub	172.00

Oil Pan Equipment for Motor Driven Lathes

Oil Pan and special oil pan legs can be fitted to the motor driven lathe shown on page 7 at the following prices when ordering with lathe: 9" x 3' lathe, \$21.00; 9" x 3 $\frac{1}{2}$ ' lathe, \$22.00; 9" x 4' lathe, \$23.00; 9" x 4 $\frac{1}{2}$ ' lathe, \$24.00. Prices of oil pan equipment for other lathes, oil pump, piping, etc. quoted on request.

*For additional prices of other motors see page 22.



Fig. 12. Cat. No. 215-YW, 9"x3' "Workshop" Countershaft Driven Oil Pan Lathe, complete as shown.....\$128.00

Accuracy of 1937 Model 9-inch "Workshop" Lathe

Each Lathe Carefully Tested

Precision Accuracy is built into every 1937 Model 9-inch "Workshop" Lathe. From the planning of the lathe bed to the final testing of the finished lathe, the highest standards of inspection are maintained. All V-ways and dovetails are carefully hand-scraped and all units are aligned to the most exacting specifications.

Sixty-four major accuracy tests made on each lathe during the process of manufacturing assure interchangeability of parts and precision accuracy in the finished product. The 1937 Model "Workshop" Lathe is substantially constructed so that it will retain this accuracy through years of service.

Alignment of Spindle with the lathe bed is tested with a dial indicator and test bar as shown in Fig. 15 at right. The run-out at the outer end of the test bar, which is six inches long, must be less than .001" and the alignment with the lathe bed in both the vertical and horizontal plane must be within .001". This is only one of many rigid tests.

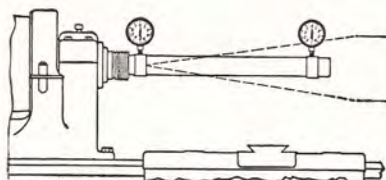


Fig. 13. Testing Alignment of Headstock Spindle with Lathe Bed.

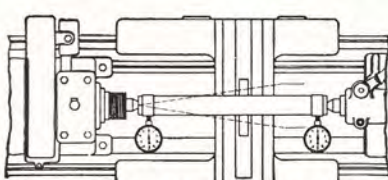


Fig. 14. Testing Alignment of Tailstock Spindle with Headstock Spindle.

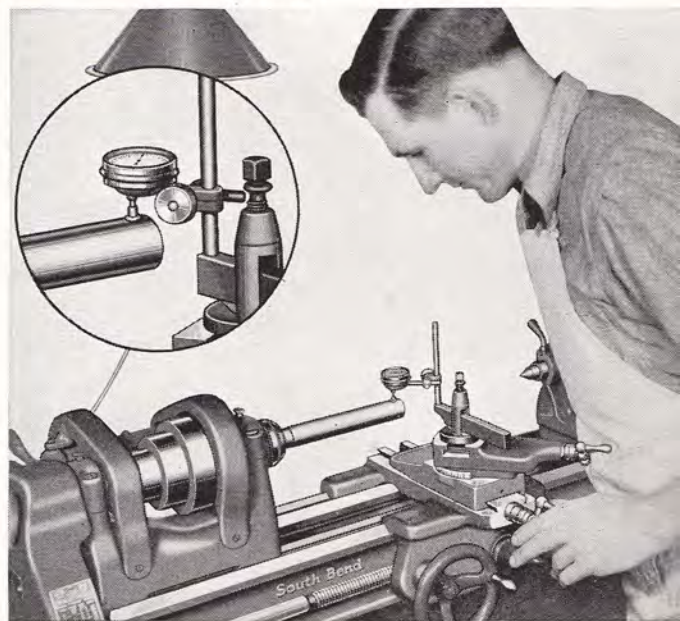


Fig. 15. Testing Alignment of Headstock Spindle with V-ways of Lathe Bed.

Cutting Screw Threads on 1937 Model Workshop Lathe

Cuts 4 to 40 Threads Per Inch—R. H. or L. H.

Standard Screw Threads, from 4 to 40 per inch, right or left-hand, including 1 1/2 and 27 pipe thread, as listed on the screw thread cutting chart at the left, can be cut on the 9-inch "Workshop" Lathe.

Fine Screw Threads 44 to 80 per inch can be cut with fine screw thread cutting attachment described and priced on page 19.

Special Threads can be cut by using special change gears which can be supplied at extra cost. Prices on application.

Metric Screw Threads .5 mm. to 8.0 mm. pitch can be cut with the metric transposing attachment described and priced on page 19.

Automatic Longitudinal Feeds .0028", .0056", .0072", and .008" per revolution of spindle can be obtained with the change gears supplied with the lathe.

SCREW THREAD CUTTING CHART		
9-inch WORKSHOP LATHE		
THREADS TO CUT	STUD GEAR	SCREW GEAR
4	64	32
5	64	40
6	64	48
7	64	56
8	64	64
9	64	72
10	32	40
11	32	44
1 1/2	32	46
12	32	48
13	32	52
14	32	56
16	32	64
18	32	72
20	32	80
22	16	44
24	16	48
26	16	52
27	16	54
28	16	56
30	16	60
32	16	64
36	16	72
40	16	80

Fig. 16. Thread Cutting Chart attached to 9-inch "Workshop" Lathe.

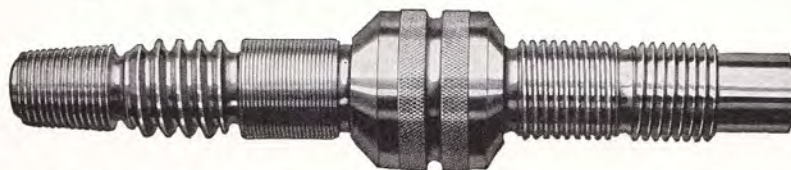


Fig. 17. Sample threaded piece showing various types of threads cut on a 9-inch "Workshop" Lathe.

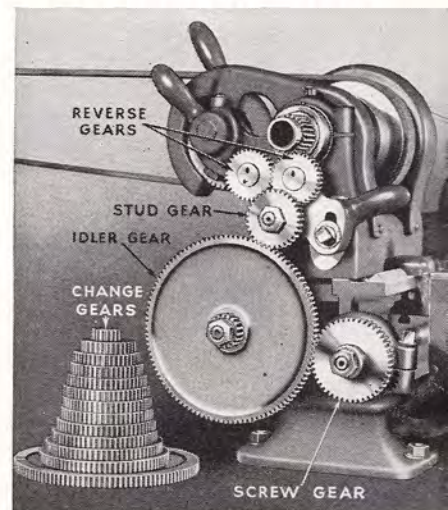


Fig. 18. Change Gear Equipment Supplied with 9-inch "Workshop" Lathes.

Power and Capacity of 1937 Model 9-inch "Workshop" Lathes

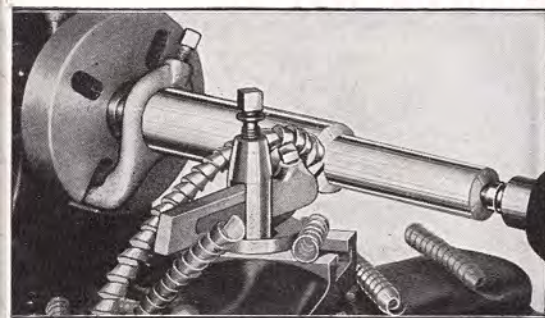


Fig. 19. Reducing the Diameter of a Steel Shaft more than 1/4-inch in one cut on a 9-inch "Workshop" Lathe.

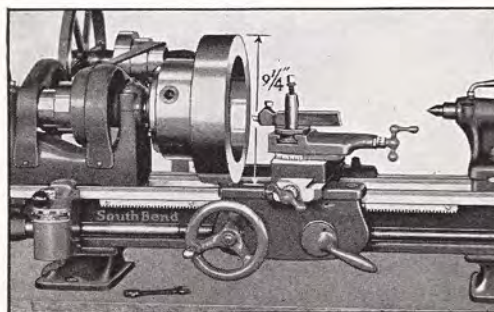


Fig. 20. Capacity of 9-inch "Workshop" Lathe for Chuck or Face Plate work is 9 1/4 inches in diameter as shown.

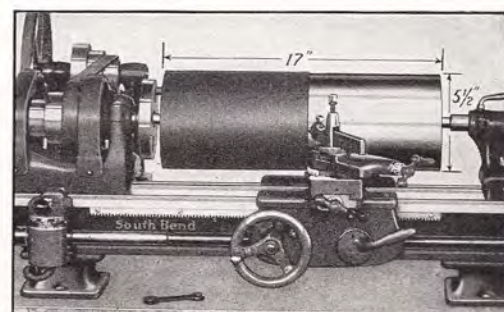


Fig. 21. 9" x 3' "Workshop" Lathe takes work 5 1/2 inches in diameter and 17 inches long over the tool carriage.

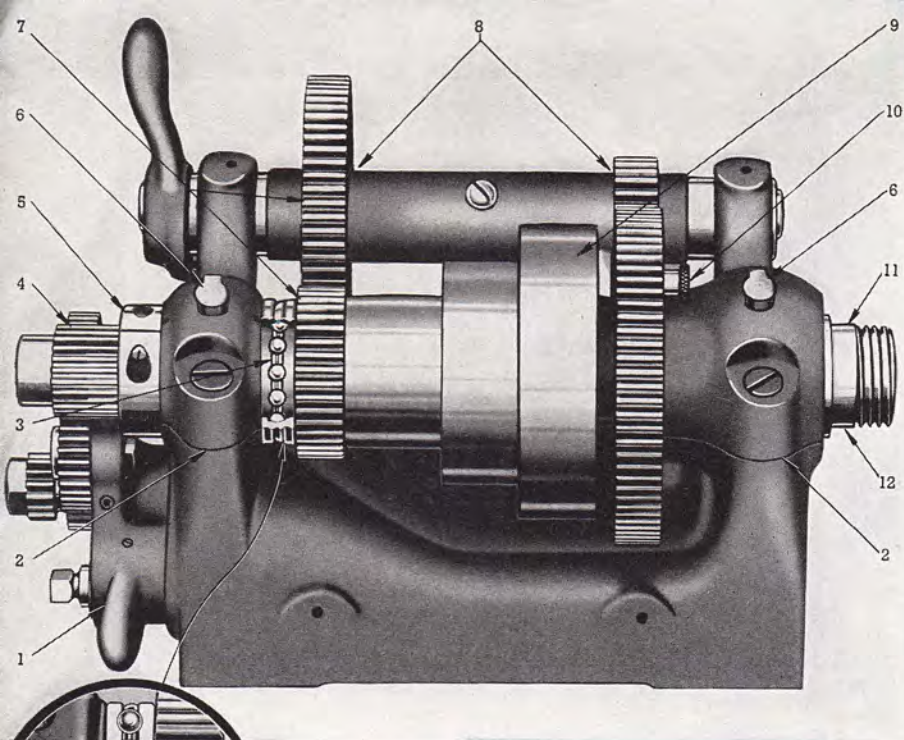


Fig. 22. "Workshop" Lathe Headstock with Gear Guard Removed.

Fig. 23. Left, Ball Thrust Bearing for Headstock Spindle



Fig. 24. Headstock Spindle for "Workshop" Lathe. Made of special quality spindle steel.

Hollow Headstock Spindle

Headstock Spindle for 1937 Model 9-inch "Workshop" Lathe is machined from a solid bar of alloy spindle steel and has a $\frac{3}{4}$ " hole bored its entire length. Rear spindle bearing is $1\frac{3}{8}$ " x $1\frac{3}{8}$ ", front bearing $1\frac{1}{8}$ " x $2\frac{1}{4}$ ". Spindle has No. 3 Morse taper with sleeve which takes No. 2 Morse taper center. Bearing surfaces are accurately ground and tested.

Hardened Headstock Spindle is an optional feature on the "Workshop" Lathe. Unsurpassed for long life and precision service. Recommended for lathes to be operated at high speed or on heavy production. Price of hardened spindle instead of regular spindle \$10.00.

Improved Carriage

Carriage is of standard engine lathe design assuring permanent accuracy and rigid support for the lathe tool. The saddle has unusually long bearings (over $9\frac{1}{2}$ ") hand-scraped to the front and rear V-ways of the lathe bed. Carriage lock is provided for facing and cutting-off.

Compound Rest is constructed entirely of best quality steel and iron—no die castings. Tool post is of drop forged steel, heat treated and hardened. Swivel is graduated 180 degrees and can be locked at any angle. Dovetails are carefully hand-scraped and lapped and have adjustable gibs. Cross feed and compound rest screws have adjustable micrometer collars.

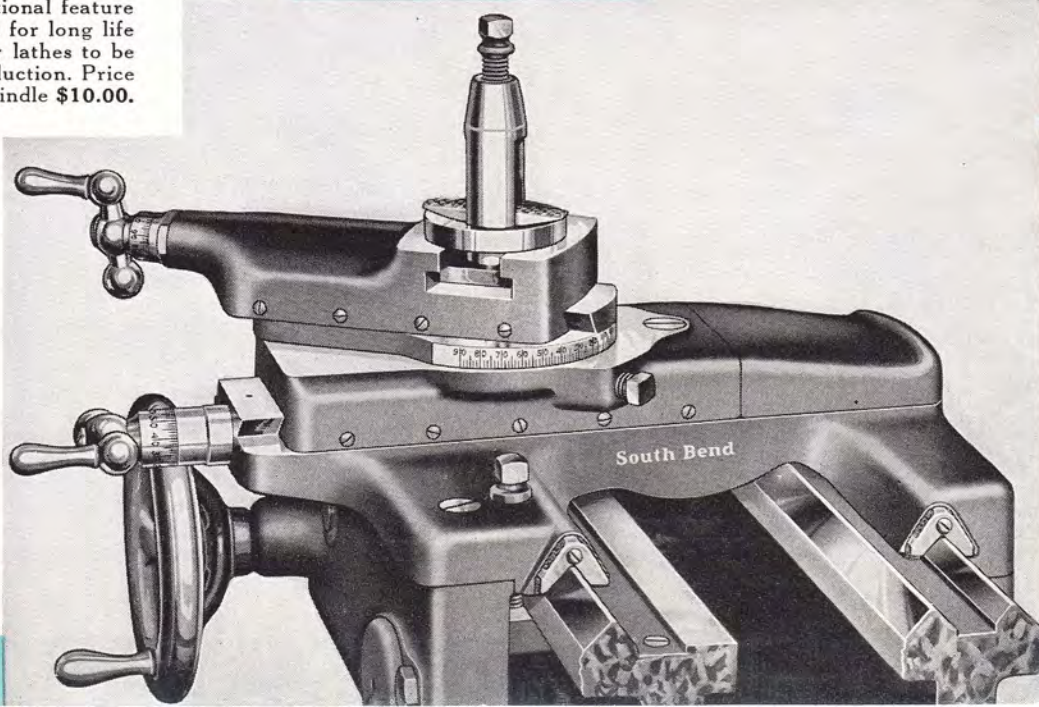


Fig. 25. Below. Carriage for 9-inch "Workshop" Lathe.

Back-Geared Headstock Has Ball Thrust Bearing

The Back-Geared Headstock used on the 1937 Model 9-inch "Workshop" Lathe, has many new features and improvements, a few of which are pointed out in Figure 22 and listed below.

Headstock is reinforced and webbed giving it strength and rigidity. The base is hand-scraped and accurately aligned with the inside V-way and flat-way on the lathe bed.

Improved Features

1. Reverse lever for screw threads and feeds.
2. Large spindle bearings, adjustable for wear.
3. Ball thrust bearing for headstock spindle.
4. Accurate cut gearing for screw threads and longitudinal power feeds to carriage.
5. Take-up nut for eliminating end play of headstock spindle.
6. Felt wick oiling system for spindle bearings.
7. Smooth running machine-cut back gears.
8. Back-gear ratio, 5 to 1, provides ample power for heavy cuts.
9. Cone pulley for 1" belt, machined and balanced for smooth operation.
10. Quick acting wrenchless bull gear lock.
11. Headstock spindle of special alloy spindle steel accurately threaded for face plates.
12. Hardened spindle instead of regular headstock spindle \$10.00 extra.

Lathe Bed is Heavily Constructed

Large V-ways Assure Permanent Accuracy

The Bed for the 1937 Model 9-inch "Workshop" Lathe has three large V-ways and one flat-way which align the headstock, tailstock and carriage and assure permanent accuracy of the lathe. The carriage slides on the two outside V-ways and the headstock and tailstock are aligned by the inside V-way and flat-way.

V-ways and flat-way of the bed are carefully machined and hand-scraped. All bearing surfaces must be straight and parallel within .001" the entire length of the bed and must show a good even bearing.

The metal used for the lathe bed is a special mixture, 50% steel and 50% gray-iron, which produces a hard, close grained casting having long wearing qualities. Heavy box braces are cast in at short intervals the entire length to reinforce the substantial one-piece casting.



Fig. 26. End View of Lathe Bed



Fig. 27. Top View of Lathe Bed Showing Box Braces Cast in at close intervals.

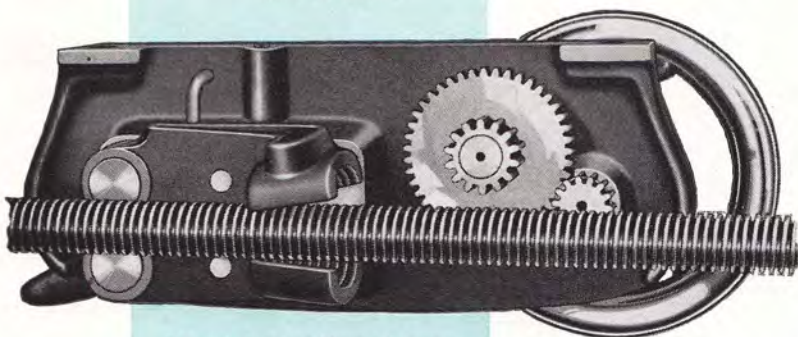


Fig. 28. Interior View of Apron Showing Half-nuts and Gearing.



Fig. 29. Section of Acme Thread Precision Lead Screw Actual Size.

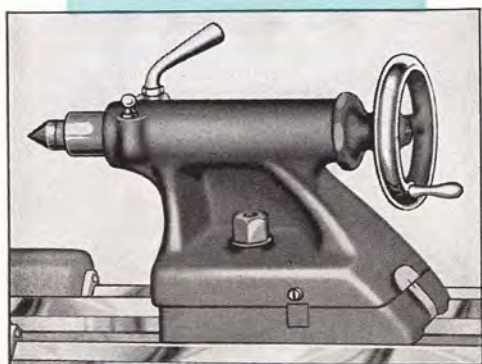


Fig. 30. Improved Tailstock has long bearing on lathe bed and set-over for taper turning.



Fig. 31. Graduated Tailstock Spindle.

The three large prismatic V-ways and the flat-way of the "Workshop" lathe bed are clearly shown in Fig. 26, above. V-ways are used on the beds of all fine lathes because this design assures permanent alignment of the headstock, tailstock and carriage and the accuracy and efficiency of the lathe are not affected by wear.

Substantial Apron Design

Large Half-nuts Steel Rack Pinion

Apron of the 9-inch "Workshop" Lathe is convenient, easy to operate, strong and powerful. The illustration shows an interior view of the apron, with a section of the lead screw, the opened half-nuts and the steel rack pinion which reduction gearing used for operating carriage by hand. An improved oiling system lubricates the half-nuts, the threads of the lead screw and the apron gearing.

Half-Nuts are operated by a cam lever to engage with the lead screw for cutting screw threads and for power longitudinal carriage feeds. They have a long bearing on the lead screw and both halves are threaded.

Large Hand Wheel on the front of the apron is used for operating the carriage by hand. Reduction gearing connects hand wheel with a steel pinion which meshes with the rack on the lathe bed permitting movement of the carriage the full length of the lathe bed.

Precision Lead Screw

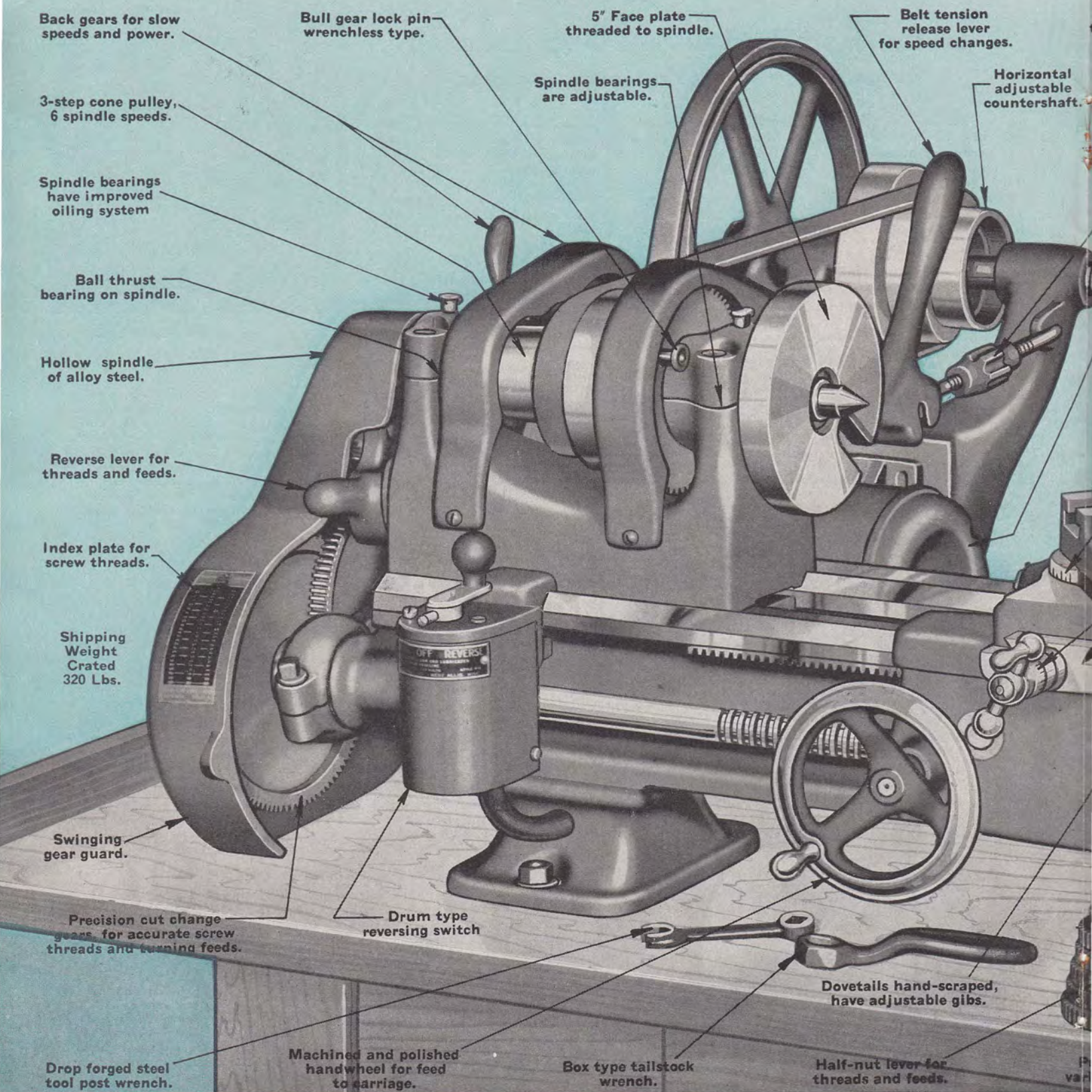
Precision Lead Screw used on the 9-inch "Workshop" Lathe is $\frac{3}{4}$ inch in diameter and has 8 threads per inch, Acme Standard. The lead screws are cut on a special machine equipped with a precision master screw and may be used for the most accurate threading jobs. The threads are tested for accuracy of lead, form and pitch diameter.

New Design Tailstock

Tailstock of the 1937 Model 9-inch "Workshop" Lathe is a new and improved design with long accurately hand-scraped bearing on the lathe bed. Features include $\frac{3}{8}$ " set-over for taper turning, improved spindle lock, No. 2 Morse taper hardened tool steel self-ejecting center, alloy steel spindle ground to fit tailstock barrel, spindle travel 2", cut-away design of tailstock top permitting compound rest to swivel parallel with lathe bed over tailstock base. Witness mark is conveniently located on right end of tailstock for measuring set-over for taper turning.

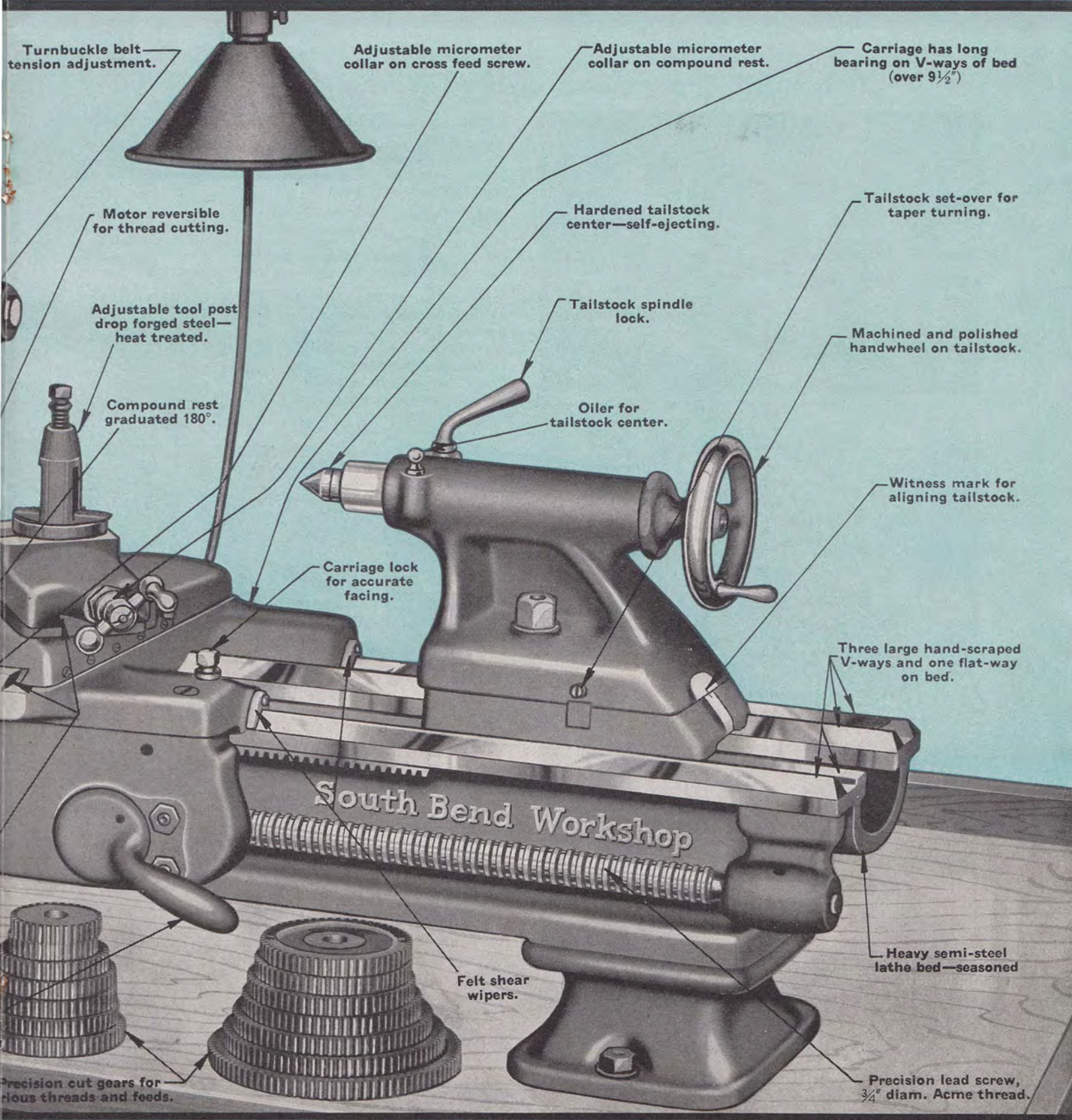
Graduated Tailstock Spindle

Tailstock Spindle Graduated in sixteenths of an inch, can be furnished at extra cost, if desired. The graduated spindle is convenient for measuring depth of hole when drilling with drill chuck held in tailstock. Price extra for Graduated Tailstock Spindle when ordered with lathe \$1.50



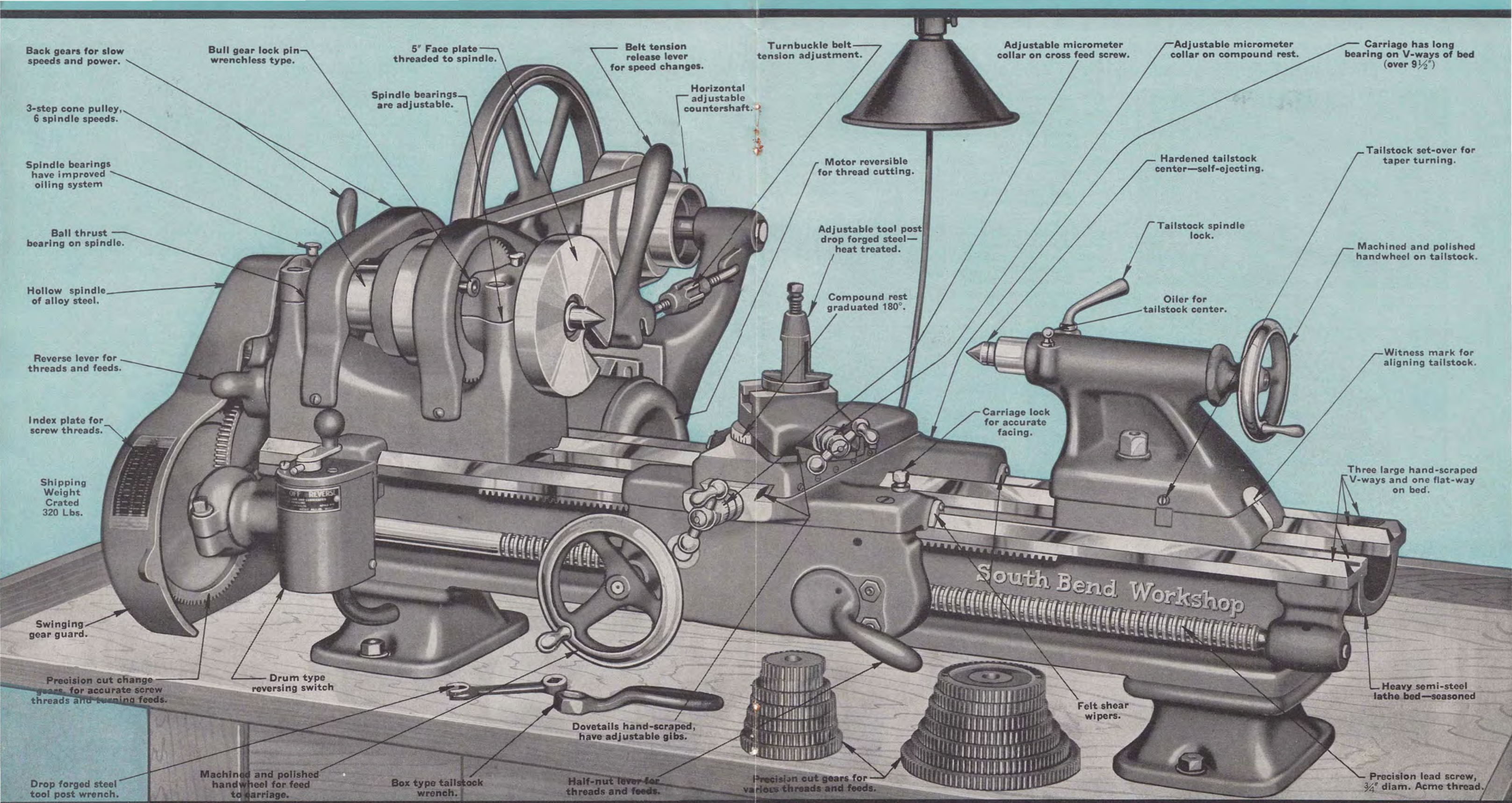
Features of The 1937 Model 9-in

This is an enlarged illustration of the 1937 Model 9-inch "Workshop" South Bend Lathe shown on pages 2 and 3. This Lathe is identical with all lathes shown in this catalog with exception of the type of drive. The features of the lathe shown above will be found on all 1937 Model "Workshop" South Bend Lathes. No die cast parts used.



South Bend "Workshop" Precision Lathe

The illustration shows the 9-inch "Workshop" Lathe with 3-foot bed and adjustable Horizontal Motor Drive—the most popular size and type for general work. The "Workshop" Lathe is also made with 3½ foot, 4 foot and 4½ foot bed and with several other types of drive which are illustrated and priced on the preceding pages.



Features of The 1937 Model 9-inch "Workshop" Precision Lathe

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Industrial Applications of the "Workshop" Lathe



Fig. 33. Cutting a screw thread on a master thread gauge.

Popular for Tool Room and Production Work

The precision accuracy, convenience and ease of operation of the South Bend 9" "Workshop" Lathe have made it one of the most popular small lathes for use in manufacturing plants on both tool room and production work.

The "Workshop" lathe can be equipped with a number of practical attachments for manufacturing and tool room operations, including hand lever bed turret, hand lever and hand wheel type draw-in collet chuck attachments, double tool rest, taper attachment, milling and keyway cutting attachment, etc.

Bulletin No. 88, "South Bend Lathes in Industry", illustrates a number of interesting industrial installations of South Bend Lathes. A copy of this 24 page 6" x 9" booklet will be mailed, postpaid, no charge, on request.



Fig. 34. Taking a heavy roughing cut.

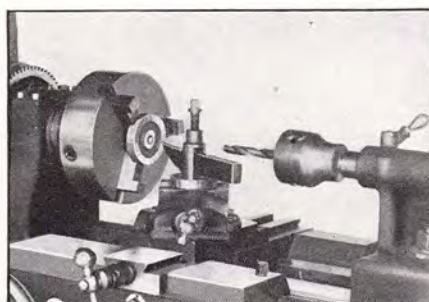


Fig. 35. Drilling and facing a gear blank.

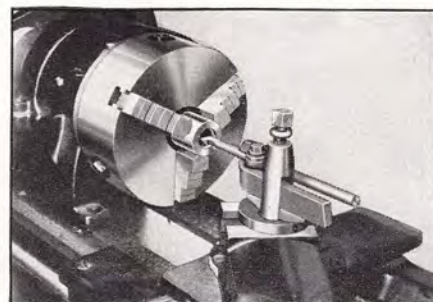


Fig. 36. Boring the hole in a bearing.

Auto Servicing With the "Workshop" Lathe

Does Six Major Auto Service Jobs

The "Workshop" Lathe with a few attachments can be used for truing and undercutting armature commutators, refacing valves, boring rebabbitted connecting rods, finishing semi-machined pistons, making bushings, cutting screw threads and many other classes of repair and maintenance work on automobiles, buses, and trucks.

The cost of the lathe and attachments for auto service work is less than one-half of the cost of single purpose machines for doing the same work, and the floor space required is also less.

A series of bulletins outlining the use of the lathe on various classes of automotive work are illustrated at the right and described on the back page of this catalog. Every auto mechanic should have a full set of these booklets.



Service Books.

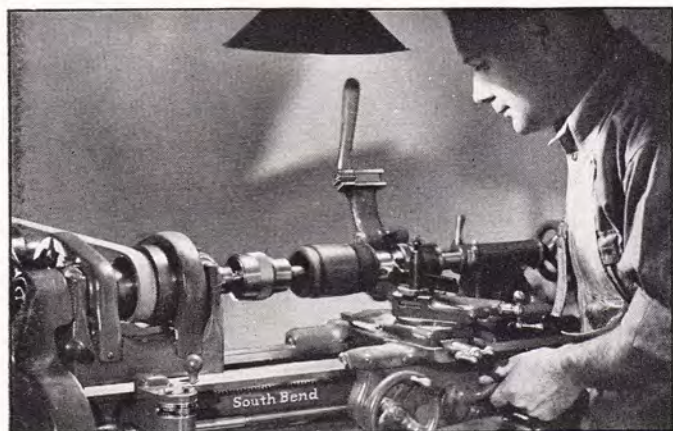


Fig. 37. Truing and undercutting an armature commutator in the 9" "Workshop" Lathe.

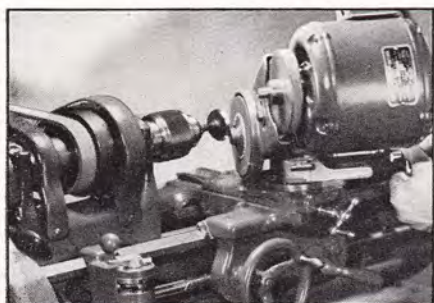


Fig. 38. Refacing a valve in the lathe.

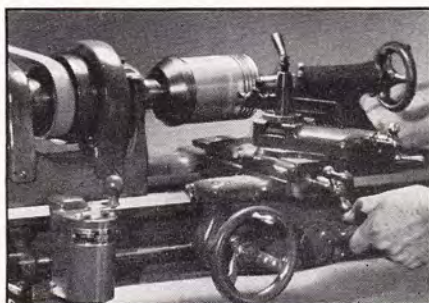


Fig. 39. Finishing a semi-machined piston.

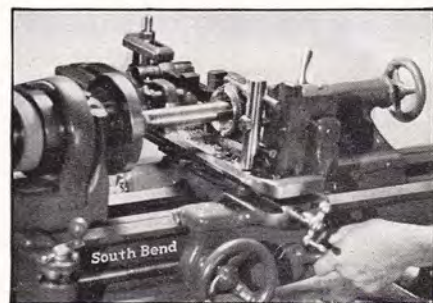


Fig. 40. Boring a rebabbitted connecting rod.

The Homeshop and the "Workshop" Lathe

For Hobby-Invention Development-Research

The 9" "Workshop" South Bend Lathe is the ideal tool for the home shop, the laboratory and any shop desiring an accurate, sturdy, modern back-geared screw cutting precision lathe.

A metal working lathe is the first power driven tool selected by many home shop owners, because with the lathe they are in position to make in their own shop other tools and fixtures needed.



The "Workshop" Lathe can be used for turning, boring, facing, drilling, cutting right and left hand screw threads and other operations on steel, cast iron, brass, aluminum, bronze, wood, fibre, bakelite, cast resin plastics, etc.

Write for Handbook No. 11-W, "The Home Workshop", in which you will find many valuable reference charts and tables, lathe kinks and other helpful information. Price 10c postpaid.

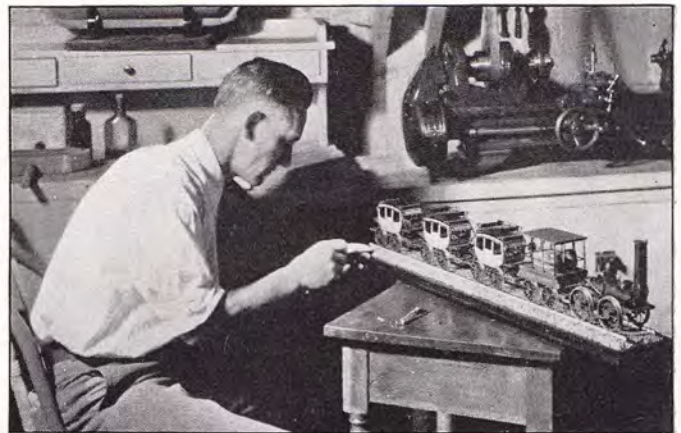


Fig. 41. Ivar Nordstrom, well known model maker, in his home shop.

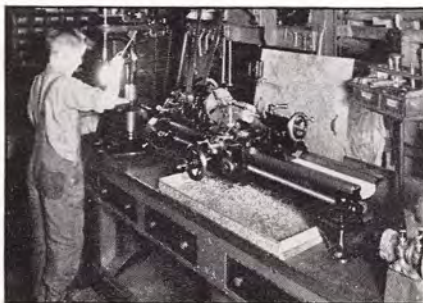


Fig. 42. J. W. Neptune, Akron, Ohio.

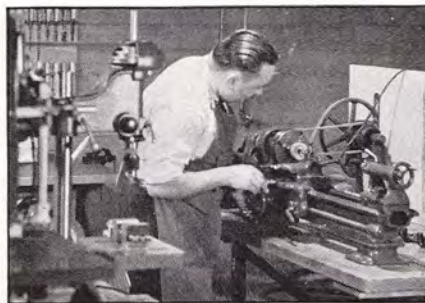


Fig. 43. James Beard, Mishawaka, Ind.



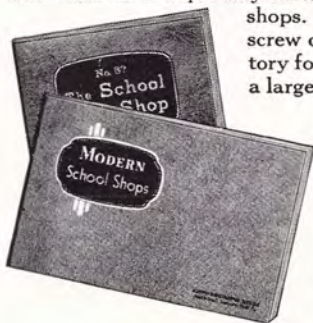
Fig. 44. Holt Condon, Pasadena, Cal.

School Shop Installations of the "Workshop" Lathe

The Most Important Machine Tool

The lathe is the oldest and most important machine tool in industry, and for this reason is the most important tool in school shops.

The "Workshop" lathe is small in size and easy to operate, which makes it especially suitable for use in Junior High School shops. However, it is a real back-geared screw cutting lathe and is just as satisfactory for teaching machine shop practice as a large floor leg machine.



Many interesting installations of South Bend Lathes are shown in Booklet No. 57, "The School Shop", and Booklet No. 55-W, "Modern School Shops". These books will be mailed postpaid no charge on request to any machine shop instructor, supervisor or superintendent.

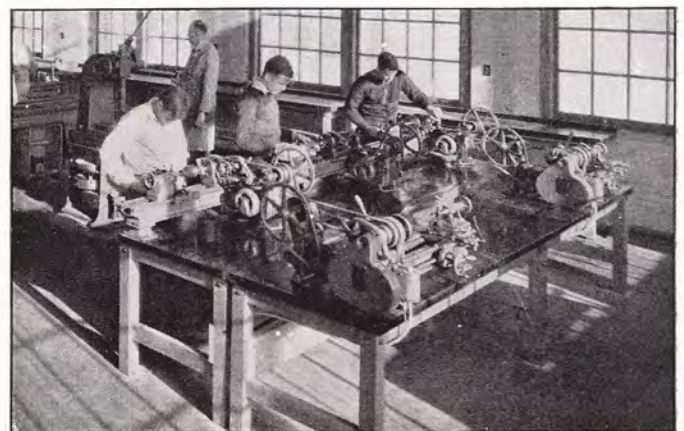


Fig. 45. Four "Workshop" Lathes in the Great Falls, Montana, school shop.



Fig. 46. Industrial Apprentice Shop Equipped with Bench Lathes.



Fig. 47. Lane Technical School, Chicago, Illinois, where 92 South Bend Lathes are used.



Fig. 48. Allentown Junior High Shop, Allentown, Pa.

Attachments for 1937 "Workshop" Lathe

More than 38 practical attachments may be fitted to the 1937 Model 9-inch "Workshop" Lathe for handling special classes of work. With these accessories the lathe is ideal for special machine operations of all kinds in the manufacturing plant, tool room, machine shop, garage, etc. These attachments may be used with any 9-inch "Workshop" Lathe and most of them may be ordered with the lathe or at any time later.

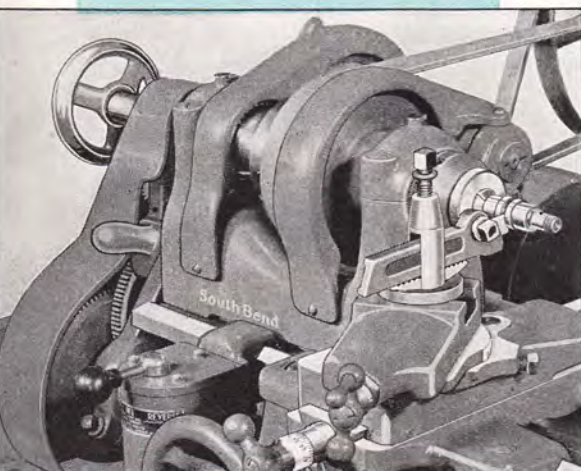


Fig. 51. Machining Small Part Held in Hand Wheel Collet Chuck Attachment.

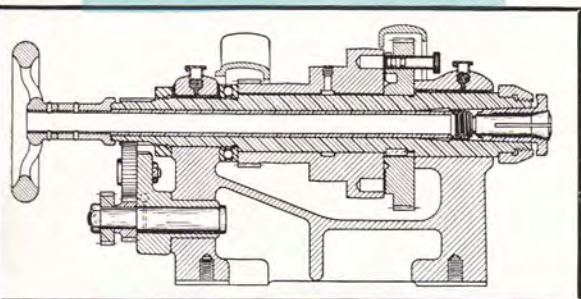


Fig. 52. Cross Section of Headstock Showing Collet Chuck Attachment.



Fig. 53. Cross Section of Collet for 9-inch "Workshop" Precision Lathe.

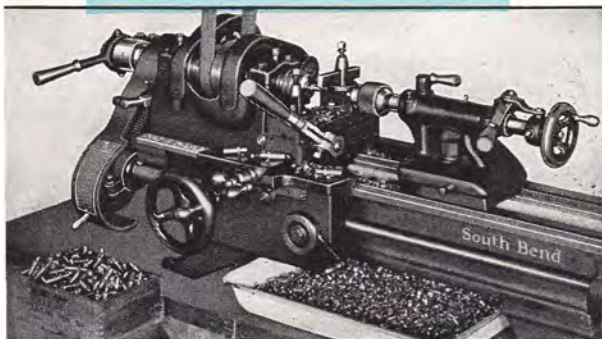


Fig. 54. "Workshop" Lathe equipped with Hand Lever Collet Attachment.

Hand Wheel Type Draw-in Collet Chuck Attachment

The Draw-in Collet Chuck is the most accurate type of chuck made. The draw-bar of the attachment is hollow which permits bars and rods from 1/64" in diameter up to and including 1/2" in diameter to be passed through the spindle of the lathe and held in the collet for machining. The work is gripped in the collet by turning the hand wheel to the right and released by turning it to the left. The lathe spindle must be stopped in order to open or close the collet.

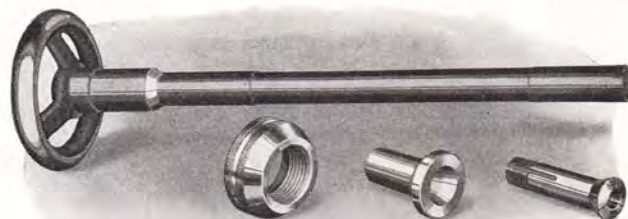


Fig. 55. Hand Wheel Draw-in Collet Chuck Attachment.

Equipment includes hand wheel and hollow draw-bar; spindle nose cap and spanner wrench; tapered closing sleeve made of tool steel, hardened, tempered and ground; and one split collet for round work. When ordering specify hole size of collet wanted.

Cat. No. 4306-W. Code Word "Acru". Shipping weight 4 lbs. Price.....\$25.00

Split Collets for Round Work

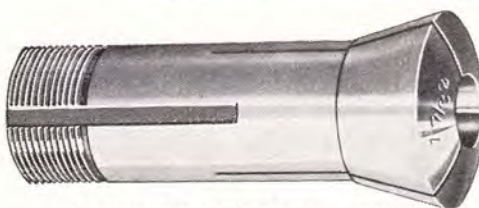


Fig. 56. Split Collet for Round Work.

Collets are made of tool steel hardened and tempered. Both outside and inside surfaces are ground to insure accuracy. The left end of collet is threaded for the hollow draw-bar. The other end of collet is tapered to conform with taper of closing sleeve.

Prices of Collets for square and hexagonal work and with special hole sizes on request. No. 609 1/2. Special collet with 1/8" hole in front end for Jewelers' Plunger Blanks. Code, "Hesol".....\$4.50

Range of Collet Sizes

Collet can be supplied with standard hole sizes up to and including 1/2 inch in diameter in steps of 64ths of an inch.

A standard size collet will hold only work that is within .001" of size specified. A separate collet must be used for each diameter.

Collets for Round Work

Cat. No. 609-W. Collets, 1/8" up to 1/2" cap. "Catra". Wt. 6 oz. Each.....\$4.00
Cat. No. 131-W. Collets smaller than 1/8" cap. "Pytag". Wt. 6 oz. Ea.....\$5.00

Metric Collets

Cat. No. 1150-W. Collets, 1.5 m.m. up to 12.7 m.m. capacity. "Galom". Wt. 6 oz. Each.....\$5.00
Cat. No. 149-W. Collets smaller than 1.5 m.m. capacity. "Nyhot". Wt. 6 oz. Each.....\$6.00

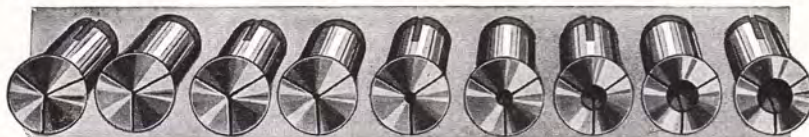
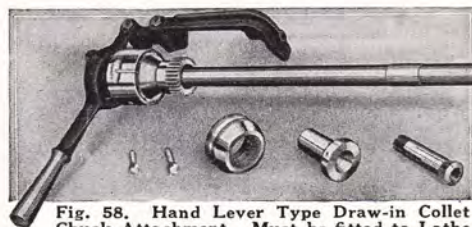


Fig. 57. Collets with Hole Sizes ranging from 1/64" up by Steps of 64ths of an inch.

Hand Lever Type Draw-in Collet Chuck Attachment



This attachment is recommended for rapid production work on small parts. Permits releasing and feeding bar stock through the collet without stopping lathe. Collet can be adjusted to any desired tension. Capacity 1/64" to 1/2". Takes collets listed above.

Cat. No. 5206-W. Code Word, "Abpat". Shipping Wt., 10 lbs. Price with one collet.....\$85.00

Manufacturing Attachments for "Workshop" Lathes

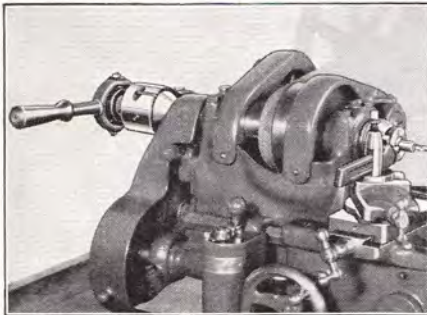


Fig. 59.

Hand Lever Collet Chuck

Collet may be tightened or released without stopping lathe spindle. Maximum collet capacity $\frac{1}{2}$ ". Price includes one collet, extra collets \$4.00 each. See page 16.

Cat. No. 5206-W. "Abpat", Wt. 10 lbs.....\$85.00

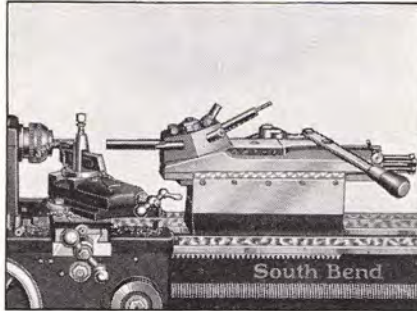


Fig. 60.

Hand Lever Bed Turret

Hexagon turret head has six holes $\frac{5}{8}$ " diam. Indexes automatically on each backward movement of the lever. Has adjustable stops for each turret face.

Cat. No. 1509-W. Turret fitted and bored \$285.00

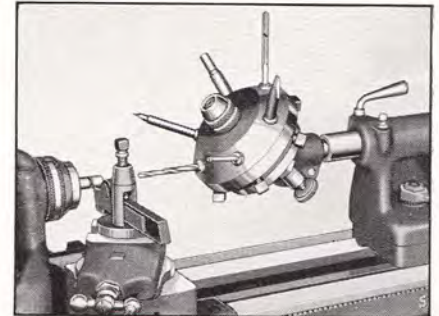


Fig. 61.

Tailstock Turret

Turret has six holes for tools with $\frac{1}{2}$ " shanks. Taper shank for turret fits into taper of tailstock spindle. Turret head is hand indexing and has locating plunger to stop turret head in each position.

Cat. No. 948-W. Tailstock Turret only...\$45.00

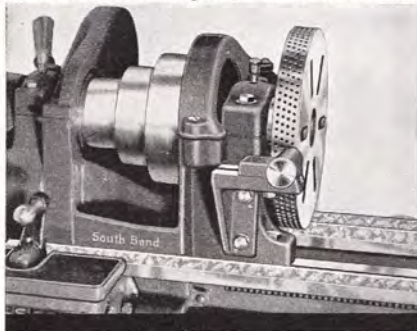


Fig. 62.

Indexing Face Plate

The Indexing face plate is mounted on spindle nose of lathe and has 360 holes for locating and indexing work of all kinds.

Cat. No. 99-W. "Ibaho". Wt. 9 lbs.....\$35.00

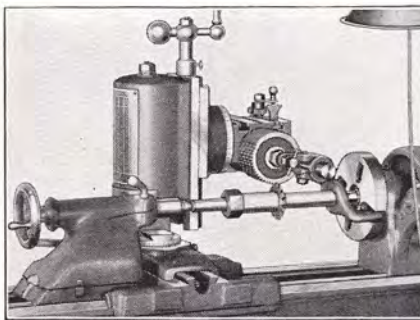


Fig. 63

Gear Cutting Attachment

Has index head for 2 to 360 divisions. Cuts spur and bevel gears up to $4\frac{1}{2}$ " in diameter. Also for graduating, milling, cutting keyways and splines, etc.

Cat. No. 270-W. "Hapno", Fitted\$225.00

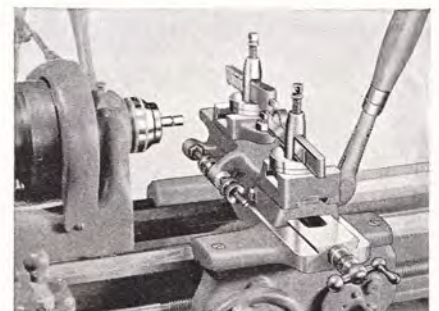


Fig. 64.

Lever Double Tool Slide

Has adjustable stops. Price includes one tool post complete but no tool holder.

Cat. No. 738. Double Tool Slide\$60.00

Cat. No. 958. Double Tool Slide (Like above but operated by feed screw).....\$40.00

All Attachments Shown Above in Figures 59, 60, 61, 62, 63, and 64 Must Be Fitted to Lathe at Factory

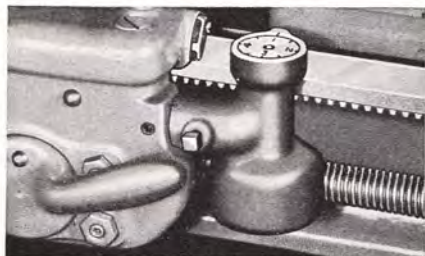


Fig. 77.

Thread Dial Indicator

When cutting screw threads this attachment permits reversing carriage by hand to the starting point of each cut. A graduated dial shows when to clamp half-nuts on lead screw for the next cut.

Cat. No. 810-W. Code Word "Adnok." Shipping weight, 2 lbs. Price each \$6.00



Fig. 78.

Plain Carriage Stop

A practical and inexpensive stop for general facing, turning, boring, etc. Can be used on either side of carriage at any point along the lathe bed. Has clamp with collar screw for locking to lathe bed.

Cat. No. 758-W. Code Word "Tahro." Shipping wt. $1\frac{1}{4}$ lbs. Price each...\$3.00

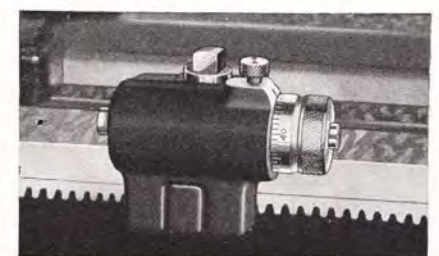


Fig. 79.

Micrometer Carriage Stop

A precision stop with micrometer adjustment for accurate facing, turning, boring, etc. Does not stop carriage automatically. Has hardened stop which may be locked for doing duplicate work.

Cat. No. 968-W. Code Word "Capys." Shipping weight, 2 lbs. Price each \$10.00

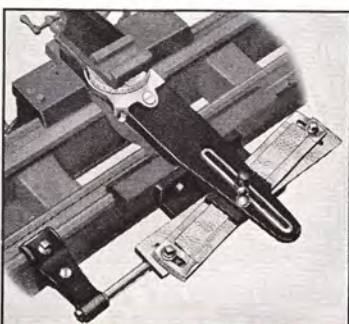


Fig. 75. Taper Attachment on Lathe.

Graduated Taper Attachment

The graduated taper attachment is used for turning and boring all classes of taper work, and is practical for the rapid and accurate production of duplicate tapered parts and pieces. The attachment is bolted to the lathe carriage and can be used at any position along lathe bed. Does not interfere with straight turning. Attachment should be fitted to lathe at factory.

The swivel bar which controls the taper is graduated and can be set for cutting any taper up to 3" per foot and up to 7" in length at one setting; maximum taper in degrees, 14° in either direction.

Cat. No. 428-W. Code, "Hapwo". Wt. 35 lbs. \$55.00

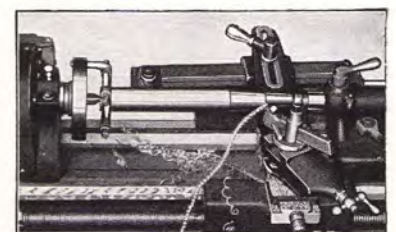


Fig. 76. Turning a Taper on a Shaft Using the Graduated Taper Attachment.

Attachments and Accessories for "Workshop" Lathes

Milling Cutters and Arbors Are Not Included in Price

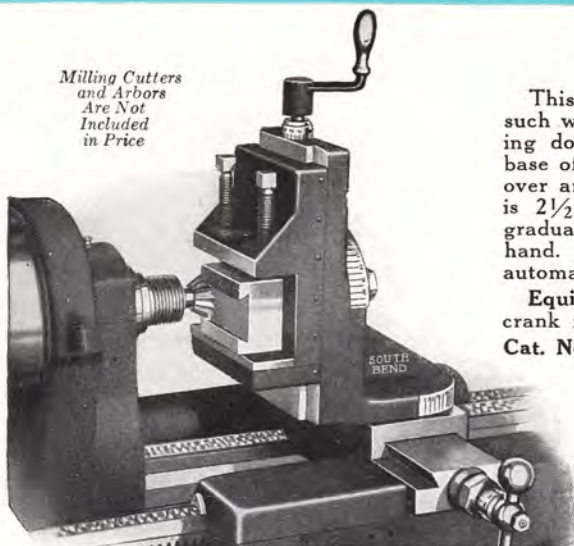


Fig. 70. Milling a Dovetail Using the Milling Attachment.

Milling Attachment

This attachment is practical for the small shop handling such work as cutting keyways, squaring ends of shafts, milling dovetails, etc. Attachment fits on the compound rest base of the lathe and swivels both horizontally and vertically over arcs of 180°. Capacity of vise is 1 3/8". Vertical feed is 2 1/2". The vertical adjusting screw has a micrometer graduated collar. Cross feed is 5 1/2" and is operated by hand. Longitudinal feed can be operated by hand or by automatic feed to carriage. Jaw size 1 3/8"x3".

Equipment includes: Milling attachment, two V-blocks, crank for feed screw and wrench.

Cat. No. 9-W. "Vabif." Ship. Wt. 13 lbs. \$35.00

Milling and Boring Table

The Milling and Boring Table shown in Fig. 72, at right, is practical for light milling, boring, keyway cutting, etc. The table swivels on a post attached to compound rest base and is adjustable for height. Has 3 T-slots for clamping work.

T-slots take 5/8" bolts. Table size 3 1/2"x7 1/2". Maximum distance from table top to center line of lathe 1 3/4". Clamps and bolts not furnished.

Cat. No. 904. Code "Yason." Ship. Wt. 8 lbs. ... \$12.50



Fig. 71. Milling a Keyway in a Shaft.

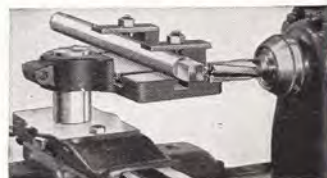


Fig. 72. Milling and Boring Table used to Square End of Shaft.

Milling Cutters and Arbors for Milling Attachment

All Cutters Are High Speed Steel



Plain Milling Cutter

Plain Milling Cutters

Cat. No.	Width	Code	Price
849-A	3/16"	Naber	\$2.60
849-B	1/4"	Nbekt	3.45
849-C	3/8"	Neerl	3.60
849-D	1/2"	Ndixo	3.85
849-E	3/4"	Nedop	4.10
849-F	1"	Nfenz	4.25
849-N	1 1/4"	Ngord	4.70

Cutter diam., 2 1/2"; hole diam. 1".



Side Milling Cutter

Side Milling Cutters

Cat. No.	Width	Code	Price
850-A	1/4"	Oates	\$5.45
850-B	3/8"	Oband	5.75
850-C	1/2"	Ocpis	6.05
850-F	3/4"	Oodate	6.35
850-J	1"	Oehlt	6.70

Cutter diam., 3"; hole diam. 1".



Spiral End Mills

Cat. No.	Diam.	Morse Taper	Code	Price Each
868-B	1/2"	No. 2	Peals	\$4.00
868-J	3/8"	No. 2	Phial	4.10
868-L	1/4"	No. 2	Pinke	4.10
868-F	3/16"	No. 2	Plaid	4.80
868-N	1"	No. 2	Ponds	5.55



Milling Arbor

For Plain and Side Milling Cutters. No. 109-W. Code "Kaecl". \$6.00



Screw Arbor

For Angular Milling Cutters listed below. When ordering specify style number of cutter on which arbor is to be used. No. 829-A. Code "Aboms." Price \$2.50



Collet Chuck

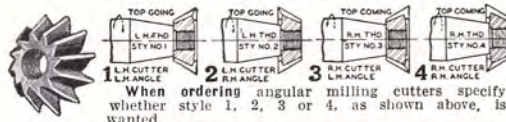
For Woodruff Milling Cutters. No. 101-W. Code "Askeb". \$4.00



Prices Woodruff Milling Cutter

Cat. No.	Diam.	Width Face	Code	Price Each
897-A	1/2"	1 1/2"	Uabed	\$2.35
897-B	1/2"	1 1/2"	Uboas	2.35
897-C	1/2"	1 1/2"	Ucedx	2.35
897-D	1/2"	1 1/2"	Udwin	2.60
897-E	1/2"	1 1/2"	Ueyos	2.60
897-F	1/2"	1 1/2"	Ufent	2.85
897-G	1/2"	1 1/2"	Ugers	2.85
897-H	1/2"	1 1/2"	Uhomi	3.20
897-I	1/2"	1 1/2"	Uitoo	3.20
897-J	1/2"	1 1/2"	Ujbis	3.35

Angular Milling Cutters



Cat. No.	Cutter Diam.	Thickness of Cutter	Hole in Cutter	Threads Per Inch	Code	Price Each
667	1 1/4 in.	3/16 in.	3/8 in.	24 NF	Bathe	\$4.55

High Speed Pulleys and Wood Turning Accessories

Two-Step Pulleys for Countershaft and Motor

Twelve spindle speeds ranging from 40 to 1200 R.P.M. can be obtained by using the 2-step pulleys illustrated at left on the motor and countershaft of Motor Drive "Workshop" Lathes.

The "Workshop" Lathe equipped with these pulleys has the high spindle speeds practical for machining aluminum, brass, cast resin plastics, wood turning, etc. The standard spindle speeds are also available. The carriage with power feeds, graduated compound rest, and tool post make the "Workshop" Lathe especially suitable for pattern making and exacting wood working jobs.



Fig. 73. Two-Step Pulleys for Countershaft and Motor.

Since high spindle speeds require more power than normal speeds, a 1/4 H.P. motor should not be used with the double pulleys. For high speed work a 1/2 H.P. motor (condenser type or instant reversing type) should be used. A 1/2 H.P. motor (condenser type or instant reversing type) is preferable if lathe is to be used exclusively for high speed work. See page 22 for motor prices.

Two-Step Pulleys for Countershaft and Motor

Description	Ship. Weight Lbs.	When Ordered in Lieu of Regular Countershaft Pulley and Motor Pulley			When Ordered as Separate Equipment		
		Cat. No.	Code	Price	Cat. No.	Code	Price
Pulley for Countershaft	12	426	Agbun	\$3.00	427	Agdin	\$4.00
Pulley for Motor	2 1/2	159	Agfip	2.50	159	Agfip	2.50



Fig. 74

Hand Rest for Wood Turning

The hand rest for wood turning shown at the left consists of a base and two T-rests 4" and 12" long. Made of cast iron. Fits on compound rest of lathe.

No. 896-W. Code, "Adows". \$5.00 (Shipping weight 6 lbs.)



No. 731-W, "Kalaf" \$2.50 (Ship. wt. 1 1/4 lbs.)



No. 733-W, "Jalak" \$2.00 (Shipping weight 12 oz.)



No. 732-W, "Ikodol" \$2.75 (Shipping weight 13 oz.)



Fig. 75. 9-inch "Workshop" Lathe with Double Pulleys for Wide Range of Spindle Speeds.

Attachments and Accessories for "Workshop" Lathes

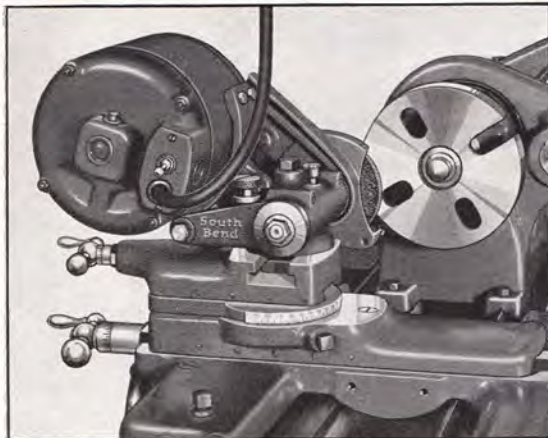


Fig. 76. Electric Grinder Mounted on Compound Rest of 9-inch "Workshop" Lathe.

Electric Grinder for Lathe

The Electric Grinder is a valuable addition to the lathe in any shop that is not equipped with a modern tool room grinder. The grinder fits on the compound rest, operates from a lamp socket and is practical for grinding reamers, lathe centers, milling cutters, taps, dies, valves, pistons, bushings, hardened and tempered tools, parts, etc., but is not intended for grinding lathe tool bits, drills, etc. Will grind work $5\frac{1}{4}$ " in diameter.

Price includes $1\frac{1}{3}$ H.P. Motor, 1725 R.P.M. (1-phase, 60-cycle, 110-volt, A.C.) V-belt, belt guard, one $4" \times \frac{1}{2}"$ Alundum grinding wheel (grain 46-N, grade 5-B), extension cord, switch and clamp for mounting. When ordering specify voltage and current required.

Cat. No. 85-W. Code, "Raben". Ship. wt. 55 lbs. \$45.00

If D.C. Motor is wanted, add \$15.25 to price above. For 3-phase Motor add \$13.25.



Fig. 77.

Diamond Holding Fixture

Clamps to tail-spindle. Holds No. 406 Diamond Dresser. No. 91-W. "Kibaf." Wt. $1\frac{1}{2}$ lbs. \$3.00 No. 406. Diamond Dresser. "Kirwe." Price.....\$6.00

Fine Thread Cutting Attachment

For Threads 44 to 80 Per Inch and for Fine Feeds

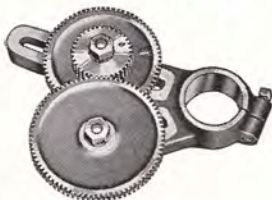


Fig. 80. Attachment for Fine Threads and Feeds.

The Fine Thread Cutting Attachment permits compounding the gears furnished with the lathe for cutting additional fine pitch screw threads from 44 to 80 per inch as shown on the chart and for extra fine turning feeds .0014" to .005" per revolution of spindle. For additional fine screw threads and fine feeds we can supply the necessary change gears at extra cost.

Equipment includes a double arm bracket, one 1 to 2 compound gear (36 teeth—72 teeth) one 80-tooth intermediate gear, thread chart, bushings, bolts, nuts.

Cat. No. 1565-W. Attachment when ordered with lathe and fitted to lathe at factory. "Bezso"\$8.00†

Cat. No. 1670-W. Attachment, when ordered after lathe is shipped and fitted to lathe by customer. "Atary." Ship. wt. 6 lbs. \$10.00

†NOTE: When the Fine Thread Cutting Attachment or the Metric Transposing Gear Attachment is ordered with the lathe a double arm gear bracket is supplied and the single arm gear bracket regularly furnished with lathe is omitted as it is not required.

SPECIAL FINE THREADS				
THREADS TO CUT	STUD GEAR	COMPOUND GEAR	SCREW GEAR	
44	16	1-2	44	
46	16	1-2	46	
48	16	1-2	48	
52	16	1-2	52	
54	16	1-2	54	
56	16	1-2	56	
60	16	1-2	60	
64	16	1-2	64	
72	16	1-2	72	
80	16	1-2	80	

Metric Transposing Gear Attachment

For Metric Screw Threads from .5 m/m to 8.0 m/m

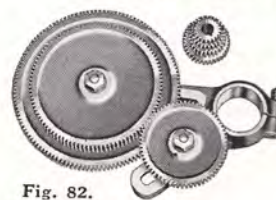


Fig. 82. Metric Transposing Gear Attach.

2.5, 3., 3.5, 4., 4.5, 5., 5.5, 6., 6.5, 7., 7.5. See thread cutting chart shown at right.

Equipment includes double arm bracket, bushings, bolts, nuts, gear guard and bracket, 7 gears and thread chart.

Cat. No. 1550. Attachment when ordered with lathe, and fitted to lathe at factory. Code, "Bydof"\$15.00†

Cat. No. 1640. Attachment, when ordered after lathe is shipped and fitted to lathe by the customer. "Tytar." Ship. wt. 32 lbs. \$18.00

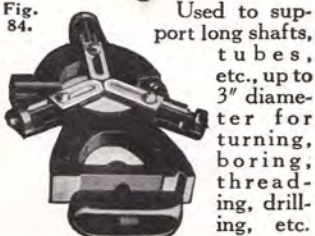
The metric transposing gear attachment shown at left equips the 9" "Workshop" Lathe for cutting the following international standard and metric screw threads:

METRIC THREAD CUTTING CHART				
FOR 9" WORKSHOP LATHE				
MM PITCH	STUD GEAR	COMPOUND GEAR	SCREW GEAR	
.5	16	127-100	80	
.75	24	127-100	80	
1.	32	127-100	80	
1.25	40	127-100	80	
1.5	24	127-100	40	
1.75	24	127-100	40	
2.	32	127-100	40	
2.5	32	127-100	32	
3.	40	127-100	40	
3.5	28	127-100	20	
4.	32	127-100	20	
4.5	36	127-100	20	
5.	40	127-100	20	
5.5	44	127-100	20	
6.	48	127-100	20	
6.5	52	127-100	20	
7.	56	127-100	20	
7.5	60	127-100	20	

Fig. 83. Metric Thread Cutting Chart.

Center Rest

Fig. 84.



Used to support long shafts, tubes, etc., up to 3" diameter for turning, boring, threading, drilling, etc.

Cat. No. 125-W. Code Word, "Cegke." Wt. 10 lbs. \$6.00*

*Price when ordered for Raising Block Lathe Cat. No. 905. "Clane" \$8.00

Follower Rest



Fig. 85. Follower Rest.

The Follower Rest is used when machining long slender work up to 2" diameter. It fastens to the saddle and travels with the cutting tool. Should be fitted to lathe at factory.

Cat. No. 34-W. Code Word, "Cegmo." Wt. 4 lbs. \$4.00*

*Price when ordered for Raising Block Lathe. Cat. No. 938. "Bezok" \$5.00

Adjustable Thread Cutting Stop



Fig. 86. Thread Cutting Stop.

Used when cutting screw threads for regulating depth of each chip that is cut. The attachment fits on the cross slide dovetail of the lathe. Can be adjusted and locked at any point on cross slide. See application below.

Cat. No. 67-W. Code Word, "Cegpy." Wt. 8 oz. \$2.50

Large Face Plate



Fig. 87. Large Face Plate.

The Large Face Plate is $7\frac{3}{8}$ " in diameter and is accurately threaded to fit the spindle nose of the lathe. Is equipped with six slots for clamping work. See view below.

Cat. No. 40-W. Code Word, "Cehak." Weight, 6 lbs. \$6.00



Fig. 88. Turning Long Work in the Center Rest.



Fig. 89. Using Follower Rest on a Threading Job.

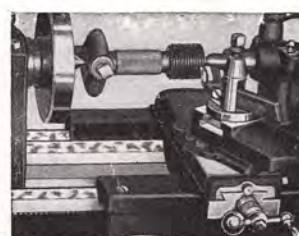


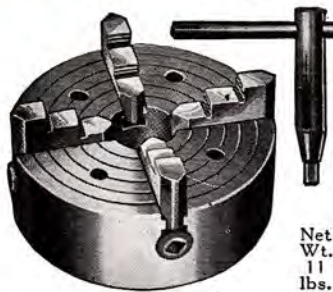
Fig. 90. Application of the Adjustable Thread Cutting Stop.



Fig. 91. Boring Work Clamped to Large Face Plate.

Lathe Chucks and Drill Chucks for "Workshop" Lathes

4-Jaw Independent Lathe Chuck



Medium Duty

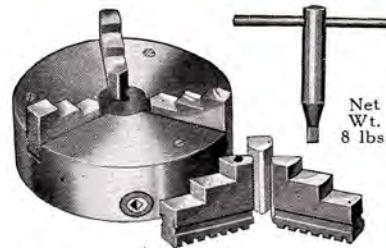
A good, substantial, accurate chuck for machining metals of all kinds. Has four reversible independent jaws with individual screw adjustment for chucking round or irregular work in a concentric or eccentric position. Width of jaws, $\frac{1}{2}$ ". Hole through chuck, $1\frac{1}{8}$ " in diam. Chuck body is a ground semi-steel casting. Face is accurately graduated. Screws are hardened alloy steel.

Net Wt. 11 lbs.

Price and Weight include: Wrench and cap screws for fitting chuck-back to chuck, but do not include chuck-back or fitting of chuck to lathe. For these fitting charges see prices below. Cat. No. 4806. Chuck. 6-inch Capacity. (Not fitted to lathe.) Shipping weight $11\frac{1}{2}$ lbs. Code Word, "Rapno".....\$18.00†

The Medium Duty Chucks shown above are good quality chucks, recommended for chucking all classes of small metal work requiring accurate machining.

3-Jaw Universal Lathe Chuck



Medium Duty

A good, substantial, accurate chuck for machining metals of all kinds. Chuck is self-centering and holds round or hexagonal work. Has two sets of jaws, one set for outside chucking, the other for inside chucking. Width of jaws, $\frac{1}{2}$ ". Hole through chuck, $1\frac{1}{8}$ " in diam. Chuck body is a ground semi-steel casting. The scroll is of high grade steel; it is balanced and accurate. Bevel pinion is hardened alloy steel.

Net Wt. 8 lbs.

Price and Weight include: Wrench and cap screws for fitting chuck-back to chuck, but do not include chuck-back or fitting of chuck to lathe. For these fitting charges see prices below.

Cat. No. 3805. Chuck. 5-inch Capacity. (Not fitted to lathe.) Shipping weight $8\frac{1}{2}$ lbs. Code Word, "Rasep".....\$20.00†



Net Wt. $8\frac{1}{4}$ lbs.

4-Jaw Independent Lathe Chuck

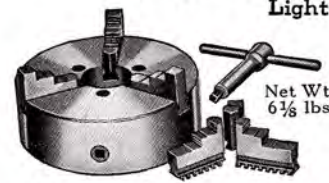
Light Duty

A low priced, light duty chuck. Width of jaws, $\frac{1}{2}$ ". Hole through chuck, $1\frac{1}{8}$ " diam. Has four reversible jaws, wrench and screws for chuck-back. See fitting charges below. Cat. No. 4906. Chuck. 6-inch Capacity. (Not fitted to lathe.) Code Word "Abhod." Shipping weight 9 lbs.....\$10.00†

The Light Duty Chucks shown above are both low priced chucks and are usually selected by those who have very little metal chucking work to do. They are more satisfactory for wood work.

3-Jaw Universal Lathe Chuck

Light Duty



Net Wt. $6\frac{1}{2}$ lbs.

A low priced, light duty self-centering chuck. Width of jaws, $\frac{1}{2}$ ". Hole through chuck, $1\frac{1}{8}$ " diam. Has wrench, two sets of jaws, and screws for chuck-back. See fitting charges below.

Cat. No. 3905. Chuck. 5-inch Cap. (Not fitted to lathe.) Code "Abhix." Ship. Wt. $6\frac{1}{2}$ lbs.....\$13.00†

Lathe Chucks Should Be Fitted to the Lathe at Factory

Prices of all lathe chucks shown on this page include the chuck complete as listed but do not include fitting of chuck to lathe. We recommend that all chucks be fitted to lathe at factory. Fitting charges are shown at the right.

†Prices for Fitting Lathe Chucks to Lathe



Semi-Machined Chuck-Back



Recess in Chuck for Chuck-Back



Chuck with Chuck-Back Attached

No. 126-W. Semi-Machined Chuck-Back, "Acmin." Ship Wt. 5 lbs. \$3.00
No. 236-W. Fitting Chuck-Back to Chuck and to Lathe. "Acmap". 2.00
No. 258-W. Total Price for Chuck-Back and Fitting. "Acors"..... 5.00

Applying to Chucks Listed Above

A chuck-back is needed to fit 4-Jaw Independent Chucks and 3-Jaw Universal Chucks to the lathe. The chuck-back is first bored and threaded to fit lathe spindle nose; next it is mounted on spindle nose, faced and turned to fit recess in back of chuck and bolted in place. We recommend that chucks be fitted to lathe at factory. When ordering a chuck-back without chuck, specify serial number of lathe and diameter of chuck-back required.

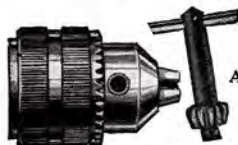


JACOBS

3-Jaw Drill Chuck

An accurate, powerful and accurate drill chuck. Jaws are of tempered steel. Prices and weights include pinion key, but not arbor.

Cat. No.	Capacity Inches	Net Wt. lbs.	Ship. lbs.	Code Word	Price
1200	0 to $\frac{3}{8}$	1 $\frac{1}{2}$	1 $\frac{1}{2}$	Cleve	\$4.50
1201	0 to $\frac{1}{2}$	1 $\frac{3}{4}$	2 $\frac{3}{4}$	Wauko	6.50
1202	$\frac{3}{8}$ to $\frac{3}{4}$	3 $\frac{1}{2}$	3 $\frac{1}{2}$	Falco	9.50



ALMOND

3-Jaw Drill Chuck

An accurate chuck for general drilling in the lathe. Jaws are of tempered steel. Prices and weights include pinion key but not arbor.

Cat. No.	Capacity Inches	Net Wt. lbs.	Ship. lbs.	Code Word	Price
219	0 to $\frac{3}{8}$	1 $\frac{1}{2}$	1 $\frac{1}{2}$	Acpen	\$3.85
220	0 to $\frac{1}{2}$	1 $\frac{3}{4}$	2 $\frac{3}{4}$	Acpiip	5.25
327	$\frac{1}{2}$ to $\frac{3}{4}$	3 $\frac{1}{2}$	3 $\frac{1}{2}$	Rulid	7.50



Headstock Spindle Chuck

Chuck screws on spindle nose of lathe. Has hollow body for holding small rods, bar work, and automobile valves for refacing. Can also be used in tailstock of lathe when fitted with arbor at right.

Cat. No. 907-W. $\frac{1}{4}$ " to $\frac{5}{8}$ " Capacity. Chuck. Net Wt. $3\frac{1}{4}$ lbs. Ship. Wt. $3\frac{3}{4}$ lbs. Code, "Robal".....\$10.00



Solid Arbor for Drill Chucks

The arbor is used for fitting three-jaw drill chucks shown at left, to the lathe spindle. When information on the size and make of drill chuck is not given a semi-finished arbor which is fitted to lathe spindle but not to drill chuck is supplied.

No. 709-W. Arbor, No. 2 Morse Taper. Code, "Achuk." Shipping Wt. $\frac{3}{4}$ lb...\$1.00

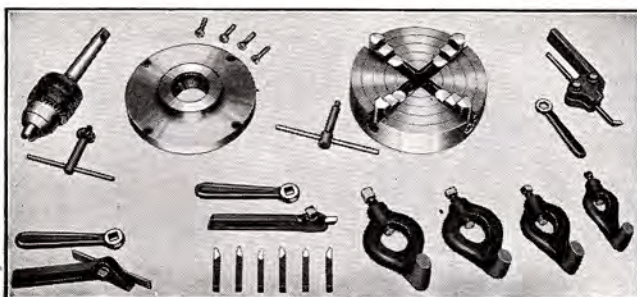


Fig. 92. No. 105-W Chuck and Tool Assortment for 9-inch "Workshop" South Bend Lathes.

No. 105-W Chuck and Tool Assortment \$39.25

We recommend the chucks and tools shown in the assortment at left and listed below for use on the "Workshop" Lathe. This is the basic equipment required in the average shop for handling general machine jobs, such as turning, boring, drilling, cutting-off, chucking, etc.

Cat. No.	Description	Price
No. 4806	6-inch Medium Duty 4-Jaw Independent Lathe Chuck.....	\$18.00
No. 258-W	Fitting above Chuck to Lathe including Chuck-back.....	5.00
No. 220	$\frac{1}{2}$ -inch 3-Jaw Drill Chuck.....	5.25
No. 709-W	Solid Arbor Fitted to above Drill Chuck.....	1.00
No. 847-S	Straight Shank Tool Holder with $\frac{1}{4}$ " Cutter Bit, Unground.....	1.25
No. 291	Six $\frac{1}{4}$ -inch High Speed Steel Cutter Bits, Ground.....	1.65
No. 505-F	Boring Tool Holder, Style "D," with $\frac{1}{4}$ -inch Boring Bar.....	3.00
No. 833-R	Cutting-off Tool Holder, Right Hand, with ground cutter.....	1.50
No. 178	4 Standard Malleable Lathe Dogs, $\frac{1}{2}$ ", $\frac{3}{4}$ ", 1 ", $1\frac{1}{4}$ " Cap.....	2.60

No. 105-W Chuck and Tool Assortment. Code "Axtro." Ship. Wt. 17 lbs. \$39.25

Tool Holders, Cutter Bits and Accessories

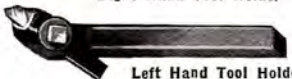
Lathe Tool Holders



Straight Tool Holder



Right Hand Tool Holder



Left Hand Tool Holder

Tool Holders—Forged Steel

Drop forged steel, heat treated and hardened lathe tool holders. Supplied in three styles: straight, right-hand and left-hand as illustrated above. Shank is $\frac{3}{8}$ " x $\frac{1}{4}$ " and takes $\frac{1}{4}$ " square cutter bit. Price includes wrench and one high speed steel cutter bit, hardened but not ground. Shipping weight 1 lb.

Cat. No. 847-S. Straight Tool Holder "Acump".....\$1.25
Cat. No. 847-R. Right-Hand Tool Holder "Acurt" 1.25
Cat. No. 847-L. Left-Hand Tool Holder "Acvet".... 1.25

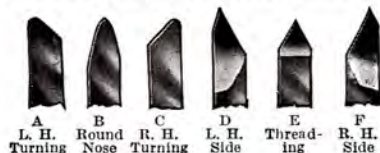
Tool Holder and Cutter Bit Set

Set consists of tool holder (choice of straight, right-hand or left-hand) with one unground H.S. Steel Cutter Bit and a set of 6 H.S. Steel Cutter Bits ground to forms A to F shown above. Ship. wt. 1 $\frac{1}{2}$ lbs.



Cat. No. 323-A. Code "Actit". Price per Set.....\$2.90

Ground High Speed Steel Cutter Bits



A. L. H. Round Turning B. Round Nose Turning C. R. H. Round Turning D. L. H. Side Threading E. R. H. Side Threading F. R. H. Side Threading

Made of good quality high speed steel, heat treated, hardened and ground to the forms shown and are ready to use. Size $\frac{1}{4}$ " x $\frac{1}{4}$ " for use with tool holders listed above. When ordering ground cutter bits, specify Catalog number and form wanted.

One ground high speed steel cutter bit (choice of any of the forms A to F as shown above). Ship. wt. 2 oz.
Cat. No. 1355. Code "Adwap". Price each \$0.30

Set of 6 ground high speed steel cutter bits (forms A to F as shown above). Ship. wt. 10 oz.
Cat. No. 291. Code "Adwos". Price\$1.65

Cutter Bits—Not Ground



HIGH SPEED STEEL CUTTER BITS.

Made of good quality high speed steel, heat treated and hardened but not ground. Size $\frac{1}{4}$ " x $\frac{1}{4}$ " x 2" for use with tool holders listed above.

One unground high speed cutter bit, Ship. wt. 2 oz.
Cat. No. 1460. Code "Adwir". Price each\$0.17
Set of 6 unground cutter bits, Ship. wt. 10 oz.

Cat. No. 1629. Code "Cixas". Price per Set\$0.90

"CIRCLE C" CUTTER BITS.

Same as above but better quality high speed steel.
Cat. No. 1551-W. Code "Gafid". Price each.....\$0.30

STELLITE CUTTER BITS.

Very hard. For machining chilled cast-iron, hard bronze, tough steel and for turning abrasive materials such as rubber, fibre, etc. Also for high speed work. May be operated red hot without damage.

Cat. No. 1920-W. Code "Gafez". Price each\$0.75



Style "C" Boring Tool

Made of drop-forged steel. Price includes holder, wrench, $\frac{1}{4}$ " boring bar, and H. S. cutter. Ship. wt. 1 $\frac{1}{4}$ lbs.
No. 486. Code "Ipcen" \$3.00



Style "D" Boring Tool

Made of drop-forged steel. Price includes holder, wrench, $\frac{1}{4}$ " boring bar. Wt. 1 $\frac{1}{4}$ lbs.
No. 505-F. "Adyot"\$3.00



Extra Boring Bars

For use with style D and C boring tools listed on this page. High speed steel tip welded on to carbon steel shank.

Cat. No.	Bar Inches	Code Word	Price Each
3856-A	$\frac{1}{4}$ x 5	Bebis	\$0.50
3856-B	$\frac{3}{8}$ x 6	Beboy	.60
3856-C	$\frac{3}{8}$ x 7	Bedit	.80
3856-D	$\frac{1}{2}$ x 8	Bedok	1.10



Sleeve Boring Bars:

(Wt. 1 lb.)
No. 344. $\frac{1}{2}$ ". "Bewem" \$3.00



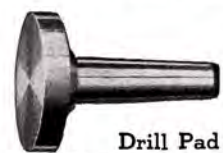
Head Spindle Center

Made of tool steel, ground. Ship. Wt. 8 oz.
No. 725-W. "Adgud" \$2.00



Crotch Center

Used in tail spindle. Centers round work for drilling. Shipping wt. 10 oz.
No. 728-W. "Fanid" \$2.50



Drill Pad

Used in tail spindle. Supports flat work for drilling. Shipping wt. 1 $\frac{1}{4}$ lbs.
No. 727-W. "Donav" \$2.00



Cutting-Off Tool

Made of drop-forged steel. Price includes holder, wrench, H.S. cutter, ground. Wt. 1 lb.
No. 833-S. "Adcat"\$1.50
Extra Cutter, No. 819, "Adsop". Ship. wt. 3 oz. .50



Knurling Tool Holder

Made of drop-forged steel. Price includes holder and set of knurls. Wt. 1 $\frac{1}{4}$ lbs.
No. 820. Code, "Domta" \$3.00
No. 817. Knurls (Pair) "Digmo". Ship. wt. 1 oz.\$1.00



Heavy Duty Boring and Turning Tool

This is a very rigid combination tool for boring, turning and facing operations. Holder takes bars from $\frac{3}{8}$ " up to $\frac{1}{4}$ " in diameter.
Cat. No. 469-W. Code "Cajax". Tool Complete with $\frac{3}{8}$ " x 14" bar\$10.00



R. H. Cutting-Off Tool

Made of drop-forged steel. Price includes holder, wrench, H.S. cutter, ground. Wt. 1 lb.
No. 833-R. "Cemso"\$1.50
Extra Cutter, No. 819, "Adsop". Ship. wt. 3 oz. .50



Threading Tool Holder

Made of drop-forged steel. Price includes holder, wrench and formed H.S. single point cutter (V.U.S.S., or Whitworth). Specify pitch or threads per inch required. Shipping wt. 1 lb.
No. 845. Code "Adfob" \$2.50
Extra Cutter, No. 814. "Adurp". Ship. wt. 3 oz.\$1.50



Standard Lathe Dog

Made of heavy malleable iron, designed for strength and service. Ship. wt. 1 lb.
 $\frac{3}{8}$ " cap. No. 1-MJ. "Kamuk" \$0.45
 $\frac{1}{2}$ " cap. No. 2-MJ. "Kamad" .50
 $\frac{3}{4}$ " cap. No. 4-MJ. "Kaneh" .60
1" cap. No. 6-MJ. "Kanil" .70
 $\frac{1}{4}$ " cap. No. 8-MJ. "Kana" .80
 $\frac{1}{2}$ " cap. No. 10-MJ. "Kanux" .95



Clamp Lathe Dog

Made of heavy drop forged steel, carefully machined and hardened. Practical for holding round, hexagonal or rectangular work. Each lathe dog is boxed separately.

Cat. No.	Cap. In.	Ship. Wt.	Code Word	Price
160	$\frac{1}{4}$ "	1 lb.	Xsxpj	\$2.25
161	$\frac{1}{2}$ "	$\frac{1}{4}$ lbs.	Xtyqj	3.00



Center Gauge for testing lathe centers and setting threading tool.
No. 650. "Xutje". wt. 3 oz. .50

Hand Forged Lathe Tool

These tools are properly forged to shape, tempered and ground and are ready for use. If ordering less than one complete set, be sure to state both Shape No. and Catalog No.

1. L. H. Side Tool
2. R. H. Side Tool
3. R. H. Bent Tool
4. R. H. Diamond Point
5. L. H. Diamond Point
6. Round Nose Tool
7. Cutting-Off Tool
8. Threading Tool
9. Bent Threading Tool
10. Roughing Tool
11. Boring Tool
12. Inside Threading Tool

Cat. No. 437-CW. Carbon Tool Steel Forged Lathe Tool. Price, each.....\$0.60
Cat. No. 269-CW. Set of Twelve Forged Lathe Tools. Price per Set..... 6.75



Motors and Switches for 9-inch "Workshop" Lathes



Fig. 93. Start-and-Stop Type Reversing Motor.

Prices of 9-inch "Workshop" motor drive lathes shown in this catalog include $\frac{1}{4}$ h.p. start-stop reversing, split-phase motor 1275 R.P.M. for 1-phase 60 cycle alternating current, 110-volt.

If lathes are wanted with motors of other specifications in lieu of motor regularly supplied with lathe, add to the price of the lathe the amount shown in the tabulation below. Motors which we supply are of Westinghouse, General Electric, or equal make.

$\frac{1}{8}$ H.P. or $\frac{1}{2}$ H.P. Motors (condenser type or instant reversing type) should be used for operating the "Workshop" lathe, (1) when greater power is required, (2) when countershaft and motor are fitted with 2-step drive pulleys (see page 18), for operating the lathe at high speeds. (3) when motor pulley larger than standard diameter is to be used for obtaining spindle speeds higher than standard.

$\frac{1}{8}$ H.P. and $\frac{1}{2}$ H.P. Split Phase Start-Stop Reversing Motors for "Workshop" Lathes may be used in localities where "high starting amperage"

motors are permitted by power companies, but should not be used when lathe is equipped for high speeds.

Condenser Type Start-Stop Reversing Motors for Single Phase A.C. are recommended for driving the 9-inch "Workshop" Lathe. The electric current consumed in starting the condenser type motor is lower than in starting the ordinary split-phase motor and the starting torque is higher. These features improve the efficiency of motor, resulting in better operation of lathe.

Instant Reversing Motors may be reversed instantly by throwing the reversing switch from forward to reverse. These motors are recommended for use with the 9-inch "Workshop" Lathe whenever a considerable amount of thread cutting is to be done on the lathe. The instant reversing motor is also preferable when heavy work is done continuously and when frequent starting and stopping of the lathe is required. This motor meets every requirement for starting torque, low power consumption, high efficiency and quiet operation.

Extra Charges for Special Motors with 9-inch "Workshop" Lathe in Lieu of Standard Motors

Add Amount Shown in Tabulation Below to Regular Price of Lathe to Obtain Price of Lathe with Special Motor Equipment in Lieu of the Standard $\frac{1}{4}$ H.P. Start-Stop Type Reversing 1-ph., 60 cy., 110-V. Motor.

Specifications of A. C. Motors				SINGLE PHASE A. C. MOTORS				THREE PHASE A. C. MOTORS		D. C. INSTANT REVERSING MOTORS WITH No. 791 DRUM REV. SWITCH				
Size of Motor H.P.	Speed of Motor R.P.M.	Voltage	Cycle	Split Phase Type Start-Stop Reversing Motor with No. 789 Drum Reversing Switch	Condenser Type Start-Stop Reversing Motor with No. 789 Drum Reversing Switch	Instant Reversing Repulsion Induction Motor with No. 791 Drum Reversing Switch		Instant Reversing Induction Motor with No. 791 Drum Reversing Switch		Size of Motor H.P.	Speed of Motor R.P.M.	Voltage	Cat No.	Price
				Cat. No.	Price	Cat. No.	Price	Cat. No.	Price					
$\frac{1}{4}$	1725	110	60	711-X	Add \$1.00	1151-X	Add \$6.00	717-X	Add \$12.00	$\frac{1}{4}$	1725	115	718-X	Add \$19.00
$\frac{1}{4}$	1425	110	50	127-A-X	Add 1.25	1152-X	Add 7.00	1164-X	Add 12.00	$\frac{1}{4}$	1725	230	718-A-X	Add 19.00
$\frac{1}{4}$	1725	220	60	711-A-X	Add 2.00	1151-A-X	Add 6.00	717-A-X	Add 12.00	..	..	..	..	..
$\frac{1}{4}$	1425	220	50	711-A-X	Add 2.00	1152-A-X	Add 7.00	1164-A-X	Add 12.00	..	..	..	..	..
$\frac{1}{2}$	1725	110	60	1168-X	Add \$5.00	1171-X	Add \$11.50	1176-X	Add \$32.00	$\frac{1}{2}$	1725	115	1191-X	Add \$22.50
$\frac{1}{2}$	1425	110	50	1169-X	Add 6.00	1173-X	Add 12.50	1178-X	Add 32.00	$\frac{1}{2}$	1725	230	1191-A-X	Add 22.50
$\frac{1}{2}$	1725	220	60	1168-A-X	Add 6.00	1171-A-X	Add 11.50	1176-A-X	Add 32.00	..	..	..	..	..
$\frac{1}{2}$	1425	220	50	1169-A-X	Add 7.00	1173-A-X	Add 12.50	1178-A-X	Add 32.00	..	..	..	..	..
$\frac{3}{4}$	1725	110	60	..	..	1348-X	Add \$17.00	1193-X	Add \$40.00	$\frac{3}{4}$	1725	115	1208-X	Add \$31.00
$\frac{3}{4}$	1425	110	50	..	..	1349-X	Add 18.00	1195-X	Add 40.00	$\frac{3}{4}$	1725	230	1208-A-X	Add 31.00
$\frac{3}{4}$	1725	220	60	..	..	1348-A-X	Add 17.00	1193-A-X	Add 40.00	..	..	..	..	..
$\frac{3}{4}$	1425	220	50	..	..	1349-A-X	Add 18.00	1195-A-X	Add 40.00	..	..	..	..	..

No. 1618. Stand for mounting No. 791 Switch on bench top when used with 9" "Workshop" Underneath Belt Motor Drive Bench Lathe, \$1.50.



Fig. 94

Tool Grinder (Electric)

A high grade bench grinder for grinding tool bits, drills, etc. Has $\frac{1}{8}$ H.P. 1-ph., 60-cy., 110-v., A.C. ball bearing motor, 3450 R.P.M.; 2 abrasive wheels, 6" x $\frac{3}{4}$ " x $\frac{1}{8}$ ", 60 and 36 grit; 2 wheel guards; 2 rests; switch; 10-ft. cord and plug.

No. 1108. Code "Lamon", Shipping Wt. 54 lbs. \$20.00

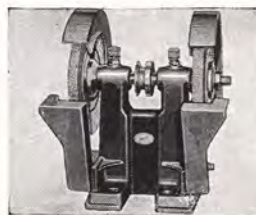


Fig. 95

Tool Grinder (V-Belt Drive)

A practical bench grinder for tool bits, drills, etc. Price includes 2 abrasive wheels, 6" x $\frac{3}{4}$ " x $\frac{1}{8}$ ", 60 and 36 grit; 2 guards and rests.

Cat. No. 710-B. "Jerub", Shipping Wt. 13 lbs. \$6.00

Blue Print Drawings of Benches Supplied Free With Bench Lathes, On Request

Blue prints of detailed drawings showing all principal dimensions for building lathe benches will be supplied free with bench lathes, on request. These plans show both detail dimensions and assembly of bench. Blue prints are available for both frame and cabinet type benches and may be used for building benches of either hard pine or maple.

When requesting blue prints be sure to specify the type of bench for which you wish blue print drawings. Blue prints will be shipped with the lathe without obligation to you.



Fig. 96. Frame Bench with One Drawer

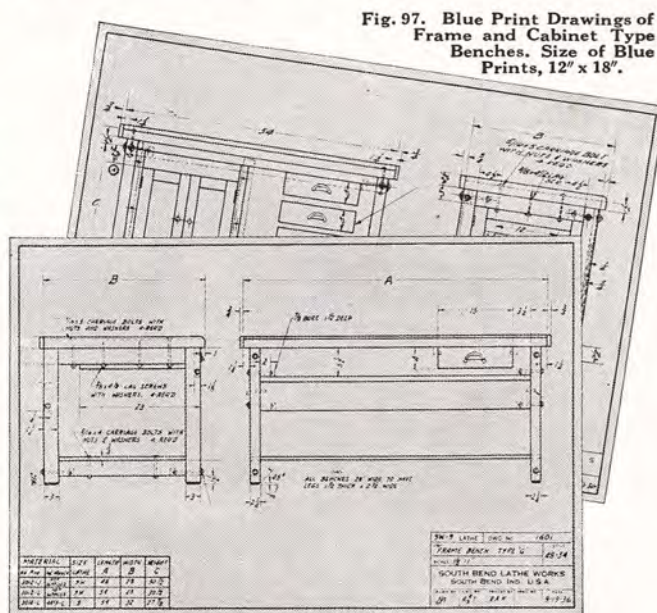


Fig. 97. Blue Print Drawings of Frame and Cabinet Type Benches. Size of Blue Prints, 12" x 18".

South Bend Easy Payment Plan

10 to 15 Months to Pay

By using our Easy Payment Plan, customers in the United States can purchase any size South Bend Lathe, with or without attachments, chucks and tools, on easy payments.

By making a small down payment with the order, the lathe is shipped immediately and the balance is paid in small monthly installments while the lathe is being used. You deal directly with us—we have no connection with any finance company.

Example Easy Payment Order

1 No. 415-ZA, 9"x3 1/2" "Workshop" South Bend Adjustable Type, Horizontal Motor Driven Bench Lathe with Electrical Equipment and Regular Equipment as shown on page 2.....\$128.00
1 No. 105-W, Chuck and Tool Assortment, (see page 20).....39.25
Total Price f.o.b. cars, South Bend, Indiana.....\$167.25

Easy Payment Terms on Above Order

Total Price of above order.....\$167.25
Amount of Down Payment.....35.00
Balance Due.....\$132.25
Amount for Financing Balance.....10.00
Amount to be paid in Monthly Installments.....\$142.25
Payments each Month.....11.50
Number of Months to Pay—12 Months.

Write for Time Payment Bulletin No. 10-P

The South Bend Time Payment Plan is fully explained in Bulletin No. 10-P. Copy will be mailed postpaid on request, without obligation.

SCHEDULE OF EASY PAYMENT TERMS

If Total Price of Your Order Amounts to	Amount of Down Payment	Payment Each Month	Amount for Financing Balance	Approx. No. of Months* to Pay
\$ 70.00 to \$ 80.00	\$ 19.00	\$ 6.50	\$ 6.00	10
80.01 to 90.00	21.00	7.00	6.50	10
90.01 to 100.00	24.00	7.00	7.00	11
100.01 to 110.00	28.00	7.00	7.50	12
110.01 to 120.00	29.00	8.00	7.50	12
120.01 to 130.00	30.00	8.50	8.00	12
130.01 to 140.00	31.00	9.00	8.50	12
140.01 to 150.00	32.00	10.00	9.00	12
150.01 to 175.00	35.00	11.50	10.00	12
175.01 to 200.00	40.00	13.00	11.50	12
200.01 to 225.00	45.00	15.50	13.00	12
225.01 to 250.00	50.00	17.00	14.50	12
250.01 to 275.00	55.00	18.50	16.00	12
275.01 to 300.00	60.00	19.50	17.50	12
300.01 to 325.00	65.00	22.00	19.00	12
325.01 to 350.00	70.00	24.00	20.50	12
350.01 to 375.00	75.00	25.00	23.50	13
375.01 to 400.00	80.00	26.00	25.00	13
400.01 to 450.00	90.00	26.00	29.00	14
450.01 to 500.00	100.00	29.00	32.50	14
500.01 to 550.00	107.50	30.50	38.00	15
550.01 to 600.00	115.00	33.50	41.00	15

* In some cases there will be one more month depending on the amount of the total order.

Approximate Freight Rates From South Bend to Principal Cities

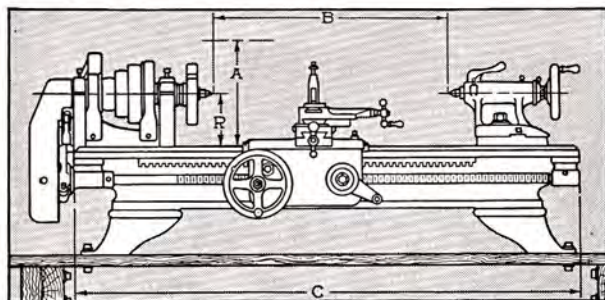
To determine the freight charges on your order, use the freight rate applying to the city nearest your shipping point—as shown in list at right. Multiply the total weight of your order by the rate given per hundred pounds and the result will be the approximate freight charges on your order.

Example—Freight charges on the 9" x 3" "Workshop" Lathe, weighing 310 lbs., to Omaha, Nebr., at \$1.57 per 100 lbs., \$4.87.

If desired your lathe can be shipped by railway express, at slightly higher cost than by freight. Unless you specify how shipment is to be made, lathe will be shipped freight by the most economical route.

	Rate per 100 lbs.
Baltimore, Md.	\$1.20
Boise, Idaho	4.68
Boston, Mass.	1.36
Chicago, Ill.	0.48
Charleston, S. C.	2.00
Cleveland, Ohio	0.71
Denver, Colo.	2.58
Detroit, Mich.	0.61
Hartford, Conn.	1.32
Helena, Mont.	4.68 1/2
Los Angeles, Calif.	5.36
Louisville, Ky.	0.71
Miami, Fla.	2.67
Milwaukee, Wisc.	0.60
Minneapolis, Minn.	1.48

	Rate per 100 lbs.
Montgomery, Ala.	\$1.73
New York, N. Y.	1.32
New Orleans, La.	1.99
Oklahoma City, Okla.	2.45
Omaha, Nebr.	1.57
Philadelphia, Pa.	1.26
Pittsburgh, Pa.	0.84
Portland, Ore.	5.36
Richmond, Va.	1.29
St. Louis, Mo.	0.81
Salt Lake City, Utah	4.57
San Antonio, Tex.	3.00
San Francisco, Calif.	5.36
Seattle, Wash.	5.36
Wichita, Kan.	1.97



How to Determine the Size of a Lathe

The letters in the illustration above show the various dimensions which determine the size of a Back-Geared Screw Cutting Lathe: A—Swing over bed; R—Radius or one-half the Swing; C—Length of Bed; B—Distance between Centers. If you desire, our engineers will recommend the size lathe best suited to your needs.



Safe Delivery Guaranteed

Every South Bend Lathe is carefully packed and crated to reach you in perfect condition, free from rust and breakage. We guarantee you against any loss or damage while your lathe is in transit.

Lathe Crated for Domestic Shipment

The 9-inch "Workshop" Lathe, for shipment to points in the United States, Canada or northern Mexico is not knocked down, but is skidded and crated as shown above. All finished or polished parts are greased to prevent rusting and each unit is wrapped securely in heavy paper to protect it from dust and dirt. The small parts are packed in a box which is nailed to the skids.

Export Information on 9-inch "Workshop" South Bend Lathes

Export Prices. All prices quoted in this bulletin are the latest net prices f.o.b. factory South Bend, Indiana. On shipments requiring the lathes to be boxed, an extra charge of \$7.00 per lathe is made for packing and boxing. On shipments which are crated as for domestic shipment there is no additional packing charge.

Boxing the Lathe for Export Shipment. Lathes boxed for ocean shipment are dismantled and all parts are oiled, greased, wrapped and packed in one strong case. We have had more than 25 years' experience in shipping to more than 96 countries and colonies.

C. I. F. Prices. Let us know the size and type of lathe in which you are interested and we will give you an itemized quotation in your own language showing the price of the lathe delivered C. I. F. to your nearest port. Write to us at once as this places you under no obligation.

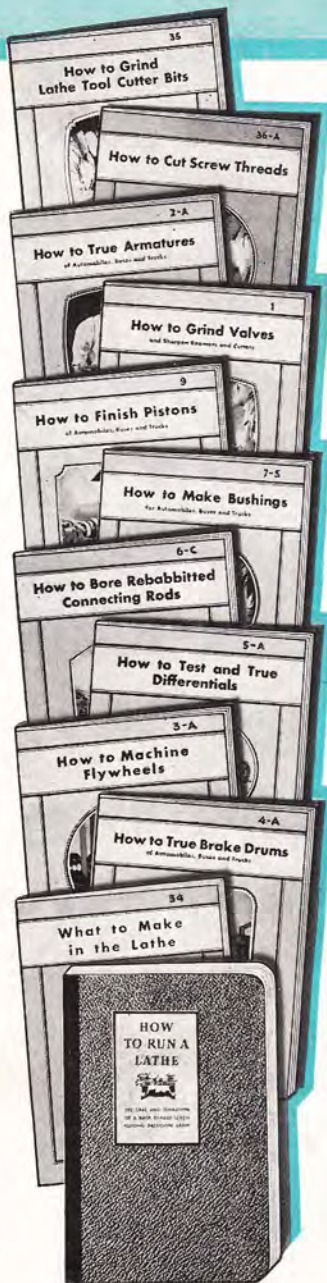
Export Shipping Information

Size of Export Case (9" x 3" "Workshop" Lathe).....48"x24"x21"
Weight of 9" x 3" Lathe, boxed, approximately.....450 lbs.
Freight Rate to Ship Side New York City.....\$1.45 per cwt.
Extra charge for Boxing for Ocean Shipment, per lathe.....\$7.00

Shipping Costs to Principal World Ports

Listed below are approximate transportation and insurance charges to various world ports on the 9" x 3" "Workshop" Lathe including transportation from our factory to steamship pier and ocean freight where shipment is made by water. Consular fees and customs duties levied by various countries are not included in these estimates. For itemized shipping expense write to us for quotation.

Buenos Aires, Argentina.....\$20.00	Alexandria, Egypt.....\$24.00
Callao, Peru.....21.00	Bangkok, Siam.....15.00
Guayaquil, Ecuador.....22.00	Batavia, Java.....17.00
Havana, Cuba.....17.00	Calcutta, India.....15.00
La Guayra, Venezuela.....19.00	Honolulu, Hawaii.....13.00
La Libertad, Salvador.....20.00	Kingston, Jamaica.....15.00
LaPaz, Bolivia via Mollendo, 21.00	Lisbon, Portugal.....24.00
Panama City, Panama.....16.00	London, England.....17.00
Puerto Colombia, Colombia 20.00	Port Natal, U. of S. Africa 16.00
Puerto Limon, Costa Rica.. 16.00	Port of Spain, Trinidad..... 17.00
Rio de Janeiro, Brazil..... 22.00	Rangoon, Burma.....16.00
San Jose, Guatemala.....18.00	Shanghai, China.....18.00
San Juan, Puerto Rico.....13.00	Singapore, S. S.....15.00
Valparaiso, Chile.....21.00	Sydney, Australia.....17.00
Vera Cruz, Mexico.....16.00	Wellington, New Zealand.. 17.00



Valuable Books for the Mechanic

The bulletins listed below illustrate and describe how to handle general lathe work and seven major auto service jobs according to the latest shop practice that is followed in the most successful shops and plants in the United States. Thousands of mechanics are using these bulletins in their work. Order some of these for your mechanics—they may be helpful. Bulletins are 6"x9" and contain from 8 to 160 pages each. When ordering specify titles of bulletins wanted and they will be mailed postpaid on receipt of price indicated. Coin or stamps of any country accepted.

"How to Grind Lathe Tool Cutter Bits" Bulletin No. 35. Explains in detail how to sharpen various types of cutter bits for lathe work. 16 pages, size 6"x9", 50 illustrations. Price postpaid10c

"How to Cut Screw Threads" Bulletin No. 36-A. Explains various screw thread forms and how to cut screw threads in the lathe. 24 pages, size 6"x9", 65 illustrations. Price postpaid10c

"How to True Armature Commutators and Undercut Mica" Bulletin No. 2-A. (Automotive). Contains information on truing armature commutators and undercutting mica in the lathe. 12 pages, size 6"x9", 35 illustrations. Price postpaid10c

"How to Grind Valves and Sharpen Reamers" Bulletin No. 1. (Automotive). Contains information on refacing automobile engine valves sharpening valve seat reamers, cutters, etc. 12 pages, size 6"x9", 23 illustrations. Price postpaid10c

"How to Finish Pistons" Bulletin No. 9. (Automotive). Contains detailed information on finishing semi-machined pistons in the lathe, reaming and honing wrist pin holes, etc. 12 pages, size 6"x9", 31 illustrations. Price postpaid10c

"How to Make Bushings" Bulletin No. 7-S. Contains information on making bushings, lathe mandrels, press fits and running fits. 12 pages, size 6"x9", 28 illustrations. Price postpaid10c

"How to Bore Rebabbed Connecting Rods" Bulletin No. 6-C. (Automotive). Illustrates and describes the latest shop practice for boring, facing, and finishing rebabbed connecting rods. 12 pages, size 6"x9", 25 illustrations. Price postpaid10c

"How to Test and True Differentials" Bulletin No. 5-A. (Automotive). Contains information on removing the old ring gear, testing and truing the ring gear seat, testing bearings of drive pinions, etc. 8 pages, size 6"x9", 20 illustrations. Price postpaid10c

"How to Machine Flywheels" Bulletin No. 3-A. (Automotive). Contains information on turning down flywheels for new starter ring gears. 8 pages, size 6"x9", 24 illustrations. Price postpaid10c

"How to True Brake Drums" Bulletin No. 4-A. (Automotive). Shows how to mount various types of brake drums in the lathe for truing the drum so that it will be concentric, round and true. 16 pages, size 6"x9", 40 illustrations. Price postpaid10c

"What to Make in the Lathe" Bulletin No. 34. Illustrates and describes over 65 useful projects for the home and shop including tools, grinders, and other useful objects, also various models such as steam and gas engines, locomotives, airplanes, etc. 28 pages, size 6"x9", 75 illustrations. Price postpaid10c

"How to Run a Lathe" (32nd Edition). This is an authoritative and instructive manual on the care and operation of a back-geared screw cutting lathe. It gives the fundamentals of lathe operation in detail with illustrations of various classes of work. Contain 160 pages, size 5 1/4"x8", and 300 illustrations.

This book is used as a handy reference book by machinists and apprentices in industrial plants, railroad shops and machine shops, and is also used as a text book by students in educational institutions. It is considered the most popular text on lathe work in the world. More than a million and a half copies are in use. Price postpaid25c

"The Home Workshop" Handbook No. 11-W. This is an interesting booklet on modelmakers' workshops, home workshops and various classes of homeshop work. Also contains tables and other useful information for the hobbyist. 28 pages, size 6"x9", 75 illustrations. Send postpaidFree

South Bend Lathe Works

483 Niles Avenue,
South Bend, Ind., U.S.A.

CABLE ADDRESS: "TWINS," SOUTH BEND. ALL COMMERCIAL CODES USED.

FACTORY OF SOUTH BEND LATHE WORKS

The illustration below shows the factory of the South Bend Lathe Works which was established Nov. 1, 1906, in South Bend, Indiana. For more than thirty years this organization has operated under the same management and has been devoted exclusively to the manufacture of South Bend Back-Geared, Screw Cutting Precision Lathes which are used throughout the United States and ninety-six other countries. Visitors are always welcome.



WE GUARANTEE every South Bend Lathe to be accurate and mechanically perfect; to give you entire satisfaction and the service you have a right to expect. We will replace free of charge, F.O.B., South Bend, Indiana, U.S.A., within one year from the date of purchase, any lathe part that proves defective, either in material or workmanship.

If you are interested in a lathe and are not familiar with the quality and workmanship of South Bend Lathes, we will, on request, ship any size or type of South Bend Lathe anywhere in the United States for use in your shop. If for any reason you are not satisfied, you may return it to us within thirty days and we will pay the return freight charges and refund your money.

SOUTH BEND LATHE WORKS