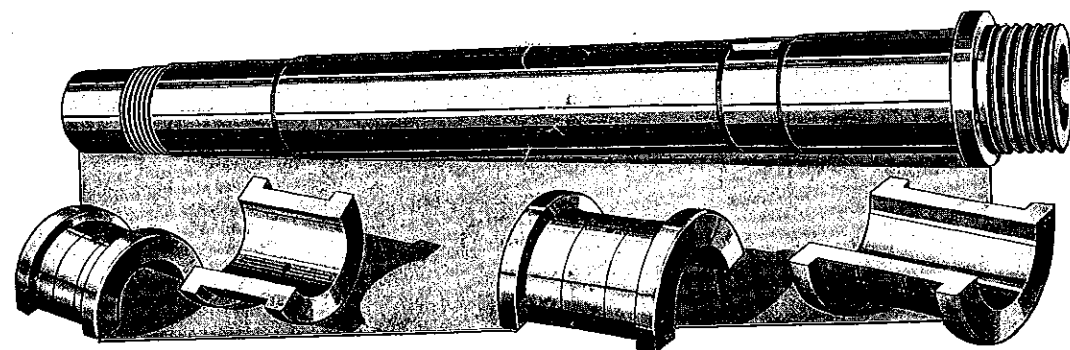


### Back-Geared Headstock

The illustration above shows a cross section view of the back-geared headstock used on all sizes of Series "O" South Bend Quick Change Gear, Standard Change Gear and 9-inch Junior Lathes. The headstock is back-geared, reinforced and webbed, insuring strength and rigidity. The headstock base is accurately hand-scraped and fitted to the lathe bed. Many practical features are embodied in the headstock of the South Bend Lathe, the most important of which are listed in the column at right.

Eight spindle speeds (13", 15", 16", 18", 16-24" and 36" Lathes).  
Six spindle speeds (9" and 11" Lathes).  
Hollow spindle for machining bar stock.  
Back-gears for slow speeds and power.  
Spindle cone and bull gear balanced for high speeds.  
Quick-acting bull gear lock for engaging back-gears.  
Spring latch reverse for feeds and threads on 9" Jr. and larger.  
Hardened and ground spindle thrust collar.  
Three-step spindle cone is supplied on 9" and 11" Lathes.  
Four-step spindle cone (13", 15", 16", 18", 16-24" & 36" Lathes).



### Headstock Spindle and Bearings

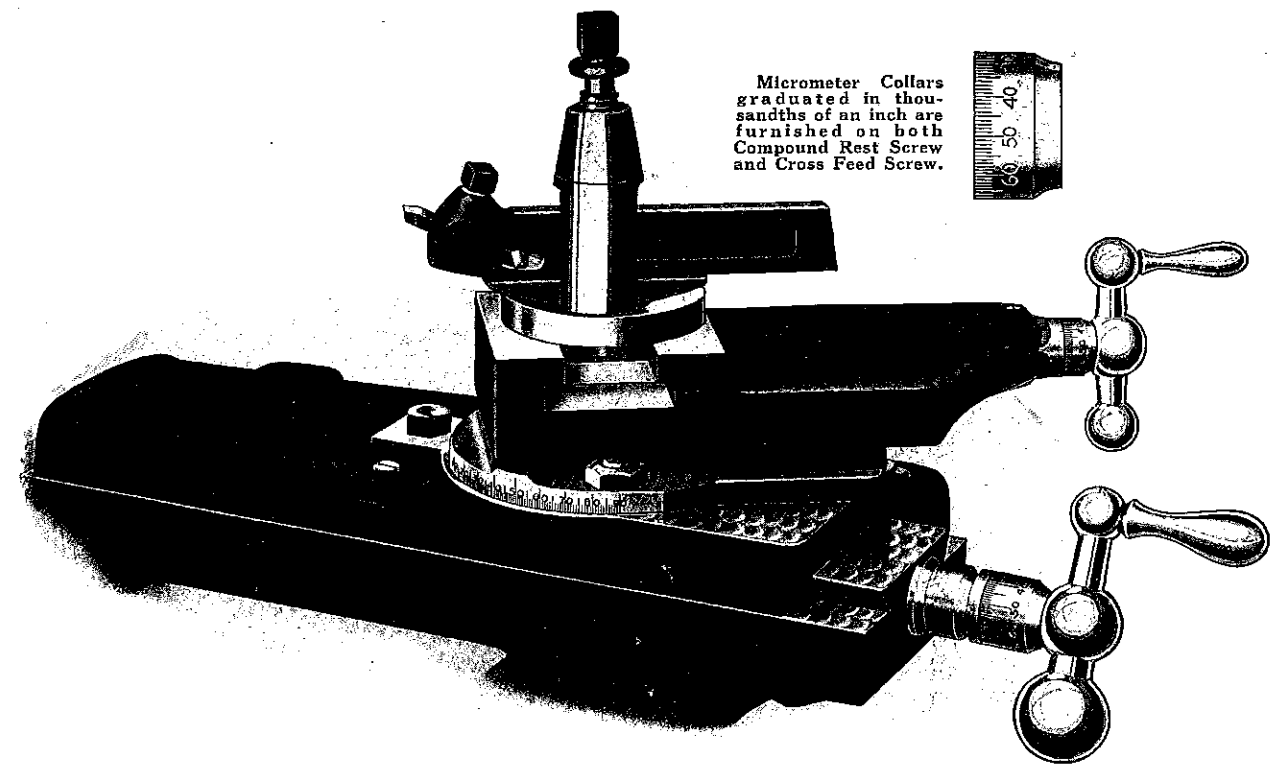
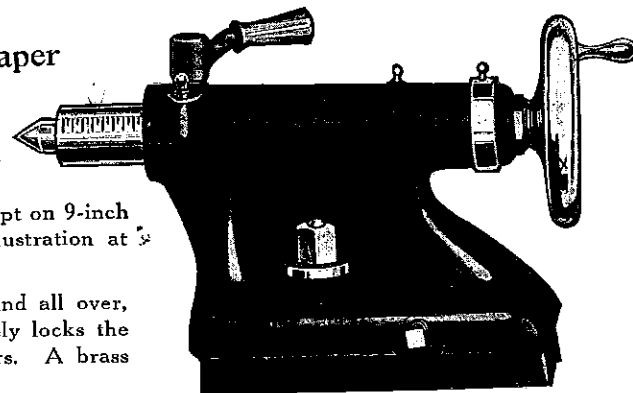
The headstock spindle is made of special quality spindle steel, and has a large hole its entire length through which rods and bars may pass to the lathe chuck and draw-in collet chuck for machining. The taper is accurately bored and is fitted with a taper reducing sleeve for the lathe center. Bearing surfaces of the spindle are ground to master gauges. Threads on end of spindle nose are cut to a precision gauge to insure interchangeability of chucks and face plates. A hardened and ground thrust collar takes thrust of spindle against rear bearing.

Headstock bearings for lathe spindle (except 9-inch "Workshop") are of high quality phosphor bronze, carefully fitted to the housing, line bored and lapped in position. Lubrication is provided by an improved oiling system through patented oil cups. Adjustment for wear is provided by laminated shims under the bearing caps. Bearings for 9-inch "Workshop" Lathes are nickel-iron alloy, cast integral with headstock and are line bored and lapped to fit spindle. Lubrication is by improved felt wick oiling system and bearings are adjustable for wear.

### Tailstock with Set-Over for Turning Taper

The tailstock is of an improved design with long-bearing on the bed. The tailstock top is offset to allow the compound rest to swivel parallel to the bed, and has set-over for taper turning. The spindle is made of steel, ground and lapped to fit the tailstock barrel, and is graduated in sixteenths of an inch (except on 9-inch "Workshop" Lathe) for drilling to accurate depths. The illustration at right shows tailstock used on the 16-inch South Bend Lathe.

The lathe center is made of tool steel, hardened and ground all over, and is self-ejecting. An improved double plug binder securely locks the tailstock spindle without altering the alignment of the centers. A brass quill and oil well are provided for oiling the center.



Micrometer Collars graduated in thousandths of an inch are furnished on both Compound Rest Screw and Cross Feed Screw.

### Graduated Compound Rest

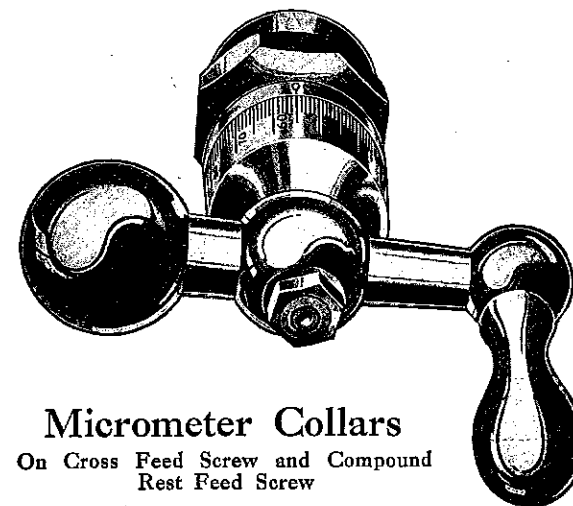
The compound rest swivel is graduated 180 degrees and swivels to any angle on a large central stud. It can be clamped at any desired angle for machining and for turning or boring short tapers. For angular travel of compound rest see specifications shown with each size lathe.

The illustration of the compound rest mounted on the saddle of the lathe shows the advantage of the two feed screws—the compound rest feed screw and the cross feed screw of the saddle. In combination, these two feed screws permit the operator to do all kinds of straight or taper

work, as the cutting tool may be fed in any direction. The micrometer graduated collars are described below.

A large T-slot is provided at the top of the compound rest for holding the tool post, boring bars and other attachments. The compound rest base and swivel are surfaced, then hand-scraped and fitted with adjustable gib. Top slide dovetail is hand-scraped and fitted with adjustable gib.

The 9" "Workshop" compound rest is held in place on the base slide by a gib and inverted cone, and is locked in position by two binding screws one on each side of cross slide.



### Micrometer Collars

On Cross Feed Screw and Compound Rest Feed Screw

The cross feed screw of the saddle and the compound rest feed screw are each equipped with a micrometer graduated collar, graduated in thousandths of an inch, for adjusting the depth of the cut in turning and boring. An adjustment is provided so that the operator can set the collar at zero whenever desired. The graduated collars on the cross feed screw and the compound rest feed screw permit these screws to be used to advantage on fine, accurate work.

### Lathe Beds

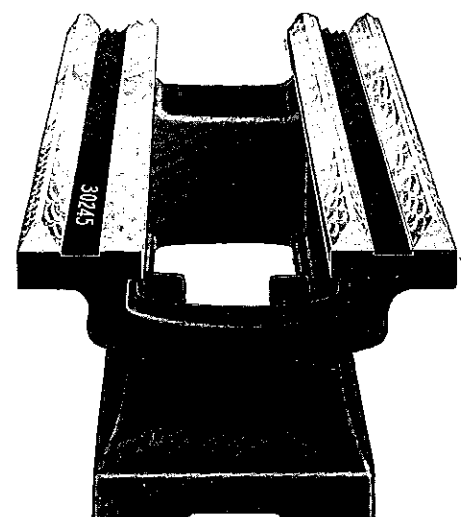
For All Sizes and Types of South Bend Lathes

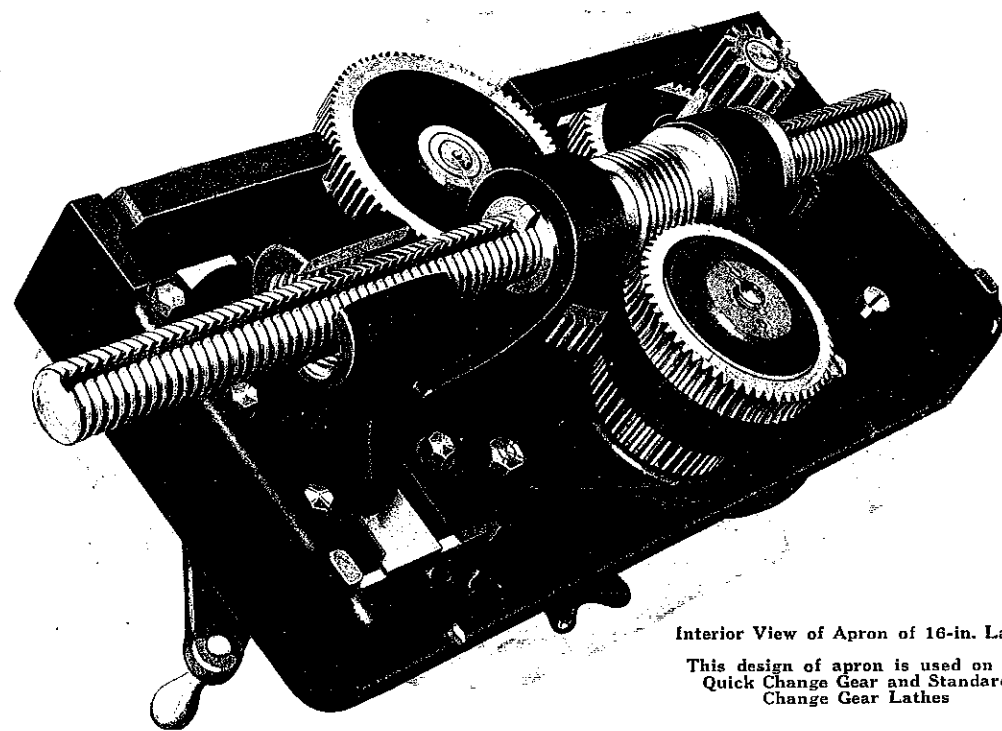
Lathe beds are made of a hard, close-grained mixture of grey iron containing 50% steel which gives them strength and wearing qualities. Beds are of heavy construction, reinforced by box braces cast in at short intervals the entire length.

#### Lathe Beds Seasoned

After rough planing, the lathe bed is permitted to season thoroughly before it is finish planed. All lathe beds are machined, hand-scraped and finished by experienced workmen.

The lathe bed is fitted with three "prismatic V-ways" and one flat way as shown by the illustration. The carriage slides on the two large outer V-ways of the bed. The inner V-way and flat way align the headstock and tailstock on the bed.





Interior View of Apron of 16-in. Lathe  
This design of apron is used on all  
Quick Change Gear and Standard  
Change Gear Lathes

## Apron on the Series "O" South Bend Lathe

### Construction Features

The illustration above shows an interior view of the apron used on Quick Change Gear and Standard Change Gear Series "O" South Bend Lathes, all sizes and types. The apron is strong, powerful and of simple construction. Note the double worm bracket which supports the steel worm drive for automatic feeds; this feature provides great power.

### Automatic Turning Feeds

An automatic friction clutch knob controls both the automatic longitudinal feed and the automatic cross feed. A change from automatic longitudinal feed to automatic cross feed is obtained by means of a feed lever knob which has three positions. "Up" position for automatic longitudinal feed, "down" position for automatic cross feed, and "central" position for neutral when neither feed is in action.

## Precision Lead Screw of the South Bend Lathe

The lead screw of each South Bend Lathe is made of special quality steel and has acme standard threads. The threads are cut with precision-accuracy on a special machine equipped with a Pratt and Whitney master lead screw. Each lead screw is tested for accuracy of lead, form of thread and pitch diameter; and will meet the most exacting requirements in making the finest precision thread gauges, master taps, dies, jigs, etc.

### The Threads of the Lead Screw Are Not Used for Driving Either of the Automatic Friction Feeds

The threads of the lead screw on the South Bend Quick Change Gear and Standard Change Gear Lathes are not used for driving either the automatic longitudinal feed or the automatic cross feed as both feeds are driven by the spline in the lead screw.

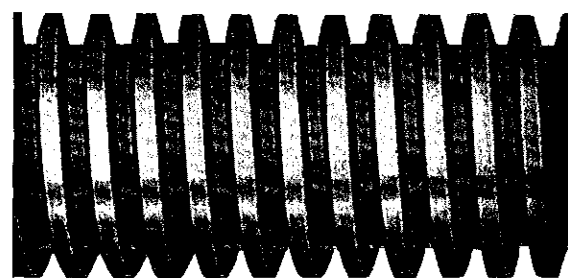
When cutting screw threads on a South Bend Lathe, the two half-nuts in the apron are engaged on the lead screw by a cam lever on front of apron. The threads of the lead screw on a South Bend Lathe, with the proper care and attention, should last a lifetime.

### Splined Lead Screw and Feed Rod

The lead screw is splined which permits it to serve as a feed rod for operating the automatic cross feed and the automatic longitudinal feeds. The lead screw is geared direct to the spindle and permits a wide variety of automatic feed changes.

### Automatic Safety Device

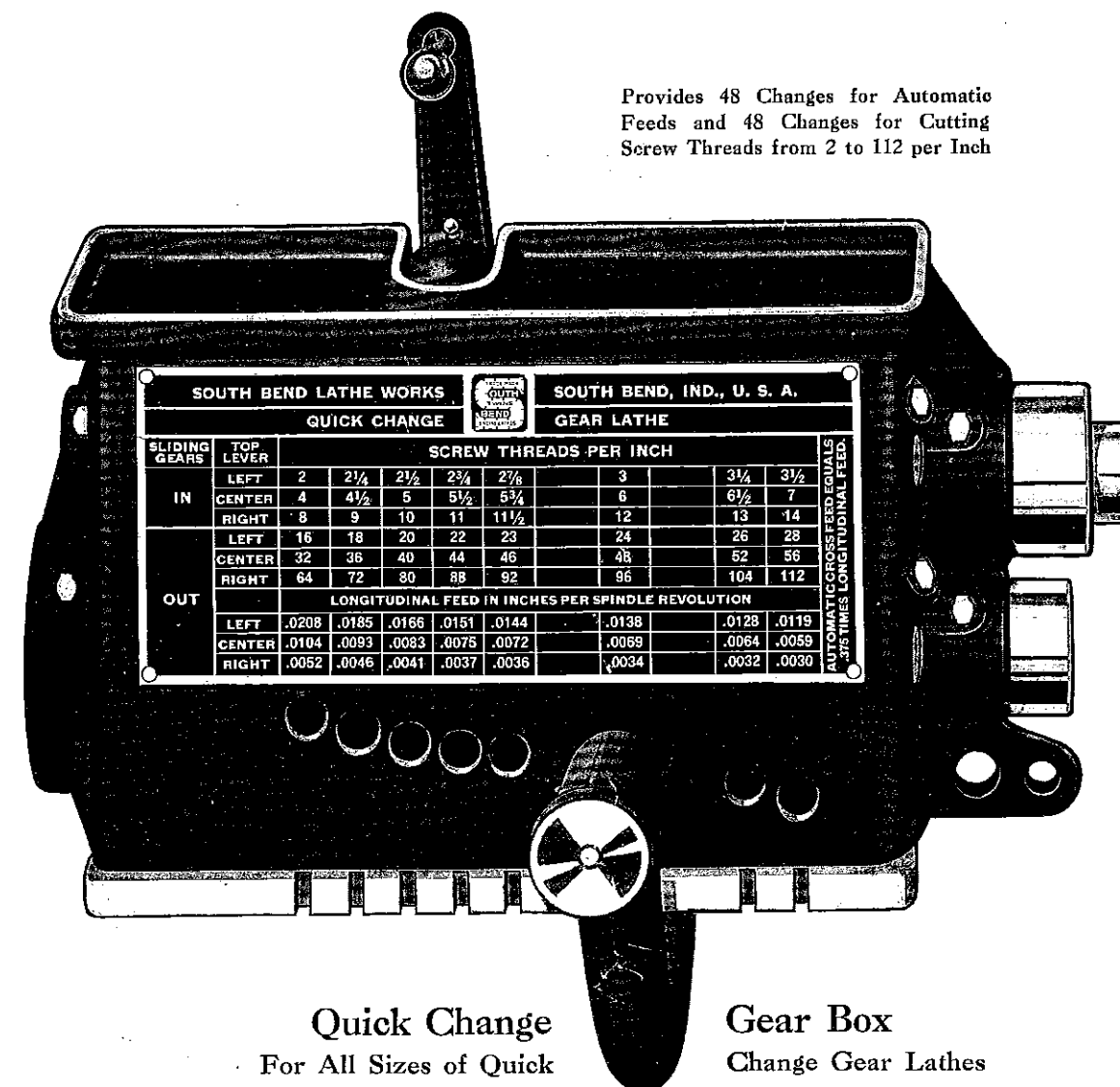
An automatic safety device is provided in the apron of all size South Bend Lathes and prevents either of the automatic feeds from being placed in action while the half-nuts are engaged with the lead screw, for cutting screw threads. Vice versa, the safety device prevents the half-nuts from being engaged with the lead screw while either of the automatic feeds are in action; when either one of the automatic feeds is engaged, the other is locked.



Section of lead screw, actual diameter, used on the 18-inch South Bend Lathe. It is 1 1/8-inch in diameter, 4-pitch

### The Spline in the Lead Screw Is Used for Operating the Automatic Feeds

The spline in the lead screw (on Standard and Quick Change Gear Lathes) is used to drive a worm and worm gearing which operates the automatic cross feed and automatic longitudinal feed of the apron. This is the most modern practice as it develops a powerful geared feed and eliminates the delicate mechanism used in our older type of lathe that was equipped with a separate feed rod.



Provides 48 Changes for Automatic  
Feeds and 48 Changes for Cutting  
Screw Threads from 2 to 112 per Inch

### Quick Change For All Sizes of Quick

### Gear Box Change Gear Lathes

The illustration above shows the quick change gear box with a metal chart attached, indicating the arrangement of the plunger and top lever for cutting screw threads and for obtaining automatic longitudinal feeds and automatic cross feeds on all sizes of South Bend Quick Change Gear Lathes. The size of gear box differs on each size lathe.

### The Improved Sliding Gear

The sliding gear that meshes with the gear box pinion and with the spindle stud, determines the "in" and "out" position as shown on the index plate. This gear has been improved in that it now has a neutral position between the "in" and "out" adjustments, so that the gear is completely out of mesh with one gear before it can mesh with the other gear. This improvement will be found on all South Bend Quick Change Gear Lathes listed in this catalog.

### Standard Screw Thread Cutting Range

The quick change gear box provides forty-eight (48) changes for cutting right or left-hand screw threads from 2 to 112 per inch, including 1 1/2 pipe thread, without removing a gear. The following screw threads can be cut as shown on the quick change gear box chart: 2, 2 1/4, 2 1/2, 2 3/4, 2 7/8, 3, 3 1/4, 3 1/2, 4, 4 1/2, 5, 5 1/2, 5 3/4, 6, 6 1/2, 7, 8, 9, 10, 11, 11 1/2, 12, 13, 14, 16, 18, 20, 22, 23, 24, 26, 28, 32, 36, 40, 44, 46, 48, 52, 56, 64, 72, 80, 88, 92, 96, 104 and 112.

### Automatic Longitudinal Feed Range

Twenty-four (24) automatic longitudinal feeds can be obtained through the quick change gear box as shown on

the lower bracket of the chart. All these feed changes can be made without removing a gear. The automatic longitudinal feeds can be operated in either direction, right or left. The range of automatic longitudinal feeds can be obtained from .003" (3/1000 of an inch) to .020" (20/1000 of an inch) per each revolution of spindle as follows: .0030"; .0032"; .0034"; .0036"; .0037"; .0041"; .0046"; .0052"; .0059"; .0064"; .0069"; .0072"; .0075"; .0083"; .0093"; .0104"; .0119"; .0128"; .0138"; .0144"; .0151"; .0166"; .0185"; and .0208".

Twenty-four (24) additional coarse automatic longitudinal feeds can be obtained through the quick change gear box by placing the sliding gears in the "in" position as shown in the upper bracket. These coarse feeds are seldom needed except on special work.

### Automatic Cross Feed Range

Twenty-four (24) automatic cross feeds may be obtained through the quick change gear box without removing a gear. These feeds range from .001" (1/1000 of an inch) to .007" (7/1000 of an inch) per revolution of spindle as follows: .0011"; .0012"; .0013"; .00135"; .0014"; .0015"; .0018"; .0020"; .0022"; .0024"; .0026"; .0027"; .0028"; .0031"; .0036"; .0039"; .0045"; .0048"; .0052"; .0054"; .0057"; .0062"; .0069"; and .0078".

The Automatic Cross Feeds, as listed in the paragraph above, are obtained by multiplying the automatic longitudinal feeds indicated in the lower bracket of the chart by .375. The resulting figures represent the amount that the cutting tool will travel automatically across the face of the work in thousandths of an inch each revolution of spindle.

## Comparison of Quick Change Gear Lathe and Standard Change Lathe

The Mechanical Units of the Quick Change Gear Lathes and Standard Change Gear Lathes shown throughout this catalog, are identical on lathes of the same size, whether Countershaft Drive, Underneath Belt Motor Drive or Silent V-Belt Motor Drive. For example, the headstock, tailstock, saddle, apron, compound rest and lead screw, are the same on all 16-inch Standard Change Gear and Quick Change Gear lathes, with all types of drive. Similarly, the mechanical units of the 18-inch lathe are common to all 18-inch lathes regardless of type or drive and so on for each of the other size lathes illustrated and described.

The Only Difference between the Quick Change Gear and Standard Change Gear Lathes is in the equipment used for cutting screw threads and for the operation of the automatic turning feeds. The Quick Change Gear Lathe is equipped with a gear box providing 48 changes for cutting screw threads; 48 automatic friction longitudinal feeds; and 48 automatic cross feeds without changing or removing a gear. The Standard Change Gear Lathe has a set of independent change gears for cutting screw threads and for obtaining automatic longitudinal and automatic cross feeds. These gears are changed by hand when a different thread or feed is desired.

### Quick Change Gear Lathe Screw Thread Cutting and Turning Feeds

Screw Threads are Cut on the Quick Change Gear Lathe by engaging the apron half-nuts with the lead screw. The pitch of the thread to be cut is determined by shifting the "sliding gear" A, "top lever" B and "tumbler lever" C of the quick change gear box (see Fig. 1) in accordance with the thread cutting chart which is illustrated at the right. The apron half-nuts and the threads of the lead screw are used only when cutting screw threads.

The Screw Thread Chart is read directly as "threads per inch" when cutting screw threads. For example, Fig. No. 1 at right has the three gear box levers set to cut 24 threads to the inch.

Thread Cutting Range. All Quick Change Gear South Bend Lathes will cut right and left-hand screw threads from 2 to 112 per inch including 1 1/2 pipe thread. Gears can be supplied at extra cost for cutting special threads not shown on index plate.

Automatic Turning Feeds, that is, automatic friction longitudinal feeds and automatic cross feeds are obtained by the use of the automatic friction clutch in the apron, which is operated through a worm gear, driven by a spline in the leadscrew. The fineness or coarseness of the feed is determined by changing the same gear box levers as when cutting screw threads.

The Automatic Feed Chart is read directly in "thousandths of an inch per revolution of lathe spindle" when using the automatic longitudinal friction feed. For example, the gear box in Fig. 1 has the gear box levers set for a longitudinal feed of .0138-inches or an automatic cross feed of .0052-inches. To obtain automatic cross feeds multiply the automatic longitudinal feed by .375.

The Quick Change Gear Lathe is popular in the tool room and machine shop because changes in threads and feeds can be made quickly and easily. To set up lathe for any feed or thread, it is only necessary to shift levers.

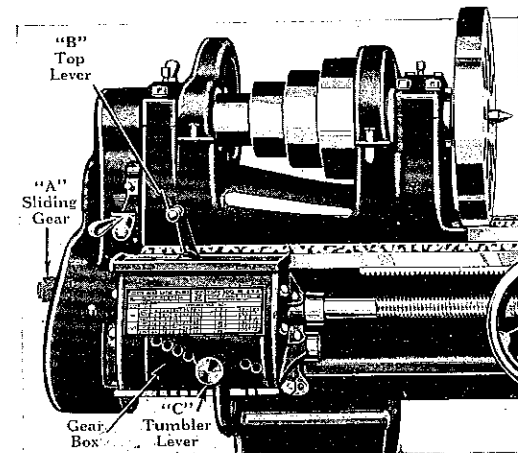


Fig. 1. Quick Change Gear Mechanism used on all South Bend Quick Change Gear Lathes. (See Gear Box Description on Page 41)

SOUTH BEND LATHE WORKS										SOUTH BEND, IND., U. S. A.									
QUICK CHANGE										GEAR LATHE									
SLIDING GEAR										SCREW THREADS PER INCH									
TOP LEVER										GEAR LATHE									
IN										OUT									
LEFT										RIGHT									
2										3									
4										6									
8										12									
16										24									
32										48									
64										96									
128										192									
256										384									
512										768									
1024										1536									
2048										3072									
4096										6144									
8192										12288									
16384										24576									
32768										49152									
65536										98304									
131072										196608									
262144										393216									
524288										786432									
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2097152										3145728									
4194304										6291456									
8388608										12582912									
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8589934592										12884901888									
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68719476736										103079215104									
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111503725992653115756036166989744419328										16725200482120742475553666559983879084800									
223007451985306231512072333979488838656										33450400964241484951107333119967758169600									
446014903770612463024144667958977777312										66902801728482969602221466391935516332800									
892029807541224926048289335917955554624										133805603456965939204442866783870332665600									
1784059615082449852096578671839111109248										267611206913931878408885733567740665331200									
3568119230164899704193157343678222218496										535222413827863756817771471135481306662400									
7136238460329799408386314687356444436928										1070444827655727513635552942270962613324800									
14272476920659598816772629374712888873856										21408896553114550272711058845419									



## South Bend Underneath Belt Motor Drive

### Applying to All Sizes of Underneath Belt Motor Driven Lathes

The Underneath Belt Motor Driven Lathe is an entirely new development. The new drive is a remarkable improvement in the method of driving a back geared screw cutting lathe, being perhaps the most outstanding improvement made on a back geared screw cutting lathe in the last decade. It is the lathe of the Future and marks the greatest forward step in lathe design since the back geared screw cutting lathe was developed.

This New Original Design was first developed in our plant in 1931 and since that time more than 1700 South Bend Underneath Belt Motor Driven Lathes have been placed in use throughout the United States. The engineers in these plants and shops, some of which are the largest in America, are loud in their praise of the power and efficiency of this lathe.

Power, Efficiency and Modern Design are outstanding in this new lathe, and it makes an attractive appearance in any shop. Compare the Underneath Belt Motor Driven Lathe with any other lathe of similar size for power, accuracy and appearance.

Features of This New Drive include (1) Down drive to spindle, (2) Clear vision because of no overhead obstructions, (3) Silent, powerful efficient drive, (4) Fully enclosed, no moving parts exposed, (5) Belt Tension adjustments for any desired pulling power, (6) Belt Tension Release for shifting belt to change spindle speeds.

Motor and Driving Unit are enclosed in the cabinet leg under the headstock. Attached to Cradle (G) Fig. 1, are the countershaft and electric motor. The belt tension release lever (B) controls the position of the cradle and countershaft. When lever (B) is in the "Up" position the entire driving unit is lifted vertically about 1 1/2" so the spindle belt may be shifted. When lever (B) is in the "down" position the driving unit is in position for the operation of the lathe. (A) and (E) are oil cups for lubricating bearings.

Belt Tension on the Driving Belt is adjusted by means of two separate adjustment screws (C) and (H). These two adjustments provide a tension from 1 lb. and upward and when the desired tension is obtained the mechanism may be locked at that point. Adjusting screw (D) takes care of the belt tension on the V-belts from the motor to the countershaft and is entirely independent of the driving belt tension adjustment.

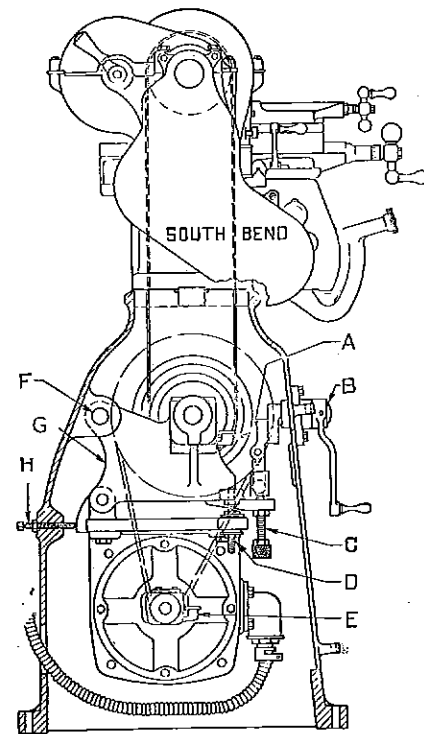


Fig. 1. Cross Section End View of Underneath Belt Motor Driven Lathe.

The Motor Drive Mechanism and Cradle Assembly used on the 18-inch Underneath Belt Motor Driven Lathes, shown on pages 3 and 5, is mounted in a horizontal position instead of a vertical position as shown below; this causes the cabinet leg to extend to the rear, using slightly more floor space than the illustrations below indicate.

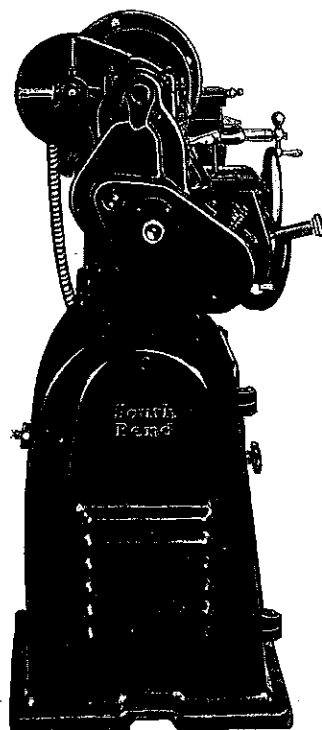


Fig. 2. End view of Underneath Belt Motor Driven Lathe, showing removable ventilated end plate

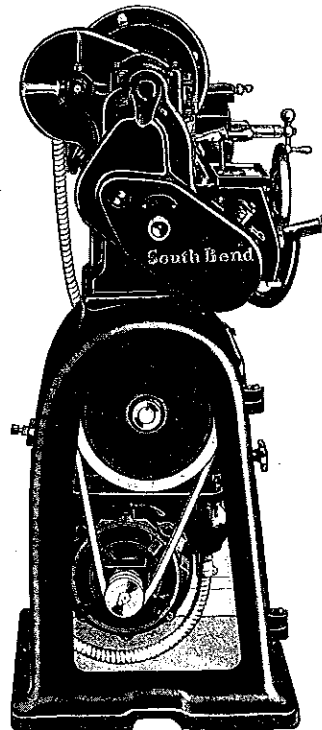


Fig. 3. End view of lathe with end plate removed to show multiple "V" belt drive from motor

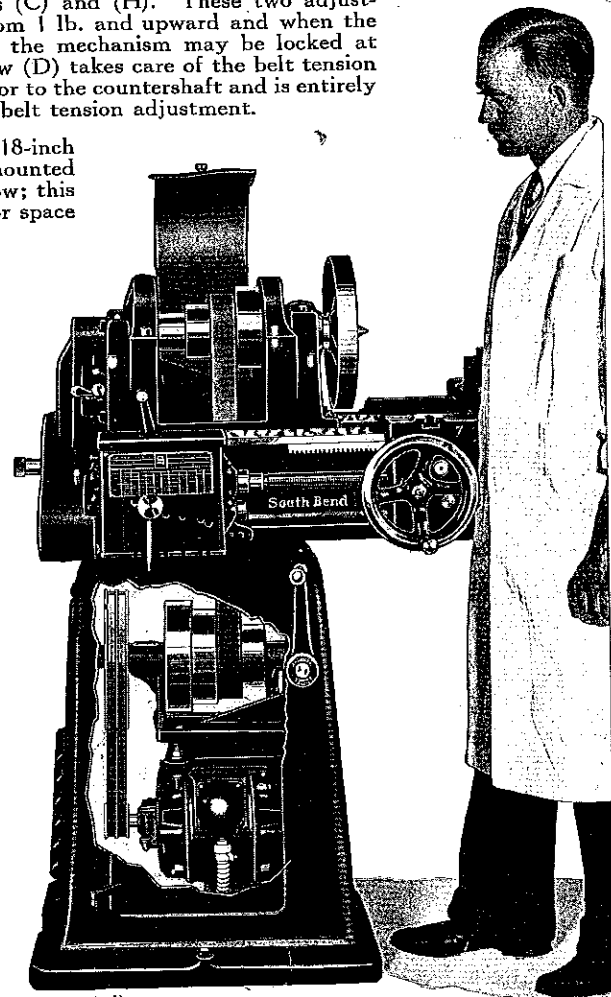


Fig. 4. Front view of 13" lathe with door cut away, showing arrangement of driving mechanism

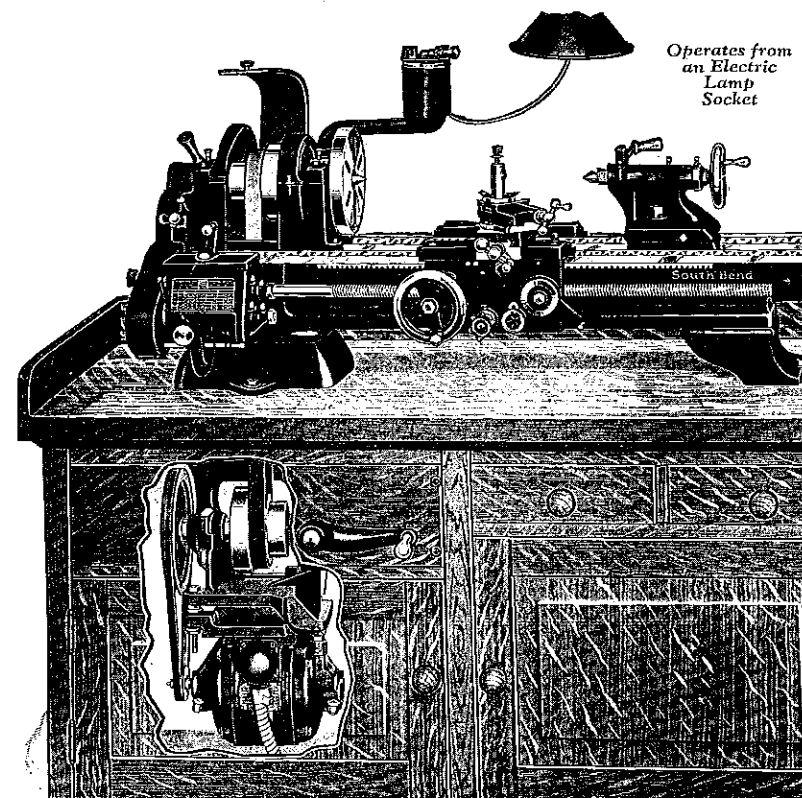


Fig. 1. South Bend Underneath Belt Motor Driven Bench Lathe with Section of Bench Front Cut Away to Show Drive Mechanism. Bench used is illustrated and described on page 62.

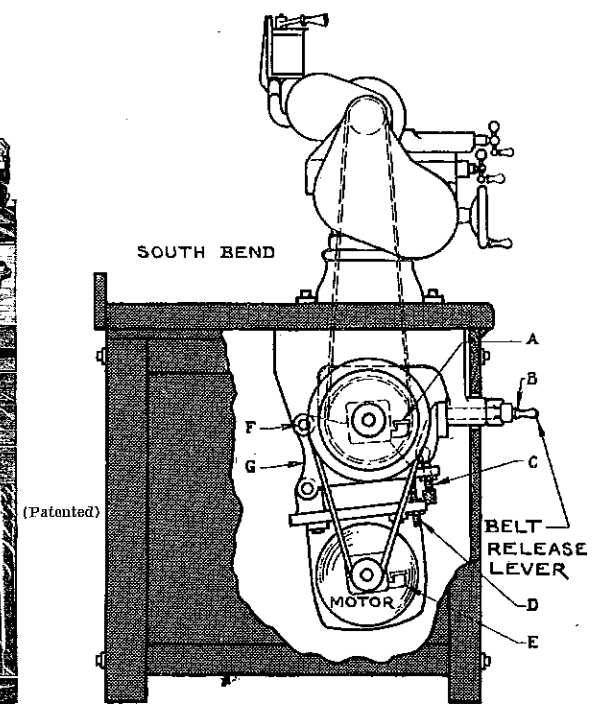


Fig. 2. Cross Section End View of Underneath Belt Motor Driven Bench Lathe.

## Underneath Belt Motor Drive for 9", 11" and 13" Bench Lathes

Has Cone Pulley Belt Tension Adjustment and Tension Release Lever

The New Bench Motor Drive illustrated and described here is recommended for the shop doing all classes of fine accurate work in the cutting of metals. The lathe and drive mechanism when installed on a rigid bench become a self-contained unit that is exceptionally quiet running, smooth and vibrationless at all speeds. The laboratory, machine shop, manufacturing plant and school shop will find the New Underneath Belt Motor Driven Bench Lathe the most outstanding Bench Lathe on the market today regardless of price.

The Underneath Belt Motor Drive for 9", 11" and 13" South Bend Bench Lathes is similar to the Underneath Belt Motor Drive for Floor Leg Lathes which is illustrated and described on opposite page. This new drive eliminates all overhead belts and pulleys and is a big improvement over motor drive equipment previously available for bench lathes.

The Underneath Belt Motor Driven Bench Lathe, as illustrated above, is supplied in the following sizes and types: 9" Junior; 9" Standard and Quick Change Gear; 11" Standard and Quick Change Gear; and 13" Standard and Quick Change Gear. With the exception of the 18" size, these Underneath Belt Motor Drive Bench Lathes are illustrated, described and priced on pages 20, 23 and 29 of this catalog.

Features of this new Drive include: (1) Down Drive to spindle. (2) Clear vision because there are no overhead obstructions. (3) Silent, powerful, efficient drive. (4) Fully enclosed, no moving parts exposed. (5) Screw type belt tension adjustments. (6) Belt Tension Release for easy shifting of cone pulley belt to change spindle speeds.

Power is transmitted by V-Belt from reversing motor to driving cone shaft and a flat belt is used between the cone pulleys. The reversing motor and three step cone pulleys with the back-geared headstock of the lathe provide six changes of spindle speeds, both forward and in reverse.

SOUTH BEND, INDIANA, U. S. A.

Motor and Driving Unit are enclosed in the cabinet type bench under the headstock of lathe. Cradle (G) Fig. 2, is supported by a frame bolted under the bench top. The belt tension release lever (B) controls the position of the cradle (G) which carries the motor and countershaft. When lever (B) is in the "Right" horizontal position the countershaft cone pulley is lifted vertically about 1 1/2" so the cone pulley belt is loose and may be shifted easily. When lever (B) is in the "Left" horizontal position the cone pulley belt is tight and the lathe is ready for operation.

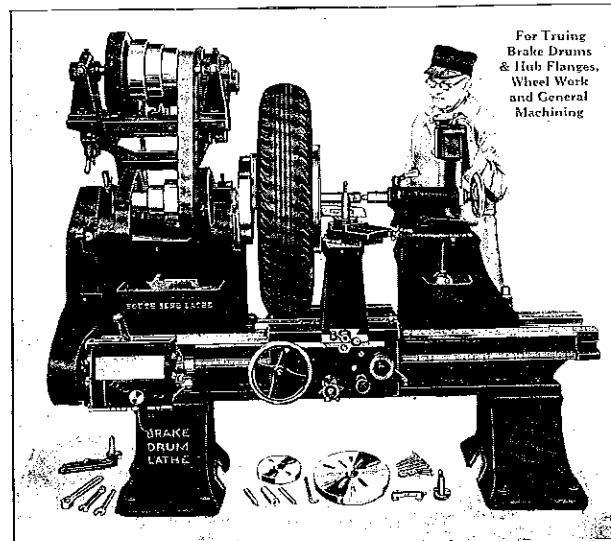
Belt Tension Adjustment for the Cone Pulley Belt is provided by means of Adjusting Screw (C). This adjustment provides any desired pulling power and also takes up the stretch of the belt. Adjusting screw (D) provides belt tension adjustment for the V-belt from the motor to the countershaft and is entirely independent of the cone pulley belt tension adjustment.

The Entire Mechanism of lathe and drive is fully enclosed for safety, to the operator of the lathe and to the mechanism itself. Dust and dirt cannot get into the windings of the motor, pulleys or belts. Bearings are equipped with oil cups (A) and (E). The operator of the lathe is protected from all moving parts of the lathe and driving mechanism. Control switch is enclosed drum type located conveniently for starting, stopping and reversing the lathe spindle.

Bench for Underneath Belt Motor Driven Bench Lathes. The cabinet bench (Type "C"), illustrated above, is recommended for bench lathes equipped with Underneath Belt Motor Drive. The cabinet is specially constructed to house the drive mechanism and to permit easy access to the moving parts. This type of bench is further described and priced on page 62. Bench may be purchased from us complete or may be built from blue prints which we will supply, free of charge, with each lathe.

## 36-inch Brake Drum and General Service Lathe—Silent Motor Drive

Supplied in Quick Change Gear and Standard Change Gear Types



36" x 6' Quick Change Gear Brake Drum Lathe with Silent Chain Motor Drive.....\$902.00

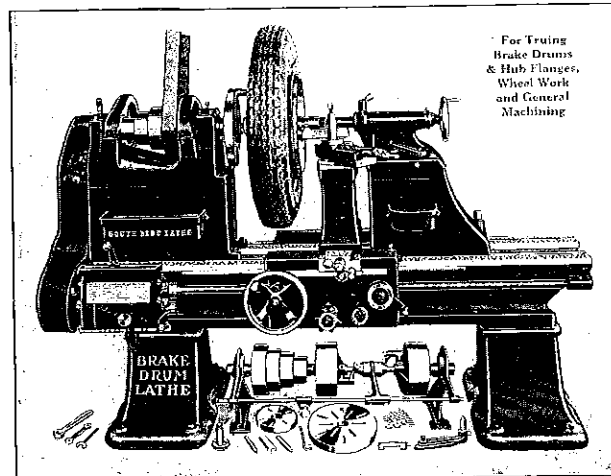
Net Factory Prices 36-inch Series "O" South Bend Brake Drum and General Service Lathe—Silent Chain Motor Drive  
Prices Include Lathe Equipment, Instant Reversing Motor, Reversing Switch and Belting

Prices include Lathes, Equipment, and Labor														
Swings Wheel Tire Attached Inches	Length of Bed Feet	Distance Between Centers Inches	Power Required H.P.	Approx. Weight Crated Pounds	Standard Change Gear Lathes					Quick Change Gear Lathes				
					Cat. No.	Code Word	3-Phase 60-Cycle A.C. Motor	1-Phase 60-Cycle A.C. Motor	Direct Current Motor	Cat. No.	Code Word	3-Phase 60-Cycle A.C. Motor	1-Phase 60-Cycle A.C. Motor	Direct Current Motor
36 1/4	6	27	1	2620	302-C	Claud	\$ 842.00	\$ 880.00	\$ 908.00	304-C	Cajul	\$ 902.00	\$ 940.00	\$ 968.00
36 1/4	7	39	1	2700	302-D	Coast	863.00	901.00	929.00	304-D	Cajah	923.00	961.00	989.00
36 1/4	8	51	1	2780	302-E	Croze	884.00	922.00	950.00	304-E	Cakik	944.00	982.00	1010.00
36 1/4	10	75	1	2940	302-G	Culex	930.00	968.00	996.00	304-G	Cakje	990.00	1028.00	1056.00
36 1/4	12	99	1	3170	302-H	Couge	995.00	1033.00	1061.00	304-H	Comif	1055.00	1093.00	1121.00
36 1/4	14	123	1	3395	302-K	Cofse	1052.00	1090.00	1118.00	304-K	Cokiz	1112.00	1150.00	1178.00

Lathe with 12-foot and 14-foot bed is equipped with center leg, which is included in price of the lathe.

## 36-inch Brake Drum and General Service Lathe—Countershaft Drive

Supplied in Quick Change Gear and Standard Change Gear Types



36" x 6' South Bend Quick Change Gear Brake Drum Lathe, with Countershaft and Equipment.....\$710.00

Net Factory Prices 36-inch Series "O" South Bend Brake Drum and General Service Lathe—Countershaft Drive

Standard Change Gear Lathes						Quick Change Gear Lathes							
Swings Wheel Tire Attached Inches	Length of Bed Feet	Distance Between Centers Inches	Swing Over Carriage Inches	Hole Thru Spindle Inches	Power Required H.P.	Cat. No.	Code Word	Weight Crated Pounds	Net Factory Price	Cat. No.	Code Word	Weight Crated Pounds	Net Factory Price
36 1/4	6	27	17	1 1/8	1	2-C	Cocoa	2160	\$650.00	4-C	Cajga	2195	\$710.00
36 1/4	7	39	17	1 1/8	1	2-D	Cario	2240	671.00	4-D	Cajhe	2275	731.00
36 1/4	8	51	17	1 1/8	1	2-E	Cuxom	2320	692.00	4-E	Cajig	2355	752.00
36 1/4	10	75	17	1 1/8	1	2-G	Cialr	2480	738.00	4-G	Cajko	2515	798.00
36 1/4	12	99	17	1 1/8	1	2-H	Cojal	2710	803.00	4-H	Camra	2745	863.00
36 1/4	14	123	17	1 1/8	1	2-K	Cofra	2935	860.00	4-K	Capma	2970	920.00

Lathe with 12-foot and 14-foot bed is equipped with center leg which is included in price of lathe.

The 36-inch South Bend Brake Drum Lathe with Silent Chain Motor Drive, shown at left, will swing all types of wheels, single and dual, with tire attached, up to 36 1/4-inches in diameter. All types of brake drums up to 23 1/2-inches in diameter, including drums with hub and axle attached, can be trued in this lathe, which uses the self-centering mandrel and adapter method explained on the opposite page.

General Servicing Work such as machining flywheels, differentials and clutch faces, and all general machine work and screw thread cutting, can be done with this lathe, in addition to all kinds of brake drum and wheel work.

Equipment Included in Price of Lathe consists of: Large face plate; small face plate; tool post; thread cutting stop; 2 60° lathe centers; spindle sleeve; wrenches; driver for wheels and drums; change gears (with Standard Change Gear Lathe); installation plan; and directions for operating.

Electrical Equipment included in price of Lathe consists of: Silent chain motor drive unit; 1 H.P. 1200 R.P.M. instant reversing motor; reversing drum switch; wiring between motor and switch enclosed in flexible metal conduit; one flat leather belt; and complete directions for wiring.

Full Details concerning the different sizes and types of South Bend Brake Drum Lathes are contained in Bulletin No. 4, "How to True Brake Drums," described on the opposite page.

The 36-inch South Bend Brake Drum Lathe with Overhead Countershaft Drive, shown at left, will swing all types of wheels, single and dual, with tire attached, up to 36 1/4-inches in diameter. All types of brake drums up to 23 1/2-inches in diameter, including drums with axles attached, can be trued in this lathe, which uses the self-centering mandrel and adapter method explained on the opposite page.

General Servicing Work such as machining flywheels, differentials and clutch faces, and all general machine work and screw thread cutting can be done with this lathe, in addition to all kinds of brake drum and wheel work.

Equipment Included in Price of lathe consists of: Countershaft; large face plate; small face plate; tool post; thread cutting stop; driver for wheels and drums; two 60° lathe centers; spindle sleeve; change gears (with Standard Change Gear Lathe); wrenches; installation plan; complete directions for operating lathe and handling brake drum and wheel work.

Full Details concerning the different sizes and types of South Bend Brake Drum Lathes are contained in Bulletin No. 4, "How to True Brake Drums," which also shows the latest methods for mounting and truing brake drums and describes the proper equipment. See opposite page.

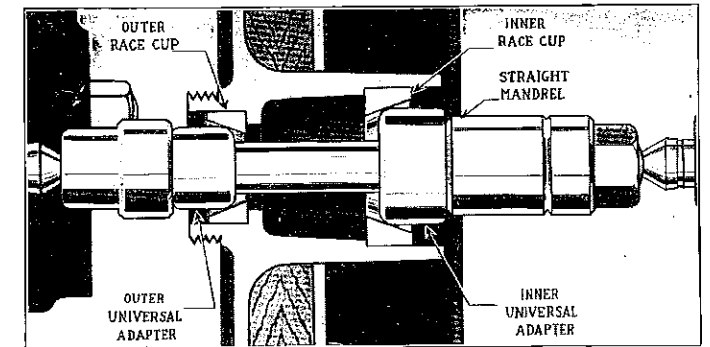
## South Bend Self-Centering Mandrel and Universal Adapter Method

For Accurately Mounting Brake Drums Between Centers in the Lathe

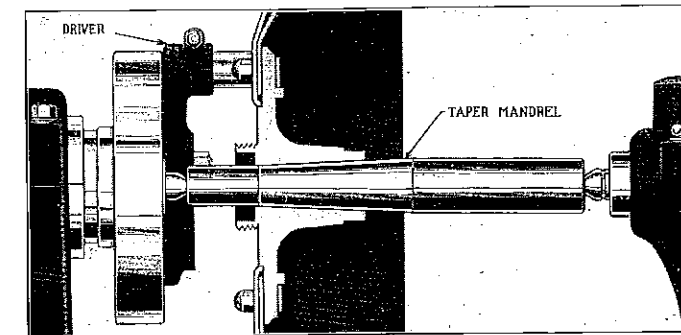
### Mounting Front Wheels in the Lathe

The Self-Centering Mandrel and Adapter Method—an exclusive South Bend feature—is the method used for obtaining absolute accuracy in mounting the wheels of autos, buses and trucks between centers in the lathe for testing, truing and machining brake drums and hubs. The method is practical, fast and economical.

For Mounting Front Wheels, with but a few exceptions, the Straight Mandrel with Universal Bearing Adapters is used. The adapters fit Timken races or the ball-races in the hub of the wheel so that when the wheel is mounted in the lathe, any machining on the brake drum will be concentric with the axis of the hub. It is the accuracy of the South Bend method of truing brake drums which makes the method so popular with large service shops.



Front Wheel Mounted on Straight Mandrel and Universal Adapters



Rear Wheel Mounted on a Self-Centering Taper Mandrel

### Mounting Rear Wheels in the Lathe

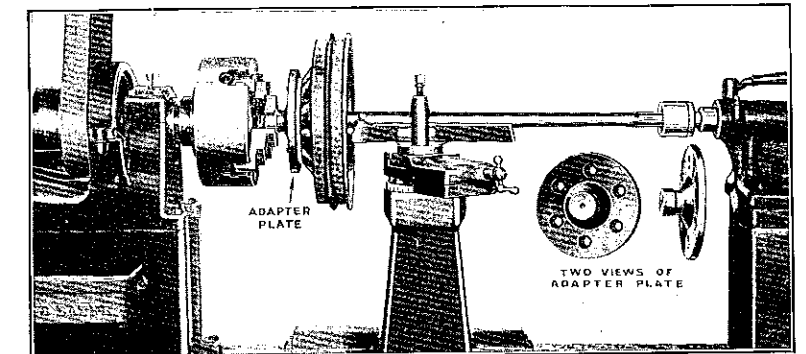
For Mounting Rear Wheels either the Straight Mandrel and Adapters or the Self-Centering Taper Mandrel are used. Since the taper of the mandrel is exactly the same as that of the axle of the car, the wheel is concentrically mounted for truing the brake drum.

Each Taper Mandrel will fit the rear wheels of several cars and one Straight Mandrel with Universal Adapters will fit the front wheels of practically all cars. Because of this, a small assortment of mandrels and adapters will handle the brake drums from practically all of the cars in common use. Each mandrel and adapter is stamped with an identifying number. A chart which we supply lists the mandrels and adapters required for all cars.

### Mounting Drums of Cars with Hub and Axle Integral

Brake Drums of cars having hub and axle integral, such as are now being used by Pontiac, Buick and Chevrolet, are easily machined true in a South Bend Brake Drum Lathe. The hub of the axle with brake drum attached is bolted to an Adapter Plate (shown in illustration at right) which has bolt holes drilled in it corresponding to those in the wheel. The regular bolts and nuts used to fasten the wheel to hub are used when bolting the Adapter Plate to hub. The end of the Adapter Plate is centered in the lathe chuck with the opposite end of the axle shaft centered in a cup center held in the tailstock of the lathe. The brake drum can be machined true and concentric in about five minutes.

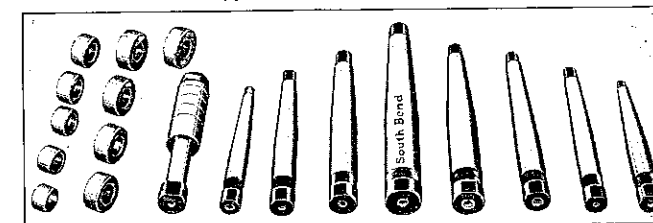
(When ordering Adapter Plate for mounting Brake Drums, specify make and model of car so that plate can be supplied with bolt holes drilled in correct position to fit the bolt holes in the hub).



No. 112 Adapter Plate for mounting brake drums of cars with hub and axle integral (code word "Larko"). Price.....\$4.00

### General Mandrel and Adapter Assortment

Handles 85% of the Cars on the Road Today



General Mandrel and Adapter Assortment No. 6.....\$74.00

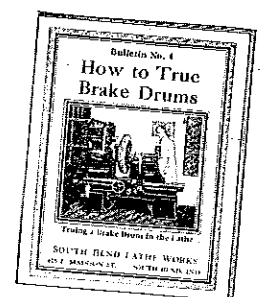
For the General Shop handling the truing of brake drums on all cars, light buses and light trucks, General Assortment No. 6 shown above, consisting of one straight mandrel, ten adapters and eight taper mandrels, is highly practical since it will take care of 85% of all makes, including all of the popular priced cars, buses and trucks. For description and prices of all mandrels and adapters, see page 63.

### Brake Drum Bulletin No. 4

"How to True Brake Drums"

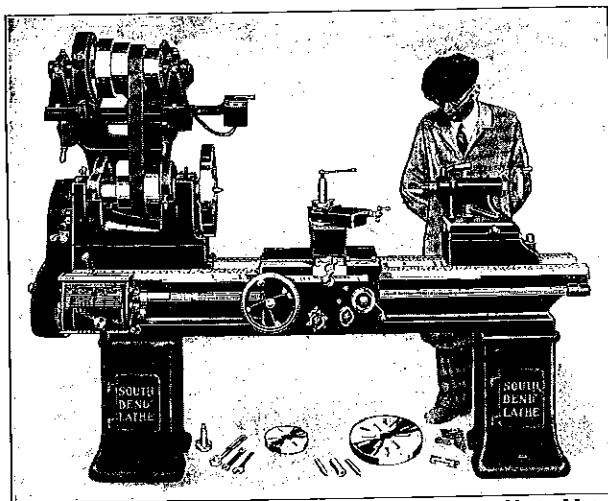
For the Shop already engaged in handling brake and wheel work and for the shop considering entering this line, the 16-page bulletin shown at right will be a valuable reference book. Bulletin No. 4 shows the latest precision methods for doing brake drum truing and wheel servicing work. It also contains a chart listing the proper mandrels and adapters to be used for mounting the wheels of different makes in the lathe.

Bulletin No. 4 also illustrates, describes and prices the different sizes and types of lathes available for different types of shops. Mailed upon request, postpaid.



Contains 35 Illustrations

## 16-24" General Purpose Lathe—Countershaft Drive and Motor Drive Supplied in Quick Change Gear and Standard Change Gear Types



16-24" x 8' South Bend Quick Change Gear, Silent Chain Motor Driven General Purpose Lathe..... \$874.00

The 16-24-inch General Purpose Lathe, shown at left, is the regular 16-inch South Bend Lathe equipped with permanent raising blocks under the headstock, tailstock and tool rest to increase the swing of the lathe to 24-inches. Repair Shops, Machine Shops and Motor Service Shops find this lathe practical and efficient for all average machine work, as well as occasional turning and boring operations on jobs of large diameter.

Principal Features and Specifications of this lathe are the same (except swing sizes) as those listed under the 16-inch lathe described on page 6.

Equipment Included in Price of the 16-24-inch General Purpose Lathe: Silent motor drive unit (with motor drive lathes); countershaft (with countershaft drive lathes); large and small face plates; tool post; thread cutting stop; two 60° lathe centers; spindle sleeve; change gears (with Standard Change Gear Lathes); wrenches; installation plan and book, "How to Run a Lathe."

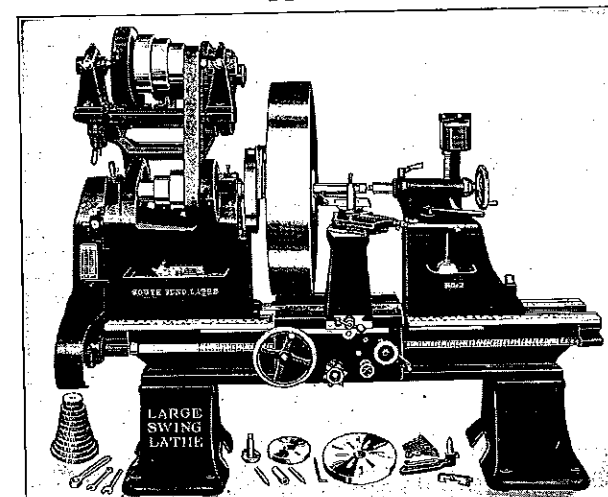
Electrical Equipment included in price of the 16-24-inch Silent Chain Motor Driven Lathe consists of: 1 H.P. 1200 R.P.M. reversing motor; reversing switch; wiring between motor and switch enclosed in flexible metal conduit; the necessary driving belts; and complete directions for wiring.

### Net Factory Prices 16-24-inch Series "O" South Bend General Purpose Lathes

Swing Over Bed Inches	Length of Bed Feet	Distance Between Centers Inches	Swing Over Carriage Inches	Power Required H.P.	COUNTERSHAFT DRIVE LATHES				SILENT CHAIN MOTOR DRIVE LATHES			
					Approx. Weight Crated Pounds	Standard Change Gear Lathe Cat. No.	Quick Change Gear Lathe Cat. No.	Price	Approx. Weight Crated Pounds	Standard Change Gear Lathe Cat. No.	Quick Change Gear Lathe Cat. No.	Price
24 1/4	6	30	17	1	2025	58-C	76-C	\$580.00	2485	358-C	376-C	\$832.00
24 1/4	7	42	17	1	2105	58-D	76-D	601.00	2505	358-D	376-D	853.00
24 1/4	8	54	17	1	2185	58-E	76-E	622.00	2645	358-E	376-E	874.00
24 1/4	10	78	17	1	2345	58-G	76-G	668.00	2805	358-G	376-G	920.00
24 1/4	12	102	17	1	2575	58-H	76-H	733.00	3035	358-H	376-H	985.00
24 1/4	14	126	17	1	2800	58-K	76-K	790.00	3260	358-K	376-K	1042.00

Lathe with 12-foot and 14-foot bed is equipped with center leg which is included in price of the lathe. For 1-phase Instant Reversing Motor, add \$38.00 to above prices. For Direct Current Instant Reversing Motor and Reversing Switch, add \$66.00.

## 36-inch General Purpose Lathe—Countershaft Drive and Motor Drive Supplied in Quick Change Gear and Standard Change Gear Types



36" x 6' South Bend Standard Change Gear, Silent Chain Motor Driven General Purpose Lathe..... \$842.00

The 36-inch General Purpose Lathe, shown at left, is the regular 16-inch South Bend Lathe equipped with permanent raising blocks under the headstock, tailstock and tool rest to increase the swing of the lathe to 36-inches. Repair shops, machine shops and motor service shops find this lathe practical and efficient for all average machine work, as well as occasional turning and boring operations on jobs of large diameter.

Principal Features and Specifications of this lathe are the same (except swing sizes) as those listed under the 16-inch lathe described on page 6.

Equipment Included in Price of the 36-inch General Purpose Lathe: Silent motor drive unit (with motor drive lathes); countershaft (with countershaft drive lathes); large and small face plates; tool post; thread cutting stop; two 60° lathe centers; spindle sleeve; special driver; change gears (with Standard Change Lathes); wrenches; installation plan and book, "How to Run a Lathe."

Electrical Equipment included in price of the 36-inch Silent Chain Motor Driven Lathe consists of: 1 H.P. 1200 R.P.M. reversing motor; reversing switch; wiring between motor and switch enclosed in flexible metal conduit; the necessary driving belts; and complete directions for wiring.

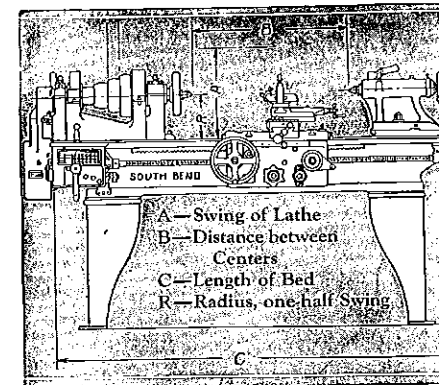
### Net Factory Prices 36-inch Series "O" South Bend General Purpose Lathes

Swing Over Bed Inches	Length of Bed Feet	Distance Between Centers Inches	Swing Over Carriage Inches	Power Required H.P.	COUNTERSHAFT DRIVE LATHES				SILENT CHAIN MOTOR DRIVE LATHES			
					Approx. Weight Crated Pounds	Standard Change Gear Lathe Cat. No.	Quick Change Gear Lathe Cat. No.	Price	Approx. Weight Crated Pounds	Standard Change Gear Lathe Cat. No.	Quick Change Gear Lathe Cat. No.	Price
36 1/4	6	27	17	1	2195	2-C	4-C	\$650.00	2620	302-C	304-C	\$802.00
36 1/4	7	39	17	1	2275	2-D	4-D	671.00	2700	302-D	304-D	823.00
36 1/4	8	51	17	1	2355	2-E	4-E	692.00	2780	302-E	304-E	844.00
36 1/4	10	75	17	1	2515	2-G	4-G	738.00	2940	302-G	304-G	890.00
36 1/4	12	99	17	1	2745	2-H	4-H	803.00	3170	302-H	304-H	1055.00
36 1/4	14	123	17	1	2970	2-K	4-K	860.00	3395	302-K	304-K	1112.00

Lathe with 12-foot and 14-foot bed is equipped with center leg, which is included in price of the lathe. For 1-phase Instant Reversing Motor, add \$38.00 to above prices. For Direct Current Instant Reversing Motor and Reversing Switch, add \$66.00.

## Selecting the Lathe—Erection Plans—Shipping Information

### Selecting the Correct Size of Lathe



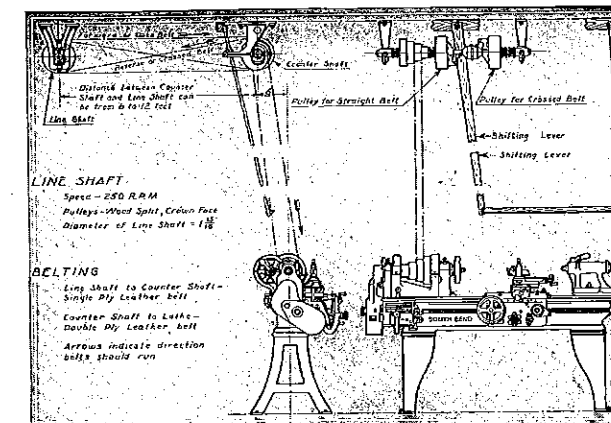
How to Determine the Size of a Lathe

than the dimensions of the largest work to be handled.

The size of a Screw Cutting Lathe is determined by the swing over bed "A", and the length of bed "C". European tool manufacturers determine the size of a lathe by its radius or center distance "R". What the European terms an 8-inch center lathe, United States manufacturers term a 16-inch swing lathe.

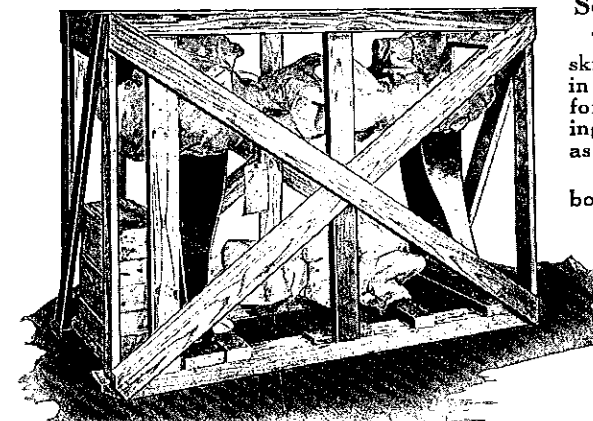
When selecting the size of lathe for your work, take into consideration the largest diameter and the greatest length of the work to be handled as at "A" and "B" in the illustration at left. Then select the lathe that has a swing over bed and distance between centers at least 10% greater

### Installation Plan Blue Prints



The Installation Plan Blue Print gives the principal dimensions of the lathe, location of bolt holes, information on the erection and installation of the lathe, proper speed and size of pulleys, line shaft speed and location of hangers is also given. An installation plan blue print is included with each size and type South Bend Lathe.

### South Bend Lathes Are Packed Carefully for Shipment



Lathe Crated for Domestic Shipment

The illustration at left shows a Series "O" South Bend 16-inch Lathe skidded and crated for domestic shipment, that is, by rail to any point in the United States, Canada or Northern Mexico. In preparing lathes for shipment all finished or polished parts are greased to prevent rusting and each unit is wrapped securely with heavy waterproof paper so as to prevent dust or dirt accumulating in the mechanism.

The lathe is skidded and crated and the small parts are packed in a box which is nailed to the skids.

Lathes for domestic shipment are not knocked down but are crated and shipped completely assembled. All that is necessary on arrival is to remove the crating and wrapping and install the lathe in its proper place.

### We Guarantee Safe Delivery in U. S. A.

We guarantee safe delivery of your South Bend Lathe to the freight depot in your city and protect you against any loss or damage while in transit. In case of accident or theft while in transit on the railroads we will duplicate the shipment as the railroads are responsible for all damages and thefts on their lines.

### Lowest Freight Rates Are Figured

Freight charges on the lathe you select can be closely estimated by using the freight rate from South Bend to the city nearest your shipping point (see list below). The weight of the lathe crated is shown in each lathe price tabulation throughout this catalog.

All shipments are made over the most direct and least expensive route. In long distance shipping to certain sections of the United States our Traffic Department often secures lower freight rates for our customers by the use of consolidated or package car.

### How to Figure Freight Charges

Use the freight rate applying to the city nearest your shipping point—see list of cities below. 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—To find freight charges to Omaha, Neb., on the 9" x 3' Junior Bench Lathe shown on page 26. Freight rate to Omaha, \$1.57 per 100 lbs. Weight of lathe, 375 lbs. Approximate freight charges: 375 lbs. x \$1.57 = \$5.89.

### Approximate Freight Rates From South Bend to Principal Cities

City	State	Rate per 100 lbs.	City	State	Rate per 100 lbs.	City	State	Rate per 100 lbs.
Albuquerque	New Mexico	\$3.66	Fargo	North Dakota	\$1.96	Philadelphia	Pennsylvania	\$1.28
Atlanta	Georgia	1.71	Hartford	Connecticut	1.32	Phoenix	Arizona	4.71
Baltimore	Maryland	1.20	Helena	Montana	4.69	Pittsburgh	Pennsylvania	.84
Boise	Idaho	4.68	Los Angeles	California	5.36	Portland	Oregon	5.36
Boston	Massachusetts	1.36	Louisville	Kentucky	.71	Portland	Maine	1.41
Cedar Rapids	Iowa	1.07	Miami	Florida	2.67	Reno	Nevada	4.69
Charleston	South Carolina	2.00	Memphis	Tennessee	1.68	Richmond	Virginia	1.29
Cheyenne	Wyoming	2.55	Milwaukee	Wisconsin	.60	St. Louis	Missouri	.81
Chicago	Illinois	.48	Minneapolis	Minnesota	1.48	Salt Lake City	Utah	4.57
Cincinnati	Ohio	.68	Montgomery	Alabama	1.73	San Antonio	Texas	3.00
Cleveland	Ohio	.71	Natchez	Mississippi	2.20	San Francisco	California	5.36
Decatur	Illinois	.66	New York	New York	1.32	Seattle	Washington	5.36
Denver	Colorado	2.58	New Orleans	Louisiana	1.99	Sioux Falls	South Dakota	1.77
Detroit	Michigan	.61	Oklahoma City	Oklahoma	2.45	Tampa	Florida	2.43
			Omaha	Nebraska	1.57	Wichita	Kansas	1.97



## Attachments for Series "O" South Bend Lathes

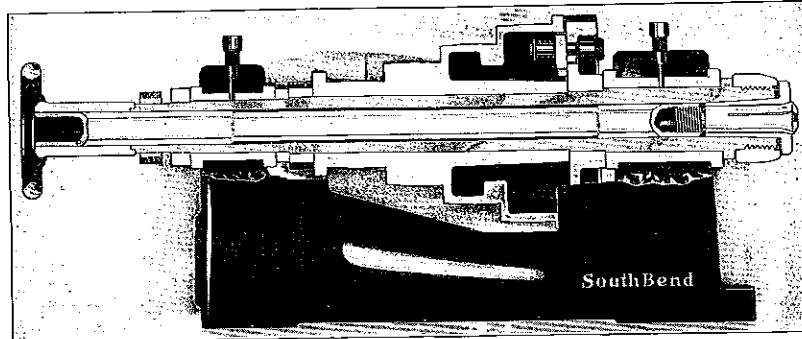
### 38 Practical Lathe Attachments for Each Size Lathe

South Bend Lathes are noted for the number of practical attachments with which they can be equipped to take care of such work as milling, keyway cutting, grinding, turning tapers, etc., in the tool room, manufacturing plant or general machine shop. Most of these attachments may be purchased with the lathe or ordered later when needed. These attachments are illustrated, described and priced on the following pages for each size South Bend Lathe. Many of the attachments listed are designed for use only on South Bend Lathes and cannot be fitted to lathes of other makes.

### Draw-in Collet Chuck Attachments for South Bend Lathes

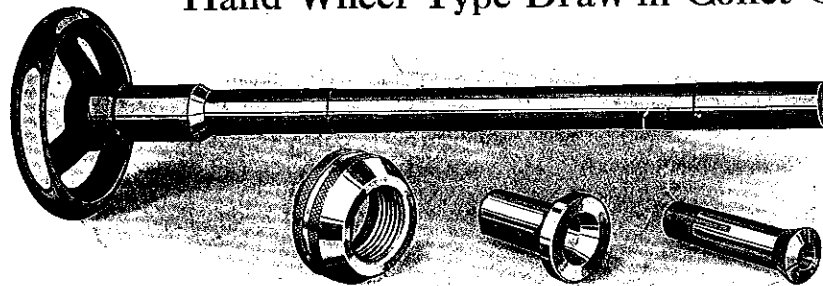
The Draw-in Collet Chuck is used on the lathe in the tool room for making small accurate tools and in the manufacturing plant for making small parts for watches, typewriters, sewing machines, radios, etc. It is the most accurate type of chuck made and will center any small work instantly. The hollow draw bar permits bars and rods to be passed through the lathe spindle and held in the chuck for machining.

The Hollow Draw Bar extends through the lathe spindle and is threaded at one end, which causes the hardened and ground steel split collet to tighten or release the work when the draw bar is rotated.



A Cross Section of the Lathe Headstock Showing Hand Wheel Draw-in Collet Chuck

### Hand Wheel Type Draw-in Collet Chuck Attachment



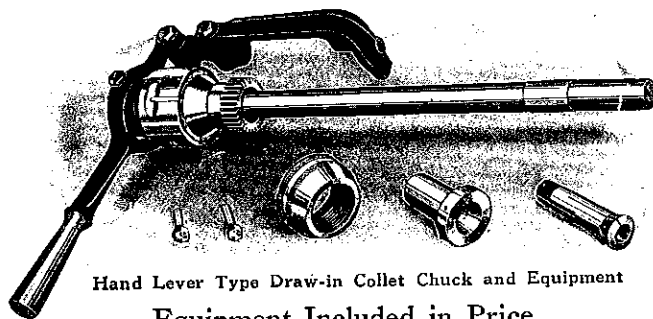
Hand Wheel Type Draw-in Collet Chuck with One Split Collet, Tapered Closing Sleeve, and Nose Cap for Protecting Spindle Nose Threads

Prices of Hand Wheel Draw-in Collet Chuck with One Round Split Collet\*

Size of Lathe	Catalog No.	Hole in Lathe Spindle	Collet Capacity in Sixty-Fourths (for Round Work)	Code Word	Price Complete with One Collet
"Workshop"	4306W	3/4 in.	1/4 in. up to 1/2 in.	Acrut	\$25.00
9 in.	4309	3/4 in.	1/4 in. up to 1/2 in.	Aaron	32.00
11 in.	4311	7/8 in.	1/4 in. up to 1/2 in.	Abode	35.00
13 in.	4313	1 in.	1/4 in. up to 1/2 in.	Abode	40.00
15 in.	4315	1 1/8 in.	1/4 in. up to 1/2 in.	Above	45.00
16 in.	4316	1 1/4 in.	1/4 in. up to 1/2 in.	Adore	50.00
18 in.	4318	1 1/2 in.	1/4 in. up to 1 in.	Adult	55.00

\*For prices of extra collets see page 51.

### Hand Lever Type Draw-in Collet Chuck Attachment



Hand Lever Type Draw-in Collet Chuck and Equipment

#### Equipment Included in Price

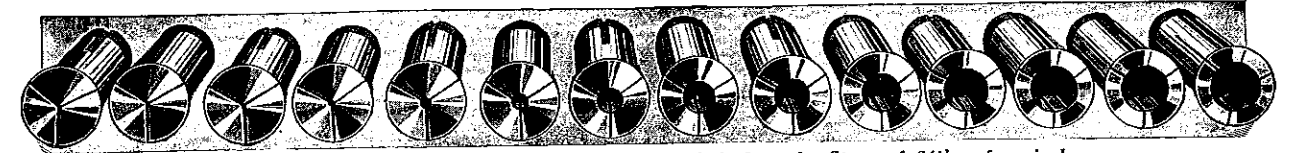
The price of the attachment includes adjustable chuck closing mechanism and hollow draw bar, spindle nose cap and spanner wrench, tapered closing sleeve of tool steel, hardened and ground, and one round split collet of any one size desired up to the maximum capacity of the lathe.

The Hand Lever Type Draw-in Collet Chuck is recommended for rapid production work in manufacturing small interchangeable parts where accuracy and precision are required. This chuck permits releasing and feeding bar stock through the collet without stopping the lathe. This is accomplished by means of an adjustable chuck closer. The gripping action of the collet can be adjusted to any desired tension by regulating the cylinder of the chuck closer.

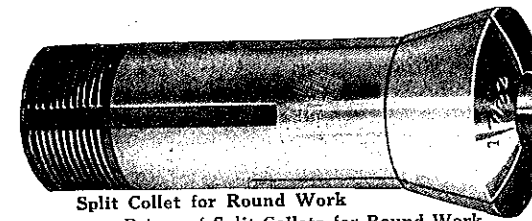
Net Factory Prices of Hand Lever Draw-in Collet Chuck Attachment with One Round Split Collet\*

Size of Lathe	Catalog No.	Hole in Lathe Spindle	Collet Capacity in Sixty-Fourths (for Round Work)	Code Word	Price Complete with One Collet
"Workshop"	5206W	3/4 in.	1/4 in. up to 1/2 in.	Abpat	\$70.00
9 in.	5209	3/4 in.	1/4 in. up to 1/2 in.	Allen	80.00
11 in.	5211	7/8 in.	1/4 in. up to 1/2 in.	Among	90.00
13 in.	5213	1 in.	1/4 in. up to 1/2 in.	Andes	105.00
15 in.	5215	1 1/8 in.	1/4 in. up to 1/2 in.	Askew	120.00
16 in.	5216	1 1/4 in.	1/4 in. up to 1/2 in.	Aster	130.00
18 in.	5218	1 1/2 in.	1/4 in. up to 1 in.	Atoll	160.00

\*For prices of extra collets see page 51.



A Group of Collets with Hole Sizes Ranging from 1/4-inch up by Steps of 64ths of an inch.



Split Collet for Round Work

Prices of Split Collets for Round Work

Size of Lathe	Catalog No.	Hole in Spindle	Collet Capacity in Sixty-Fourths	Code Word	Price Each
Workshop	609-W	3/4 in.	1/4 in. up to 1/2 in.	Catra	\$3.25*
9 in.	609	3/4 in.	1/4 in. up to 1/2 in.	Cabot	3.25*
11 in.	611	7/8 in.	1/4 in. up to 1/2 in.	Cello	3.50*
13 in.	613	1 in.	1/4 in. up to 1/2 in.	Chose	4.00*
15 in.	615	1 1/8 in.	1/4 in. up to 1/2 in.	Civil	4.25*
16 in.	616	1 1/4 in.	1/4 in. up to 1/2 in.	Clear	4.75*
18 in.	618	1 1/2 in.	1/4 in. up to 1 in.	Comet	5.00*

\*Price of Split Collets 1/4", 3/8", and 1/2" capacity by 64ths, \$0.50 extra. No. 609 1/2"-Special Collet for 1/2" hole in 9-inch lathes, has 3/4-inch hole in front end for holding jewelers' Planer Blanks, \$3.75. No. 611 1/2"-Special Collet for 11-inch lathes, 3/4" capacity, \$4.00. No. 613 1/2"-Special Collet for 13-inch lathes, 1" capacity, \$4.50.

### Split Collets for Round Work

#### Used in Draw-in Collet Chuck Attachments

Split Collets for round work, as illustrated at left, are widely used for manufacturing and in the tool room. Collets for Draw-in Collet Chuck Attachments used on all South Bend Lathes are made of tool steel, hardened and tempered. They are ground both outside and inside to insure accuracy. The left end is threaded for the hollow draw bar of the draw-in chuck and has a keyway to prevent the collet from turning while holding the work. The other end is tapered to conform to the tapered closing sleeve of the attachment. Three slots divide the tapered end of the collet into segments. This permits the collet to grip or release the work as it is drawn in or released from the tapered closing sleeve in the lathe spindle.



Cross Section View of Split Collet showing its accurate construction

### Range of Collet Sizes for South Bend Lathes

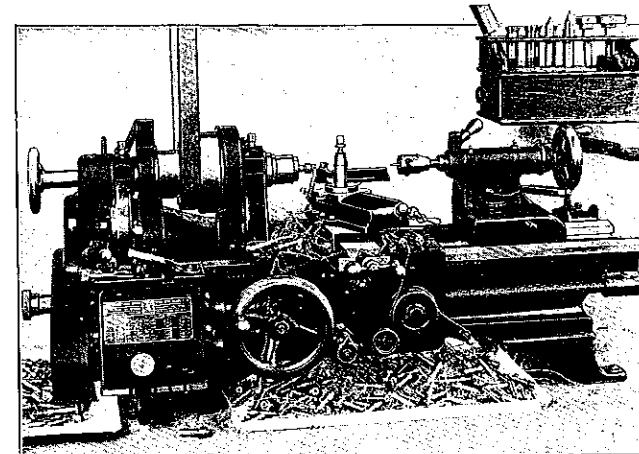
Collets for round work can be supplied with standard hole sizes ranging from 1/4-inch hole diameter up by 64ths, 32nds and 16ths of an inch to the capacity of the hollow draw bar of the draw-in chuck attachment. A separate collet must be used for each step of increase or decrease of diameter of the work. For example a 1/4-inch round split collet will hold work that is exactly .250-inch in diameter or .001-inch undersize (.249-inch diameter). For larger or smaller work, additional collets will be required.

Round Collets with Special Hole Sizes. Collets for round work with holes measured in thousandths of an inch or in millimeters, also collets for odd diameter drills and wire gauges, can be supplied for each size South Bend Lathe at an additional charge of \$0.50 each. For example: A collet with standard hole size for the 13-inch lathe is priced above at \$4.00. The same collet with special hole size will be \$4.50.

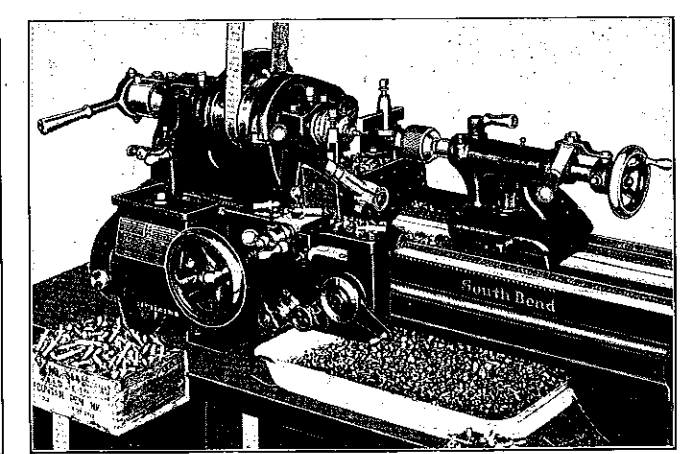


#### Special Split Collets

The illustrations above show three special split collets for holding square, hexagonal or round stock. Prices quoted on request.

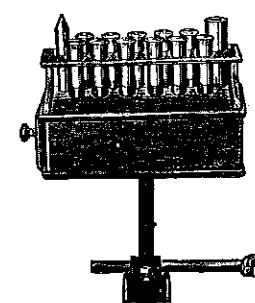


9-inch South Bend Bench Lathe Equipped with a Hand Wheel Draw-in Collet Chuck Attachment for Manufacturing Small Screws



Forming and Cutting-Off Duplicate Parts Held in the Hand Lever Type Draw-in Collet Chuck Attachment

### Collet Cabinet and Bracket



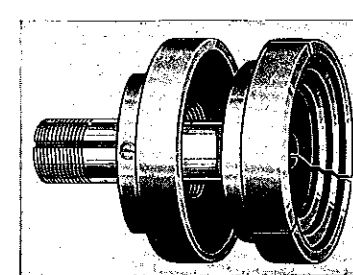
Collet Cabinet and Bracket

Holds collets, centers, wrenches, small tools, etc. Made of oak, finished in natural color with two coats of shellac. Price includes cabinet, rack for holding draw bar of draw-in collet chuck, and bracket for attaching cabinet to lathe. Collets shown are not included in price of cabinet.

Prices of Collet Cabinet and Bracket

Size Lathe	Cat. No.	Code	Price
"Workshop"	1078W	Cuyjd	\$12.00
9 in.	1081	Caged	12.00
11 in.	1082	Crome	12.00
13 in.	1083	Cnoke	12.00
15 in.	1084	Cnaul	15.00
16 in.	1085	Cadro	15.00
18 in.	1086	Catch	15.00

### Step Chuck and Closer



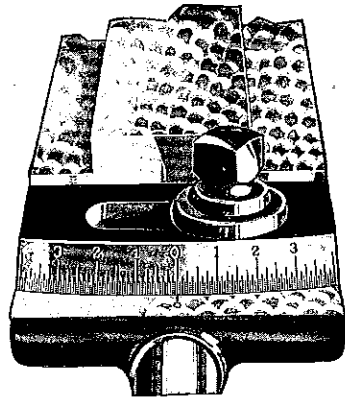
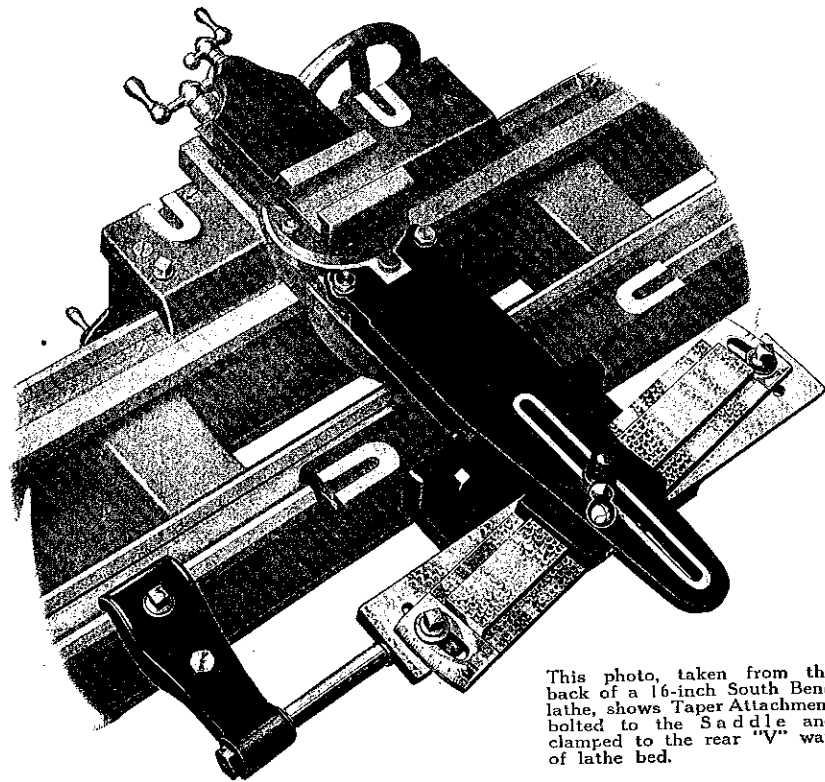
Step Chuck and Closer for Holding Discs and Other Round Flat Work

The step chuck is used for rapid and accurate chucking of gear blanks and other round work. Operates similar to the split collets described above and is used with either hand wheel or hand lever type draw-in chuck mechanism.

Step chucks are supplied to order, either stepped and ready to use or blanks which are split but not stepped and may be bored to the required diameter. Step chucks are made of steel, cast iron, or brass. Prices on application.

## Graduated Taper Attachment for South Bend Lathes

### For Turning and Boring All Classes of Taper Work



Close-up of Graduation  
On End of Swivel Bar

The Swivel Bar, which controls the Taper, is graduated—one end in inches per foot of taper and the other end in degrees. The attachment can be set for any Taper up to 3 inches per foot.

This photo, taken from the back of a 16-inch South Bend lathe, shows Taper Attachment bolted to the Saddle and clamped to the rear "V" way of lathe bed.

The Taper Attachment is used for tool room work, manufacturing and production work for turning and boring all classes of taper work. It is especially practical on production work where a large number of duplicate parts are to be tapered machined by turning or boring. The attachment may be left on the lathe at all times when doing either taper or straight work. It requires only a couple of minutes to change the taper attachment from straight to taper machining or vice versa. The attachment is of the same general design for each size lathe, differing only in dimension.

### Fitting the Taper Attachment

It is advisable to order the Graduated Taper Attachment with the lathe so that it can be accurately fitted at factory; however, it can be purchased and fitted by the customer any time after the lathe is in operation in his shop as the back of the saddle is planed and drilled to receive it.

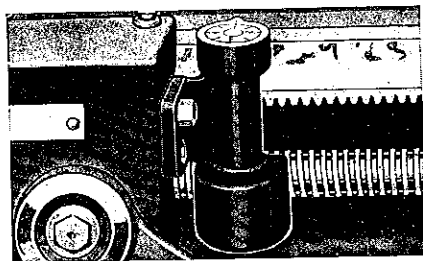
### Attachment Operates Entire Length of Bed

The Taper Attachment is bolted to the Lathe carriage and can be set for taper turning or boring at any position along the entire length of the lathe bed. The Attachment does not interfere with straight turning as it does not operate unless the clamp on the back "V" of the bed is locked.

#### Net Factory Prices of Graduated Taper Attachment

Size of Lathe	Catalog No.	Maximum Taper			Approx. Shipping Weight	Code Word	Price Attachment
		At One Setting	Per Foot	In Degrees			
*Workshop 9 in.	428-W	7 in.	3 in.	14	35 lbs.	Hapwo	\$45.00
11 in.	209	9 in.	3 in.	14	40 lbs.	Dashe	55.00
13 in.	211	9 in.	3 in.	14	50 lbs.	Devor	65.00
15 in.	213	10 in.	3 in.	14	65 lbs.	Digit	75.00
16 in.	215	10 in.	3 in.	14	80 lbs.	Doted	85.00
18 in.	216	12 in.	3 in.	14	100 lbs.	Dress	90.00
18 in.	218	12 in.	3 in.	14	120 lbs.	Dunns	100.00

\*Must be fitted to lathe in our factory.

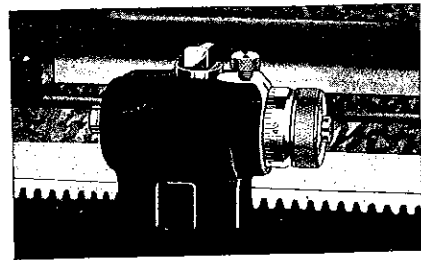


### Thread Dial Indicator

This attachment eliminates the necessity of reversing the lathe to return the carriage to the starting point to catch the thread at the beginning of each successive cut that is taken. The dial is numbered and graduated to show when to clamp the half-nuts on the lead screw for the next cut.

#### Prices of Thread Dial Indicator

Size of Lathe	Cat. No.	Code Word	Price	Size of Lathe	Cat. No.	Code Word	Price
Workshop 9 in.	810-W	Adnok	\$5.00	13 in.	813	Advis	\$11.00
11 in.	809	Abast	9.00	15 in.	815	Aesop	12.00
13 in.	811	Acres	10.00	16 in.	816	Aflot	13.00
				18 in.	818	Agrot	15.00

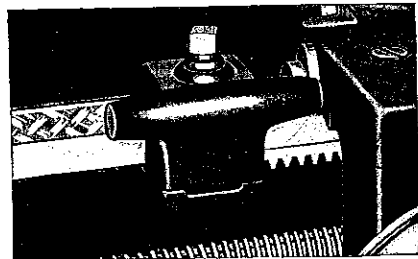


### Micrometer Carriage Stop

This attachment is useful in accurate facing, turning, boring, etc. It is used for stopping the carriage at any point along lathe bed. Can be used on either side of carriage. Has a micrometer adjustment. The stop is hardened on both ends and may be locked for doing duplicate work.

#### Prices of Micrometer Carriage Stop

Size of Lathe	Cat. No.	Code Word	Price	Size of Lathe	Cat. No.	Code Word	Price
Workshop 9 in.	968W	Capys	\$8.00	13 in.	973	Chain	\$13.00
11 in.	971	Calet	11.00	15 in.	974	Chgar	14.00
13 in.	972	Ceded	12.00	16 in.	975	Climb	15.00
				18 in.	976	Coral	17.00



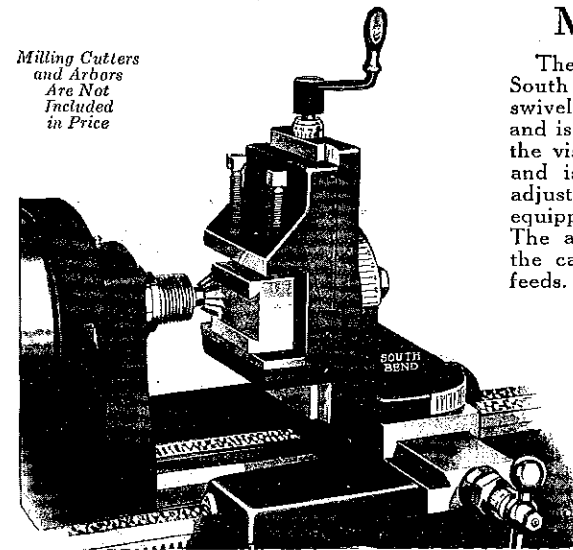
### Plain Carriage Stop

A practical and inexpensive carriage stop for general facing, turning, boring, etc. Can be used on either side of carriage, at any point along the lathe bed. Attachment has positive clamp with collar screw which locks stop to front V-way of bed without marring the hand-scraped surface.

#### Prices of Plain Carriage Stop

Size of Lathe	Cat. No.	Code Word	Price	Size of Lathe	Cat. No.	Code Word	Price
Workshop 9 in.	758-W	Takaro	\$2.25	13 in.	754	Takro	\$3.00
11 in.	752	Takut	2.50	15 in.	755	Takvy	3.50
13 in.	753	Takre	2.75	16 in.	756	Taklt	4.00
				18 in.	757	Talov	4.50

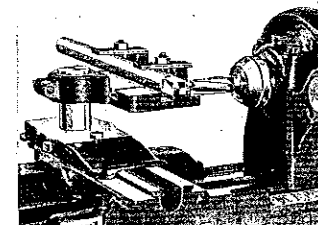
Milling Cutters and Arbors Are Not Included in Price



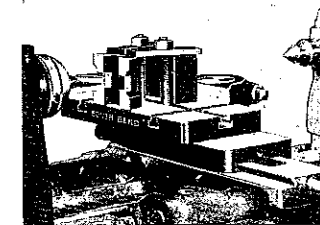
Milling a Dovetail on a Lathe Using the Milling Attachment

#### Net Factory Prices of Milling and Keyway Cutting Attachment

Size of Lathe	Cat. No.	Vertical Feed	Cross Feed	Vise Will Hold	Depth of Jaws	Width of Jaws	Weight Each	Code Word	Price Each
Workshop 9 in.	9-W	2 1/2 in.	5 1/2 in.	1 1/2 in.	1 1/2 in.	3 in.	13 lbs.	Vabif	\$35.00
11 in.	1	3 in.	7 in.	1 3/4 in.	1 1/2 in.	3 1/2 in.	25 lbs.	Vagon	45.00
13 in.	2	4 in.	8 in.	1 3/4 in.	1 1/2 in.	3 1/2 in.	30 lbs.	Valet	50.00
15 in.	3	4 1/2 in.	9 in.	2 1/2 in.	1 1/2 in.	4 1/2 in.	40 lbs.	Victo	55.00
16 in.	4	6 in.	9 1/2 in.	4 in.	2 in.	5 1/2 in.	50 lbs.	Visit	65.00
18 in.	5 1/2	6 1/2 in.	14 in.	4 in.	2 in.	5 1/2 in.	75 lbs.	Varen	75.00
								Voxar	90.00



Squaring End of Steel Shaft



Milling Face of Bronze Bearing

### Milling and Boring Table for Lathe

The adjustable milling and boring table is practical for light milling, boring, keyway cutting, squaring end of shafts, 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 1/8" bolts. Table size 3 1/2" x 7 1/2". Maximum distance from table top to center line of lathe 13 1/2". Clamps and bolts not furnished.

No. 904, Milling and Boring Table for 9-inch Workshop Lathes, Code Word, "Yason." Ship. Wt. 8 lbs. .... \$12.50

### Milling Cutters and Arbors for Milling Attachment

#### Plain Milling Cutters

Made of High Speed Steel, hardened and ground. Cut on face only. Have standard keyway.

#### Net Factory Prices of Plain Milling Cutters

Cat. No.	Face Width	Cutter Diam.	Hole Diam.	Price Each
849-A	1/2 in.	2 1/2 in.	1 in.	\$1.85
849-B	1/2 in.	2 1/2 in.	1 in.	2.45
849-C	1/2 in.	2 1/2 in.	1 in.	2.50
849-D	1/2 in.	2 1/2 in.	1 in.	2.75
849-E	1/2 in.	2 1/2 in.	1 in.	2.95
849-F	1/2 in.	2 1/2 in.	1 in.	3.05
849-G	1/2 in.	2 1/2 in.	1 in.	3.35
849-H	1/2 in.	2 1/2 in.	1 in.	3.60

#### Side Milling Cutters

Made of High Speed Steel, hardened and ground. Cut on face and both sides. Have standard keyway.

#### Net Factory Prices of Side Milling Cutters

Cat. No.	Face Width	Cutter Diam.	Hole Diam.	Price Each
850-A	1/2 in.	3 in.	1 in.	\$3.90
850-B	1/2 in.	3 in.	1 in.	4.15
850-C	1/2 in.	3 in.	1 in.	4.35
850-D	1/2 in.	3 in.	1 in.	4.55
850-E	1/2 in.	3 in.	1 in.	4.80
850-F	1/2 in.	3 in.	1 in.	5.00
850-G	1/2 in.	3 in.	1 in.	5.20
850-H	1/2 in.	3 in.	1 in.	5.40

#### Collet Chuck for Woodruff Cutters

Made of High Speed Steel, hardened and ground. Have straight shanks 1/2-inch in diameter. Right-hand cutters only are carried in stock. Prices of left-hand cutters quoted on request.

Size of Lathe	0" W.S.*	9"	11"	13"	15"	16"	18"
Cat. No.	101-W	101-A	102-A	103-A	104-A	105-A	106-A
Price	\$3.50	\$3.50	\$3.50	\$4.00	\$4.00	\$4.00	\$4.00

\*9-inch Workshop Lathe.

#### Arbor for Side and Plain Milling Cutters



For holding cutters with standard 1-inch hole. Capacity between nut and shoulder is 1 1/2 inches. Three spacing collars and hardened nut are furnished with each arbor. The Arbor Shank is ground to fit the head spindle of the lathe.

#### Net Factory Prices of Arbors for Milling Cutters

Size of Lathe	Cat. No.	Morse Taper	Price Each	Size of Lathe	Cat. No.	Morse Taper	Price Each
Workshop 9 in.	109-W	No. 3	\$5.00	15 in.	115-M	No. 3	\$5.00
11 in.	109-M	No. 3	5.00	16 in.	116-M	No. 3	5.00
13 in.	111-M	Special	5.00	18 in.	118-M	No. 3	5.00

#### Woodruff System Keyway Cutters



Made of High Speed Steel, hardened and ground. Have straight shanks 1/2-inch in diameter. Right-hand cutters only are carried in stock. Prices of left-hand cutters quoted on request.

#### Net Factory Prices Woodruff System Milling Cutters

Cat. No.	Diam.	Width	Price Each	Cat. No.	Diam.	Width	Price Each
897-A	1/2 in.	1 in.	\$1.70	897-I	1 in.	1/2 in.	\$2.30
897-B	1/2 in.	1 in.	1.70	897-J	1 in.	1/2 in.	2.40
897-C	1/2 in.	1 in.	1.70	897-K	1 in.	1/2 in.	2.55
897-D	1/2 in.	1 in.	1.85	897-L	1 in.	1/2 in.	2.55
897-E	1/2 in.	1 in.	1.85	897-M	1 in.	1/2 in.	2.65
897-F	1/2 in.	1 in.	2.05	897-N	1 in.	1/2 in.	2.75
897-G	1/2 in.	1 in.	2.05	897-O	1 in.	1/2 in.	2.75
897-H	1/2 in.	1 in.	2.30	897-P	1 in.	1/2 in.	2.95

#### Spiral End Mills

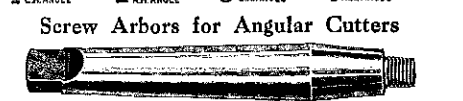
High Speed Steel, hardened and ground. Furnished in right-hand cut, left-hand spiral only.

Cat. No.	Diam.	Morse Taper	Price Each	Cat. No.	Diam.	Morse Taper	Price Each
888-A	1/2 in.	No. 2	\$2.00	870-A	1/2 in.	No. 3	\$4.20
888-B	1/2 in.	No. 2	2.95	870-B	1/2 in.	No. 3	4.20
888-C	1/2 in.	No. 2	2.95	870-C	1/2 in.	No. 3	4.40
888-D	1/2 in.	No. 2	3.45	870-D	1/2 in.	No. 3	6.05
888-E	1/2 in.	No. 2	3.95	870-E	1/2 in.	No. 3	5.75

#### Angular Cutters with Threaded Holes

Furnished R.H. or L.H. angle and with either R.H. or L.H. threaded hole. Have 60° included angle. When ordering specify whether style No. 1, 2, 3 or 4 is wanted.

Cat. No.	Diam.	Thick-ness	Hole	Thread	Price per In. Each
687	1 1/2"	1/2"	3/8"	24 NF	\$3.25



#### Screw Arbors for Angular Cutters

When ordering arbor only give catalog number and style number of cutter the arbor is to be used with.

No. 820-A. Arbor for Workshop and 9" lathes... \$2.00

No. 820-B. Arbor for 11" lathes... 2.00

No. 820-C. Arbor for 13", 15", 16", 18" lathes... 2.00

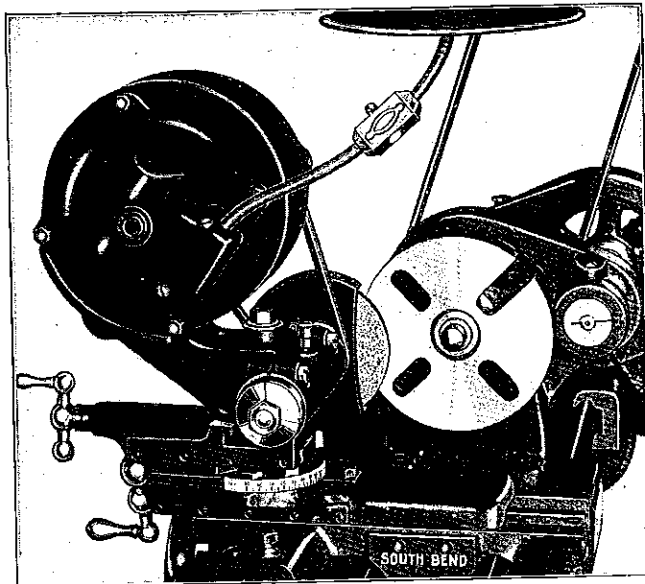
SOUTH BEND, INDIANA, U. S. A.

53



## No. 75 Electric Grinder for South Bend Lathes

### For Grinding Hardened or Tempered Tools and Parts



No. 75 Electric Grinder Mounted on Compound Rest of Lathe

The No. 75 Electric Grinder makes a valuable addition to the screw cutting lathe in any shop that is not equipped with a modern tool room cutter and reamer grinder. It is practical for grinding straight, taper or spiral 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.

### Operates from Electric Light Socket

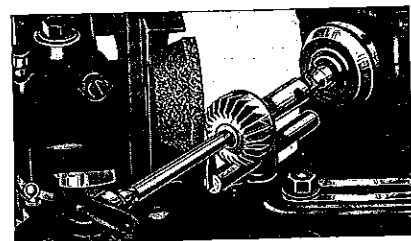
Price of grinder includes 1-phase, 60-cycle, 110-volt, A.C. motor. If 3-phase motor or D.C. motor is wanted add \$13.00 to prices shown. When ordering specify voltage and current required.

### Equipment for Grinder

Prices include 1/4 H.P. motor, V-belt, belt guard, one Alundum grinding wheel (Grain 46-N, Grade 5-B), extension cord, switch, and clamp for mounting to compound rest.

### Net Factory Prices of No. 75 Electric Grinder

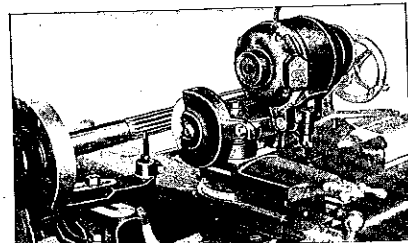
Size of Lathe	Cat. No.	Size Grind. Wheel	Diam. Will Grind	Motor Speed R.P.M.	Spindle Speed R.P.M.	Code Word	Price, Each
Workshop	75-W	4"x1 1/2"	1 1/2 in.	1725	4000	Gyfax	\$40.00
9 in.	75-B	4"x1 1/2"	5/8 in.	1725	4000	Gyfeb	50.00
11 in.	75-C	4"x1 1/2"	7/8 in.	1725	4000	Gyfi	55.00
13 in.	75-D	4"x1 1/2"	9 in.	1725	4000	Gyfi	55.00
15 in.	75-E	4"x1 1/2"	10 1/2 in.	1725	4000	Gyfi	60.00
16 in.	75-F	4"x1 1/2"	11 in.	1725	4000	Gyfi	60.00
18 in.	75-G	4"x1 1/2"	12 1/2 in.	1725	4000	Gyfi	60.00
18 in.	75-H	4"x1 1/2"	12 1/2 in.	1725	4000	Gyfsp	60.00



Sharpening a Valve Seat Reamer

### Sharpening a Valve Seat Reamer

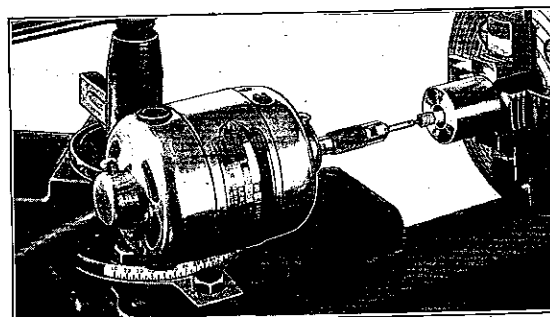
Valve seat reamers of any angle, valve seat counterboring cutters, valve guide reamers, straight and taper reamers and adjustable reamers can be sharpened quickly and accurately in the lathe using the No. 75 Electric Grinder priced above.



Sharpening a Straight Reamer

### Sharpening a Straight Reamer

The illustration shows lathe and grinder set up for sharpening a straight reamer, using the No. 75 Electric Grinder, adjustable holding fixture, spring cutter stop, and regular grinding wheel. A cup grinding wheel may also be used for this work.



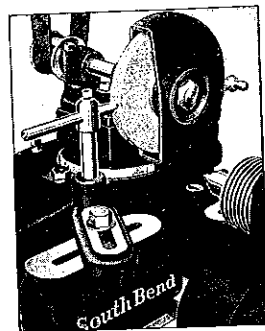
Light Duty Electric Grinder Fitted to Tool Post of Lathe

## Light Duty Electric Grinder

This light weight grinder for the lathe does internal and external grinding to the finest limits. It is attached to tool post of lathe by means of a special shank which is adjustable for different centers. Motor is of the universal type. Maximum speed 20,000 R.P.M. Full load speed 10,000 R.P.M. A specially designed collet chuck attached direct to armature shaft takes round shank 3/8" to 3/4" in size. Chuck will accommodate drills from No. 42 to No. 22 inclusive. Equipment: 6 mounted pencil wheels, for finish work: No. 60 Grit, No. 0 Grade, 1x1/8"; 3/4x1/8"; 1/2x1/4"; 1/4x1/4"; 1/8x1/4"; 1/8x1/8" diameter; two wrenches, 8-ft. rubber covered cord, molded rubber plug and switch. Net weight 2 lbs.

No. 166, Light Duty Electric Grinder for Workshop, 9-inch and 11-inch Lathes. Code word "Obpol." Price.....\$24.00

## Adjustable Holding Fixture for Diamond Dresser



Truing a Grinding Wheel with a Dresser Mounted in Holding Fixture

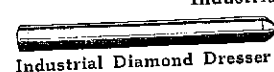
The No. 19 Adjustable Holding Fixture, as illustrated at left, will hold the industrial diamond dresser for truing grinding wheels and will also hold the reamer and cutter stop which is supplied with the fixture.

The fixture clamps directly to the bed of the lathe so that the carriage has free movement both when truing grinding wheels and sharpening reamers and cutters.

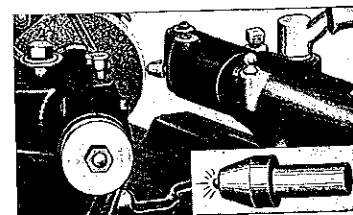
### Net Factory Prices of Adjustable Holding Fixture

Size of Lathe	Workshop	9 in.	11 in.	13 in.	15 in.	16 in.	18 in.
Catalog No.	19-W	19	19-B	19-C	19-D	19-E	19-F
Code Word	Almog	Quene	Quarz	Quest	Quick	Quirt	Quota
Price, Each	\$8.00	\$8.00	\$9.00	\$10.00	\$12.00	\$13.00	\$15.00

### Industrial Diamond Dresser



No. 18, Industrial Diamond, special metal mount, 1/4 carat. Code word "Quaft." Price each.....\$6.00



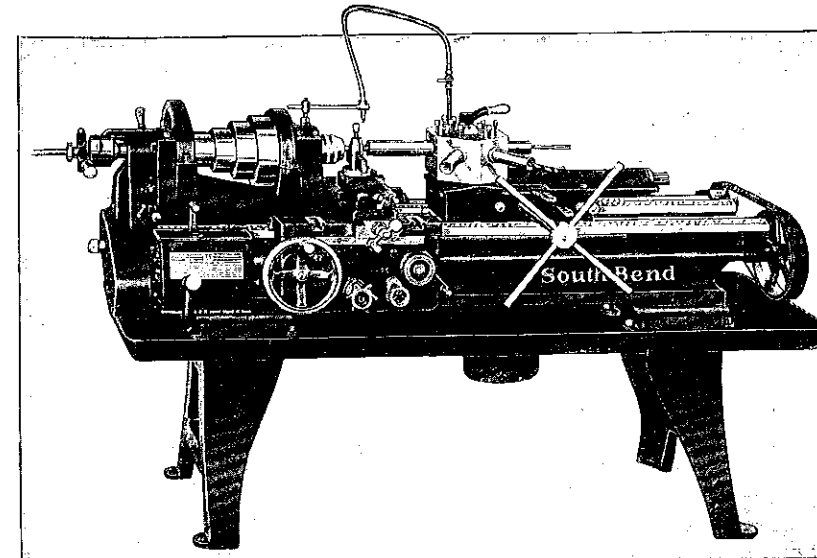
### Diamond Holding Fixture

Clamps to tail-spindle. Holds No. 406 diamond dresser for truing grinders used for valve or general work.

Size of Lathe	Cat. No.	Code Word	Price Each	Size of Lathe	Cat. No.	Code Word	Price Each
W.S.	401-W	Kibat	\$2.00	13 in.	401-D	Kirav	\$2.75
9 in.	401-B	Kipet	2.25	15 in.	401-E	Kirix	3.25
11 in.	401-C	Kipet	2.25	16 in.	401-F	Kiroz	3.50
No. 406, Diamond Dresser, Code "Kirwe"			\$6.00				

\*9-inch Workshop Lathes.

## The South Bend Lathe Equipped for Manufacturing Work



16-inch South Bend Lathe Equipped with Special Attachments for Production Work

The South Bend Back-Geared, Screw Cutting Lathe can be fitted with practical attachments and used for manufacturing operations. A lathe thus equipped serves the purpose of a special machine and when the attachments are removed, the lathe can be used for regular work. Many modern industrial plants are using lathes in groups on production work in manufacturing.

The Back-Geared, Screw Cutting Lathe is a universal tool which can be equipped at a small expense with a set of tools for manufacturing operations and machining duplicate parts. Any size South Bend Lathe, from 9-inch to 18-inch swing inclusive, may be equipped with attachments for production work. For prices of attachments see pages 50 to 63.

If you will specify the product you wish to manufacture, our Engineering Department will be glad to assist you in selecting the proper class of attachments for doing the work and give you any other information you may desire. Our thirty years of experience in this work is at your service.

## Oil Pans and Chip Pans for Lathes

Pressed steel oil pans and chip pans are of heavy one-piece construction. Oil pans are used on regular floor leg lathes. See illustration above. Chip pans are used on Underneath Belt Motor Driven Lathes. See page 5. Pans should be fitted to lathe at factory. Prices are for pans and special legs instead of regular legs.

### Prices of Oil Pans for Straight and Gap Bed Floor Leg Lathes

Size of Lathe	Cat. No.	LENGTH OF BED									
		3'	3 1/2'	4'	4 1/2'	5'	5 1/2'	6'	7'	8'	10'
9" W.S.	274	\$19	\$20	\$21	\$22	...	...	...	...	...	...
9 in.	282	20	21	22	23	...	...	...	...	...	...
11 in.	284	25	26	27	...	\$29	\$30	...	...	...	...
13 in.	286	...	...	35	...	38	...	\$41	\$44	\$47	...
15 in.	288	...	...	...	...	45	...	49	53	57	\$65
16 in.	289	...	...	...	...	...	...	50	55	60	70
18 in.	294	...	...	...	...	...	...	55	60	65	75
Code		Oasis	Oback	Odium	Often	Ohern	Oekon	Okres	Olean	Omens	Oaleh

### Prices of Chip Pans for Underneath Belt Motor Driven Lathes

9 in.	134	\$14	\$15	\$16	\$17	...	...	...	...	...	...
11 in.	135	17	18	19	...	\$21	\$22	...	...	...	...
13 in.	136	...	...	24	...	27	...	\$30	\$33	\$36	...
16 in.	137	...	...	...	...	30	...	34	38	42	\$50
18 in.	138	...	...	...	...	...	...	35	40	45	55
18 in.	139	...	...	...	...	...	...	37	42	47	57
Code		Bonny	Bonak	Bonul	Bopah	Bonga	Boplk	Boplo	Bopny	Bopol	Bopum

\*9-inch "Workshop" Lathes.

## Oil Pump, Reservoir and Piping

### For Countershaft Drive and Silent Motor Drive Lathes

Prices below include geared oil pump, reservoir and piping. A leather belt for driving pump is supplied with motor drive lathes. The flexible piping permits nozzle to travel with lathe carriage and transmit the coolant to cutting tool. Reservoir is made of cast iron, has a screened top and a plug in bottom for drainage. See prices of oil pan at left.

### Net Factory Prices

Size of Lathe	"Workshop"	9 in.	11 in.	13 in.	15 in.	16 in.	18 in.
Catalog No.	1060	1051	1052	1053	1054	1055	1056
Code Word	Balpi	Habit	Hedge	Heron	Hopes	Huber	Hymen
Price, Complete	\$35.00	\$35.00	\$35.00	\$40.00	\$40.00	\$45.00	\$45.00

## Oil Pump, Reservoir and Piping

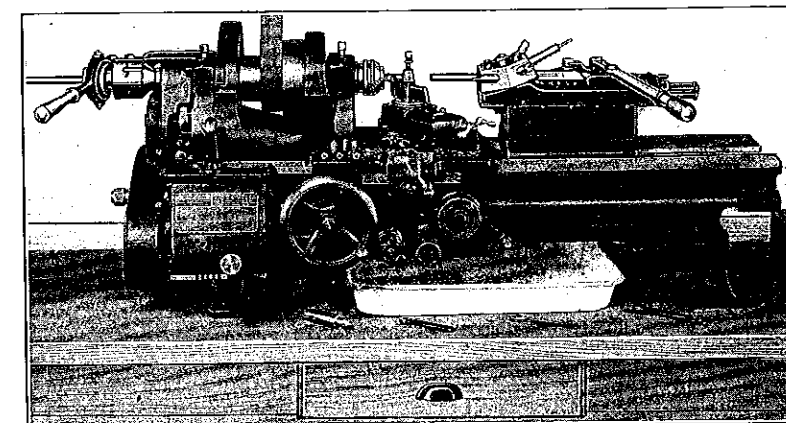
### For Underneath Belt Motor Drive Lathes

The prices shown below include geared oil pump, reservoir, back splash pan and special fittings around headstock and gear box together with special flexible drive shaft for pump. Prices do not include chip pan—see tabulation at left.

### Net Factory Prices

Size of Lathe	9" W.S.	9 in.	11 in.	13 in.	15 in.	16 in.	18 in.
Catalog No.	Not Supplied	1720	1727	1728	1729	1730	1731
Code Word		Pazel	Pebit	Perox	Pevar	Pobat	Porax
Price		\$90.00	\$90.00	\$100.00	\$100.00	\$100.00	\$125.00

## South Bend Bench Lathes Equipped for Manufacturing



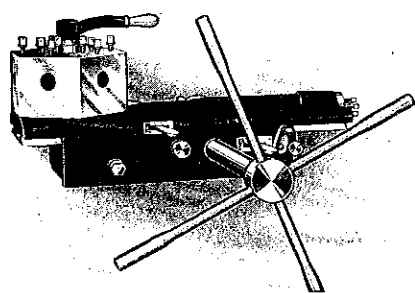
9-inch South Bend Bench Lathe Equipped with a Hand Lever Draw-in Collet Chuck Attachment and Hand Lever Bed Turret for Quantity Production of Small Accurate Parts.

The ready adaptability of the South Bend Bench Lathe for use in manufacturing plants of all kinds is recognized by leading engineers and production superintendents. It is a common sight in many of the large plants to find one mechanic operating two or more South Bend Bench Lathes on production work.

Many manufacturers have installed the South Bend Bench Lathe in batteries of 2 to 50 in their plants where a variety of small accurate parts are produced in large quantities. The wide application of the lathe for production on various classes of work and its ease and simplicity of operation make it the ideal tool for the modern manufacturing plant.

For low first cost and economy of operation and upkeep, little or no equipment can compare with the small Back-Geared, Screw Cutting Lathe for certain manufacturing operations.

## Attachments and Accessories for South Bend Lathes



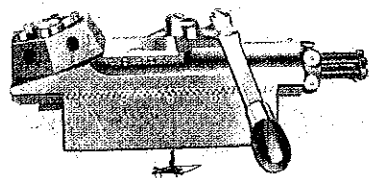
### Semi-Automatic Turnstile Bed Turret

The Turnstile Bed Turret revolves automatically one-sixth of a turn on the return stroke of each hand revolution of the turnstile. Adjustable stops for each of the six faces of the turret regulate the depth of each tool operation. The feed of the turret slide is controlled by turning the turnstile by hand. Power feed is extra. Prices on request.

#### Prices of Turnstile Bed Turret (Hand Feed)

Size of Lathe	Cat. No.	Hole Size Finished	Hole, Center to Slide Top	Max. Feed	Code Word	Price Not Fitted*	Price Fitted*
15 in.	415	1 in.	2 1/2 in.	9 in.	Right Flown	\$275.00	\$300.00
16 in.	416	1 1/8 in.	2 1/2 in.	9 in.	Right Flown	275.00	300.00
18 in.	418	1 1/2 in.	2 1/2 in.	12 in.	Right Flown	330.00	365.00

\*Price includes fitting turret to lathe bed only. Finish boring of the six turret holes is \$6.00 extra.



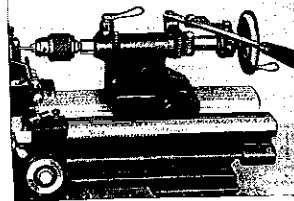
### Hand Lever Bed Turret

The Semi-Automatic Hand Lever Bed Turret automatically indexes one-sixth of a turn by the backward movement of the hand lever. Adjustable stops are provided for each of the six faces of the turret for regulating the depth of each tool. The feed of the turret slide is controlled by the hand lever. Power feed cannot be supplied. Price of turret includes special turret base.

#### Prices of Semi-Automatic Bed Turret

Size of Lathe	Cat. No.	Std. Turret Hole	Length Max. Turret Base	Code Word	Price Not Fitted*	Price Fitted*
9 in.	1509	5/8 in.	9 1/4 in.	4 1/4 in. Jaber	\$217.50	\$225.00
11 in.	1511	5/8 in.	9 1/4 in.	4 1/4 in. Jaber	217.50	230.00
13 in.	1513	5/8 in.	9 1/4 in.	4 1/4 in. Jaber	217.50	235.00

\*Price includes fitting turret to lathe bed only. Finish boring of the six turret holes is \$6.00 extra. Finish boring turret holes can be done either in our factory or in your own shop.



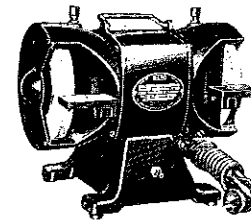
### Hand Lever Tailstock

This is a practical lathe attachment for quantity centering and drilling operations in manufacturing production work. Either the hand lever or the hand wheel may be used. Prices are for the hand lever tailstock in lieu of the regular tailstock. Attachment must be fitted to lathe at factory.

#### Prices Hand Lever Tailstock

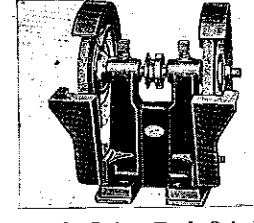
Size Lathe	9" W.S.	9 in.	11 in.	13 in.
Cat. No.	510	900	901	902
Code Word	Jibet	Jiden	Jilat	Jebet
Price	\$30.00	\$35.00	\$37.00	\$40.00

## Tools, Attachments and Accessories for South Bend Lathes



Electric Tool Grinder

**Electric Tool Grinder**  
A high grade bench grinder for grinding tool bits, drills, etc. Has 1/4 H.P. 1-ph., 60 cy., 110-V., A.C. ball bearing motor, 3450 R.P.M.; 2 abrasive wheels, 6"x1/2"x1/2", 60 and 36 grit; 2 wheel guards; 2 rests; switch; 10-ft. cord and plug.  
No. 655. Code, "Jadax." Shipping wt. 54 lbs. ....\$16.50



V-Belt Drive Tool Grinder

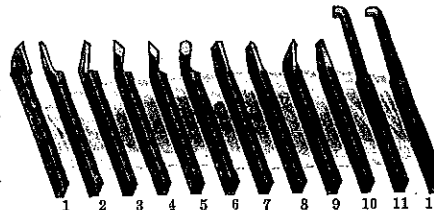
### Tool Grinder (V-Belt Drive)

A practical bench grinder for the mechanic who wishes to furnish his own driving motor and equipment. Grinds tool bits, drills, etc. Price includes 2 abrasive wheels, 6"x1/2"x1/2", 60 and 36 grit; 2 guards and rests. Cat. No. 710-B. "Jerub." Shipping wt. 13 lbs. ....\$6.00

### Hand Forged Lathe Tools

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.

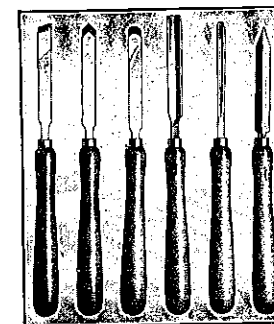
1. L. H. Side Tool
2. R. H. Side Tool
3. R. H. Bent Tool
4. R. H. Diamond Point
5. L. H. Diamond Point
6. Round Nose Tool
7. Cutting-Off Tool
8. Threading Tool
9. Bent Threading Tool
10. Roughing Tool
11. Boring Tool
12. Inside Threading Tool



#### Net Factory Prices of Hand Forged Lathe Tools

Size of Lathe, Inches	Size of Shank, Inches	Carbon Steel				High Speed Steel			
		Single Tool		Set of 12		Single Tool		Set of 12	
		Cat. No.	Price	Cat. No.	Price	Cat. No.	Price	Cat. No.	Price
9" W.S.	5/8 x 5/8	437-CW	\$0.50	269-CW	\$ 5.50	437-HSW	\$2.00	269-HSW	\$22.00
9	5/8 x 5/8	438-C	.50	270-C	5.50	438-HS	2.00	270-HS	22.00
11	5/8 x 5/8	439-C	.60	271-C	6.00	439-HS	2.60	271-HS	31.00
13	5/8 x 5/8	440-C	1.00	272-C	11.00	440-HS	4.20	272-HS	47.00
15	5/8 x 1	443-C	1.30	273-C	14.30	443-HS	5.85	273-HS	65.00
16, 18	5/8 x 1 1/8	441-C	1.50	274-C	16.50	441-HS	7.20	274-HS	80.00

### Wood Working Chisels



(A) (B) (C) (D) (E) (F)

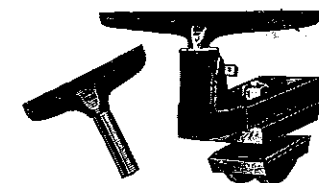
Designed for use in the home work shop, etc. Made of good quality cutlery steel, carefully sharpened. The set at left consists of six tools as follows:

- (A) 1/2" Skew
- (B) 1/2" Diamond Nose
- (C) 1/2" Round Nose
- (D) 1/2" Gouge
- (E) 1/2" Gouge
- (F) 1/2" Parting Tool

No. 278. Set of six chisels. Code Word, "Alder." Price.....\$4.20  
Single Chisels, each......75

When ordering single chisels be sure you specify the shape of chisel wanted. Use convenient letters assigned in the illustration.

### Hand Rests for Wood Work



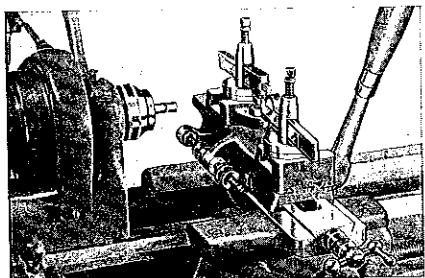
Hand Rest for Wood Turning (With 2 "T" Rests and Clamp)

Size Lathe	Cat. No.	Price	Size Lathe	Cat. No.	Price
9" W.S.	896-W	\$4.00†	15 in.	1073	\$11.00
9 in.	1071	8.00	16 in.	1075	11.00
11 in.	1072	8.00	18 in.	1076	11.00
13 in.	1073	9.00			

†Compound Rest Type, complete with base and three "T" Rests.

The Hand Rest outfit shown and priced at the left may be easily and quickly fitted to the lathe for wood turning and turning composition and materials of all kinds. We carry a complete line of wood working tools, accessories and equipment for the South Bend Lathe. Write for information and prices.

### Double Tool Slides—Screw and Hand Lever Types

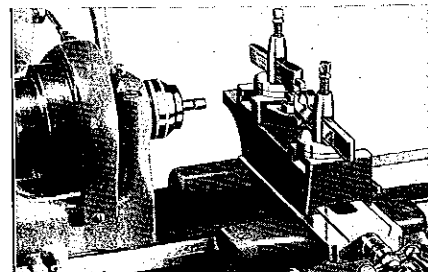


Hand Lever Double Tool Slide

The Screw Feed Tool Slide is controlled by the lathe cross feed screw, the Hand Lever Tool Slide by a hand lever. Prices include front and back tool rest, adjustable stop, and one tool post—the other tool post is furnished with lathe.

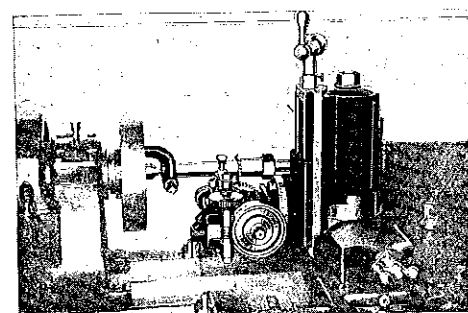
#### Prices of Double Tool Slides

Size of Lathe	Screw Feed Type			Hand Lever Type		
	Cat. No.	Code Word	Price	Cat. No.	Code Word	Price
9" W.S.	958	Bemor	\$35.00	738	Abetz	\$60.00
9 in.	981	Dakin	35.00	744	Daple	60.00
11 in.	982	Denis	40.00	745	Debit	65.00
13 in.	983	Divot	45.00	746	Diced	75.00
15 in.	984	Dobin	50.00	747	Doles	80.00
16 in.	985	Drips	55.00	748	Drain	85.00
18 in.	986	Duets	60.00	749	Dufer	90.00



Screw Feed Double Tool Slide

### Gear Cutting Attachment for South Bend Lathes



Attachment Mounted on Compound Rest

The Garrett Millerette Attachment for the lathe is equipped with a milling machine dividing head which enables it to be used for cutting gears of all kinds—spur, bevel, and angle. It will do graduating and milling, external key seating of all

kinds, cutting at angle, splining, slotting and milling of small light work.

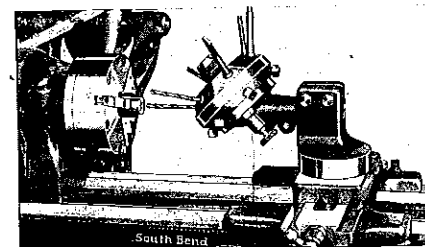
Attachment is mounted on cross slide of lathe. Holds work in any position. Work can be spaced by turning it through any desired part of a revolution with the dividing head changeable gears. An index plate on attachment shows the proper gears to use for division from 2 to 360 and the number of turns required of the index lever.

#### Net Factory Prices of Gear Cutting Attachment

Size of Lathe	Cat. No.	Travel of Down Slide	Shipping Weight	Code Word	Price Fitted*
"Workshop"	270W	6 1/2 in.	45 lbs.	Hapno	\$165.00
9 in.	200	6 1/2 in.	45 lbs.	Hilot	165.00
11 in.	261	6 1/2 in.	45 lbs.	Hetes	165.00
13 in.	262	6 1/2 in.	45 lbs.	Hajima	180.00
15 in.	263	7 1/2 in.	60 lbs.	Hajima	180.00
16 in.	264	7 1/2 in.	60 lbs.	Hajima	180.00
18 in.	265	9 in.	100 lbs.	Hajima	200.00

\*Prices include fitting of attachment to lathe.

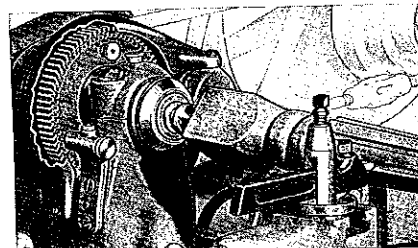
Equipment Includes: 2 wrenches, 1 cutter arbor, 1 work arbor with draw bolt, 1 straight clamp, 1 concave clamp, 1 dog center, 1 outboard support and 1 set of 24 change gears.



### Six Tool Turret

The six tool turret mounted on saddle above indexes by hand only. Six tools shown not included in price. Prices for turret less bracket, not fitted....\$39.00

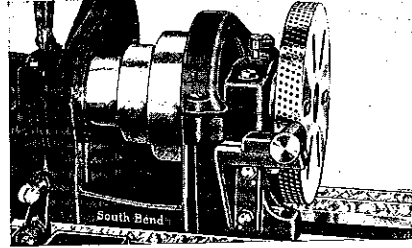
Size of Lathe	Cat. No.	Price
9" W.S.	1566	\$42.00
9 in.	1567	43.00
11 in.	1568	44.00
13 in.	1569	45.00
16 in.	1570	45.00



### Dividing Gear (72 Holes)

The dividing gear with 72 holes is an efficient and economical attachment for locating and indexing work. It must be fitted to the lathe at factory.

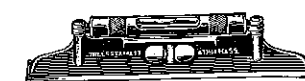
Prices Fitted at Factory		
Size of Lathe	Cat. No.	Price
W.S.	1335	\$15.00
9"	1337	16.00
11"	1338	17.00
13"	1339	18.00
16"	1345	20.00



### Indexing Face Plate

360 holes in 4 rows (90 in each row) permit indexing throughout entire range of 360°. Fewer holes may be drilled in 1, 2, or 3 rows. Prices on request.

Prices of Indexed Plate		
Type of Lathe	Cat. No.	360 Holes
9" W.S.	90-W	\$35.00
9"	1751	35.00
11"	1755	40.00
13"	1756	45.00
16"	1757	50.00



### Precision Level

A sensitive level 12" long with accurately ground and graduated vial. Recommended for leveling South Bend Lathes.

Shipping Weight 5 lbs.  
No. 977. Code, "Netaf." \$7.50

### Oil and Oiler

A high quality machine oil especially selected for oiling South Bend Lathes. Oiler is of extra heavy steel.

No. 935. 1 Qt. Oil and Oiler, wt. 1 1/2 lbs.  
"Oswah" .....\$0.50

\*The abbreviation W. S. used above means "Workshop" Lathes.



Oil and Oiler.

### Center Gauge



Tempered Center Gauge.

No. 650. Code, "Xutje." Shipping Wt. 3 oz. ....\$0.50

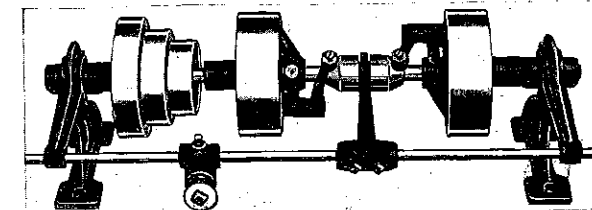
### Double Friction Countershaft

#### For 9-inch "Workshop" Lathes

The Double Friction Countershaft shown at left is practical and powerful. It is recommended for "Workshop" lathes operating from a lineshaft. May be used with any "Workshop" bench or floor leg lathe. Two friction clutch pulleys, one driven by direct belt from the line shaft and one driven by crossed belt from the line shaft, permit lathe to be operated both forward and in reverse.

Cat. No. 289. Code, "Afget." Shipping Weight, 60 lbs. ..\$12.00

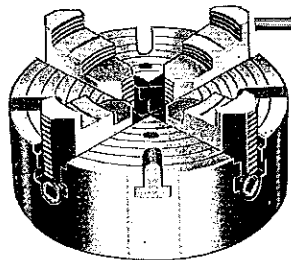
For prices of Double Friction Countershaft for other South Bend Lathes see page on which lathe is discussed.



Double Friction Countershaft for 9-inch "Workshop" Lathes.

## Lathe Chucks for Manufacturing and General Machine Work

### Four-Jaw Independent Lathe Chuck\* Skinner or Equal Make

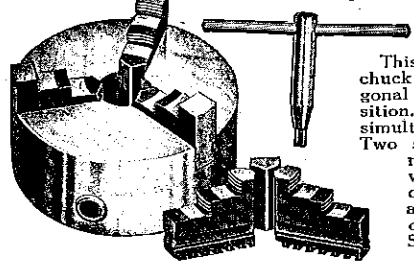


#### Heavy Duty

This precision chuck has four reversible independent solid jaws for chucking round or irregular work in a concentric or eccentric position. Face of chuck is ground and is accurately graduated. Prices and weights include wrench and screws for chuck-back but not chuck-back or fitting. See fitting charges below.

Cat. No.	Capacity	Hole Through Chuck	Width of Jaws	Net Wt. Lbs.	Ship. Wt. Lbs.	Code Word	Price
4401	4 1/2"	1"	3 1/4"	9 1/2	9 1/2	Bawle	\$27.00
4406	6"	1 1/4"	4 1/4"	15 1/4	15 1/4	Bench	\$32.00
4408	8"	1 3/4"	5 1/4"	21 3/4	21 3/4	Bair	37.00
4409	10"	2"	6 1/4"	31 3/4	31 3/4	Baito	40.00
4410	12"	2 1/4"	7 1/4"	44 1/2	44 1/2	Balda	47.00
4412	18"	3 1/4"	11 1/4"	73 1/2	73 1/2	Baled	56.00

### Three-Jaw Universal Lathe Chuck\* Cushman or Equal Make

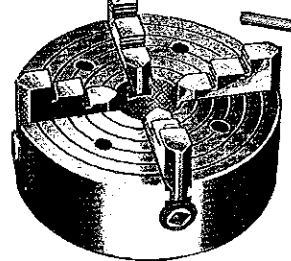


#### Heavy Duty

This self-centering precision chuck holds round and hexagonal work in a concentric position. The jaws are moved simultaneously by a scroll. Two sets of jaws are furnished: One set grips work on the outside, the other holds work internally. Prices and weights include wrench and screws. See fitting charges below.

Cat. No.	Capacity	Hole Through Chuck	Width of Jaws	Net Wt. Lbs.	Ship. Wt. Lbs.	Code Word	Price
3403	3"	5/8"	3 1/2"	3 1/2	3 1/2	Panel	\$29.00
3404	4"	1"	4 1/2"	7 1/2	7 1/2	Paras	33.00
3405	5"	1 1/4"	5 1/2"	11 1/2	11 1/2	Parot	36.00
3406	6"	1 3/4"	6 1/2"	15 1/2	15 1/2	Pasto	41.00
3407	7 1/2"	2"	7 1/2"	20 1/2	20 1/2	Patri	48.00
3409	9"	2 1/4"	9 1/2"	25 1/2	25 1/2	Pedat	57.00
3410	10 1/2"	3"	11 1/2"	35 1/2	35 1/2	Perag	64.00

### Four-Jaw Independent Lathe Chuck\* Skinner or Equal Make

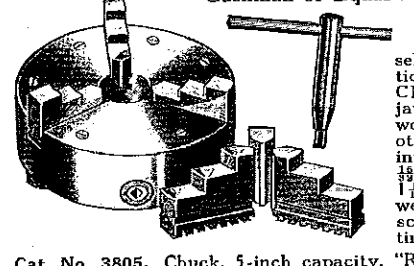


#### Medium Duty

A well built chuck, practical for light machining. Has four reversible independent jaws for chucking round or irregular work in a concentric or eccentric position. Width of jaws 5/8", hole through chuck 1 1/8" in diam. Prices and weights include wrench and screws for fitting. For chuck-back and fitting charges see prices below.

Cat. No. 4806. Chuck, 6-inch capacity, "Rapno".....\$18.00  
(Net weight 11 lbs., shipping weight 11 1/2 lbs.)

### Three-Jaw Universal Lathe Chuck\* Cushman or Equal Make

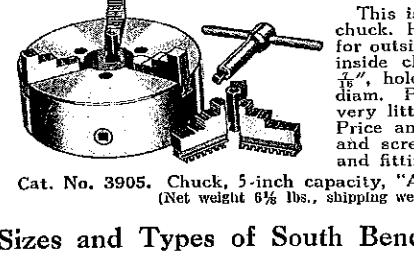


#### Medium Duty

An excellent, well built, self-centering chuck practical for light machining. Chuck has two sets of jaws; one set for gripping work on the outside, the other set for holding work internally. Width of jaws 1 1/8" in diam. Prices and weights include wrench and screws for fitting. See fitting charges below.

Cat. No. 3805. Chuck, 5-inch capacity, "Rasep".....\$20.00  
(Net weight 6 1/2 lbs., shipping weight 7 lbs.)

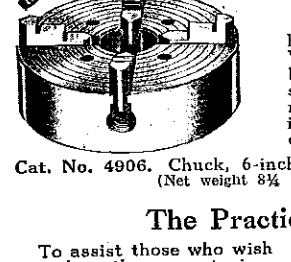
### Three-Jaw Universal Lathe Chuck\* Light Duty



This is a low priced light duty chuck. Has two sets of jaws: One for outside chucking, the other for inside chucking. Width of jaws 1 1/8" in diam. Hole through chuck 1 1/8" in diam. Practical for shops having very little metal chucking to do. Price and weight include wrench and screws. See chuck-back and fitting charges below.

Cat. No. 3905. Chuck, 5-inch capacity, "Abhix".....\$13.00  
(Net weight 6 1/2 lbs., shipping weight 6 1/2 lbs.)

### Four-Jaw Independent Lathe Chuck\* Light Duty



This low priced, light duty chuck has four reversible independent jaws. Width of jaws 5/8", hole through chuck 1 1/8" in diam. This chuck is usually selected by those who have very little metal chucking to do. Price and weight include wrench and screws for fitting chuck-back. See fitting charges below.

Cat. No. 4906. Chuck, 6-inch capacity, "Abhod".....\$10.00  
(Net weight 8 1/2 lbs., shipping weight 9 lbs.)

## The Practical Sizes of Chucks for All Sizes and Types of South Bend Lathes

To assist those who wish to select the correct sizes of chucks for South Bend Lathes we list in the table at the right the sizes of chucks most practical for general work with each size lathe. We also show the maximum sizes which are the largest possible to use on each lathe.

Size of Lathe	4-Jaw Independent Chuck		3-Jaw Universal Chuck		3-Jaw Drill Chuck	
	Recommended	Maximum	Recommended	Maximum	Recommended	Maximum
"Workshop".....	6 in. Med. Duty	6 in.	5 in. Med. Duty	5 in.	1/2 in.	5/8 in.
9-in. lathe.....	6 in. Med. Duty	6 in.	5 in. Med. Duty	5 in.	1/2 in.	5/8 in.
11-in. lathe.....	8 in. Hvy. Duty	8 in.	5 in. Hvy. Duty	7 1/2 in.	3/4 in.	1 in.
13-in. lathe.....	8 in. Hvy. Duty	10 in.	6 in. Hvy. Duty	9 in.	3/4 in.	1 in.
15-in. lathe.....	10 in. Hvy. Duty	12 in.	7 1/2 in. Hvy. Duty	10 1/2 in.	1 in.	1 1/4 in.
16-18-24, 36".....	10 in. Hvy. Duty	12 in.	9 in. Hvy. Duty	10 1/2 in.	1 in.	1 1/4 in.
18-in. lathe.....	12 in. Hvy. Duty	14 in.	10 1/2 in. Hvy. Duty	12 in.	1 in.	1 1/4 in.

## \*Prices for Fitting Chucks to Lathes

In order to mount a chuck on the lathe, the chuck must be fitted with a chuck-back. Figures A, B and C at the right show three steps in fitting a chuck to the lathe. The chuck-back must fit the spindle nose accurately in order to have the chuck run true when fitted to the lathe. This is a difficult job for the average mechanic because special tool equipment is required for doing the work. If you purchase a lathe and include the Lathe Chuck with the order, we recommend that the chuck be fitted to the lathe in our factory.

When ordering a chuck-back without chuck specify serial number of lathe, also give minimum diameter of chuck-back required.

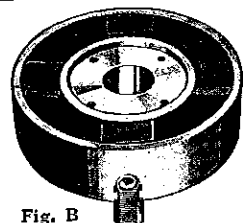


Fig. B  
Recess Machined in Chuck for Chuck-Back



Fig. A  
Semi-Machined Chuck-Back Threaded to Spindle

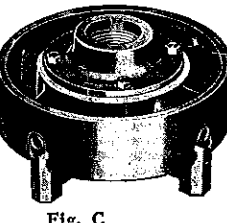
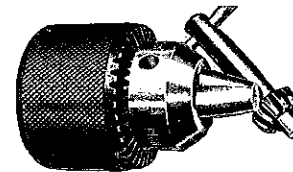


Fig. C  
Chuck with Chuck-Back Attached, ready for use

Sizes of South Bend Lathes.....	9 in. "Workshop"	9 in.	11 in.	13 in.	15 in.	16 in.	18 in.	16-24 in.	36 in.
Prices of Semi-machined Chuck-Back.....	\$2.50	\$4.00	\$4.25	\$4.50	\$4.75	\$5.00	\$5.50	\$5.00	\$5.00
Code Word for Semi-machined Chuck-Back.....	Acnim	Conat	Cavor	Cekam	Cimer	Clame	Cuban	Clame	Clame
Fitting Chuck-Back to Chuck and to Lathe.....	\$1.50	\$2.50	\$3.00	\$3.50	\$3.75	\$4.00	\$4.50	\$4.00	\$4.00
Total for Chuck-Back fitted to Chuck and to Lathe.....	\$4.00	\$6.50	\$7.25	\$8.00	\$8.50	\$9.00	\$10.00	\$9.00	\$9.00
Code Word for Chuck-Back fitted to Chuck and to Lathe.....	Acors	Efago	Eodar	Ender	Eldon	Eliza	Elsie	Eliza	Eliza
Catalog No. for Chuck-Back fitted to Chuck and Lathe.....	258-W	295-A	295-B	295-C	295-D	295-E	295-F	295-E	295-E

## Drill Chucks for Manufacturing and General Machine Work For All Sizes and Types of South Bend Lathes

### Jacobs Three-Jaw Drill Chuck

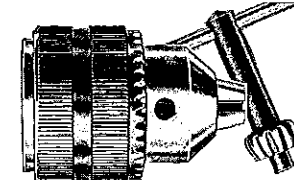


This Chuck is practical for general drilling work in the lathe. The jaws are of tempered steel and are operated by a heavy screw. The geared sleeve and key assure a powerful grip. Price and weight include pinion key, but not arbors, which are listed below.

#### Prices of Three-Jaw Drill Chuck

Cat. No.	Capacity	Diam.	Length	Net Wt.	Ship. Wt.	Code	Price
1200	0 to 3/8 in.	1 1/4 in.	2 1/4 in.	1 1/2 lbs.	1 1/2 lbs.	Cleve	\$ 4.25
1201	0 to 1/2 in.	2 in.	2 3/4 in.	1 3/4 lbs.	1 3/4 lbs.	Vanko	6.75
1202	1/2 to 3/4 in.	2 1/2 in.	3 in.	2 1/2 lbs.	2 1/2 lbs.	Faloz	9.00
1203	3/4 to 1 in.	3 in.	3 1/2 in.	3 1/2 lbs.	3 1/2 lbs.	Frank	12.00

### Almond Three-Jaw Drill Chuck

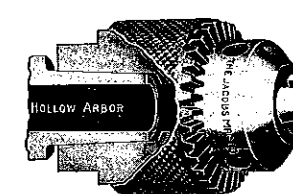


This chuck is practical, powerful, well-balanced and accurate for all drilling work in the lathe. The jaws are of tempered steel and are operated by a heavy screw. Price and weight include pinion key, but not arbors which are listed below.

#### Prices of Three-Jaw Drill Chuck

Cat. No.	Capacity	Diam.	Length	Net Wt.	Ship. Wt.	Code	Price
210	0 to 3/8 in.	1 1/4 in.	2 1/4 in.	1 1/2 lbs.	1 1/2 lbs.	Acpen	\$ 3.85
220	0 to 1/2 in.	2 in.	2 3/4 in.	1 3/4 lbs.	1 3/4 lbs.	Acpen	5.25
327	1/2 to 3/4 in.	2 1/2 in.	3 in.	2 1/2 lbs.	2 1/2 lbs.	Rulid	7.50
328	3/4 to 1 in.	3 in.	3 1/2 in.	3 1/2 lbs.	3 1/2 lbs.	Rulid	10.00

### Jacobs Hollow Spindle Chuck

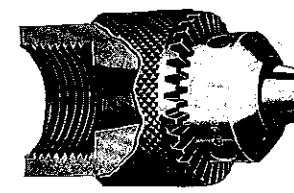


This is an ideal chuck for holding small rods and bar work for machining in the lathe. It is also practical for holding all kinds of engine valves, centered and centered, for refacing in the lathe. Price and weight include pinion key and hollow steel arbor.

#### Prices of Hollow Spindle Chuck

Cat. No.	Size Lathe	Capacity	Net Wt.	Ship. Wt.	Code	Price
354-A	13", 15", 16", 18"	1/2" to 5/8"	2 1/2 lbs.	3 1/4 lbs.	Tavif	\$10.50
354-B	13", 15", 16", 18"	1/2" to 5/8"	4 1/2 lbs.	5 1/2 lbs.	Taved	14.25

### Headstock Spindle Chuck

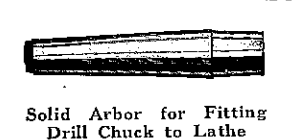


Screws on spindle nose of lathe. Has hollow body for holding small rods, bars and automobile engine valves for refacing. Can also be used in tailstock of lathe, as chuck has taper hole in body which can be fitted with arbor.

#### Prices of Headstock Spindle Chuck

Cat. No.	Size Lathe	Capacity	Net Wt.	Ship. Wt.	Code	Price
907-W	"Workshop"	1/2" to 5/8"	3 1/2 lbs.	3 1/2 lbs.	Robal	\$ 9.00
907-A	9-in. Reg.	1/2" to 5/8"	3 1/2 lbs.	3 1/2 lbs.	Robop	9.00
925-A	9-in.	1/2" to 5/8"	3 1/2 lbs.	4 1/2 lbs.	Rodna	11.25
925-B	11-in.	1/2" to 5/8"	3 1/2 lbs.	4 1/2 lbs.	Rodpe	11.25
925-C	13-in.	1/2" to 5/8"	3 1/2 lbs.	4 1/2 lbs.	Rodro	11.25

## Solid Arbors for Fitting Drill Chucks to South Bend Lathes

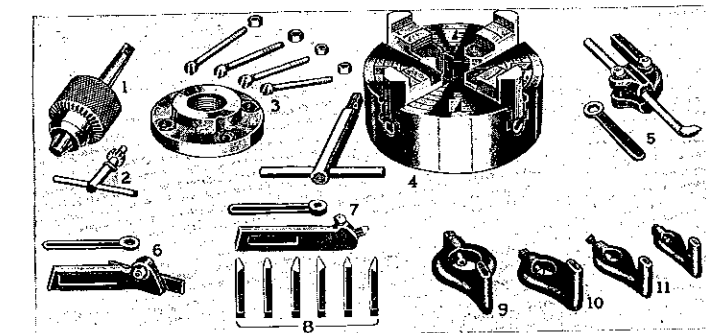


Solid Arbors are used for fitting drill chucks to lathes. When ordering drill chuck arbor only, state size and make of drill chuck, diameter and depth of arbor socket and size of lathe on which the chuck is to be used so that we can supply the correct size arbor.

Solid Arbor for Fitting Drill Chuck to Lathe

Size Lathe	Morse Taper	Cat. No.	Net Wt.	Ship. Wt.	Code	Price
"Workshop"	No. 2	709-W	1/2 lb.	3/4 lb.	Achuk	\$1.00
9-in.	No. 2	709	1/2 lb.	3/4 lb.	Abner	1.00
11-in.	No. 2	709	1/2 lb.	3/4 lb.	Abner	1.00
13-15 in.	No. 3	713	3/4 lb.	1 lb.	Adams	1.50
16-18 in.	No. 3	716	3/4 lb.	1 lb.	Agate	1.50

## Chuck and Tool Assortments for General Machine Work For Use on All Sizes and Types of South Bend Lathes



The assortments listed herewith include chucks and tools most practical for use on each size and type of South Bend Lathe for general machine work. These assortments meet the demands of the repair shop for economy and general utility. They are the result of our 30 years' experience in equipping shops of various kinds. See illustration at left.

Each size lathe requires a different Chuck and Tool Assortment as listed below. If you desire additional chucks and tools they may be added to the cost of the assortment or any tool not wanted may be omitted.

The 4-jaw Independent lathe chuck is listed in each assortment because this chuck will handle round, square and irregular shaped work. However if a 3-jaw Universal chuck is instead it can be furnished at additional cost.

The Chuck and Tool Assortment is the basic equipment for general machine work and is not to be confused with the attachments and tools, shown in this catalog, which equip the lathe for production work and special machine work.

Assortment for Each Size Lathe.	Workshop	9-inch	11-inch	13-inch	15-inch	16-inch	18-inch	16-24-inch	36-inch
4-Jaw Independent Lathe Chuck.....	\$18.00*	\$18.00*	\$18.00*	\$37.00	\$40.00	\$47.00	\$56.00	\$47.00	\$47.00
Size of above Lathe Chuck.....	6 in.	6 in.	6 in.	8 in.	9 in.	10 in.	12 in.	10 in.	10 in.
Fitting Chuck to Lathe including semi-machined chuck back.....	4.00	6.50	7.25	8.00	8.50	9.00	10.00	9.00	9.00
3-Jaw Drill Chuck.....	5.25	5.25	5.25	7.50	9.00	12.00	12.00	12.00	12.00
Capacity of Drill Chuck.....	1/2 in.	1/2 in.	1/2 in.	3/4 in.	3/4 in.	1 in.	1 in.	1 in.	1 in.
Arbor Fitted to Drill Chuck.....	1.00	1.00	1.00	1.50	1.50	1.50	1.50	1.50	1.50
Straight Shank Tool Holder.....	1.25	2.05	2.15	2.45	2.45	3.00	3.00	3.00	3.00
Six Ground Cutters, for Tool Holders.....	1.40	1.40	1.40	2.00	2.00	2.90	2.90	2.90	2.90
Boring Tool Holder, Style D.....	3.00	3.00	3.50	4.35	4.35	5.75	5.75	5.75	5.75
Boring Tool Holder, Style B.....	1.50	2.25	2.70	2.70	2.70	3.40	3.40	3.40	3.40
Cutting-Off Tool, right hand.....	1.50	2.25	2.70	3.15	3.15	3.15	3.15	3.15	3.15
Four Malleable Lathe Dogs.....	2.25	2.60	2.60	3.15	3.15	3.15	3.15	3.15	3.15
Size of Lathe Dogs.....	1/2, 1, 1 1/2"	1/2, 1, 1 1/2"	1/2, 1, 1 1/2"	1/2, 1, 1 1/2"	1/2, 1, 1 1/2"	1/2, 1, 1 1/2"	1/2, 1, 1 1/2"	1/2, 1, 1 1/2"	1/2, 1, 1 1/2"
Assortments, Complete.....	\$37.65	\$41.95	\$43.40	\$68.65	\$73.65	\$87.70	\$99.25	\$87.70	\$87.70
Catalog No., Assortment Complete.....	105-W	109	111	113	115	116	118	116	116
Code Word, Assortment Complete.....	Axtro	Borle	Cihir	Dopob	Edmon	Fidex	Giplo	Fidex	Fidex

\*This is a Medium Duty Chuck. All other chucks listed in the Assortments are Heavy Duty Chucks.