

## NO. 40—16-IN. SOUTH BEND LATHE

FITTED WITH AUTOMATIC LONGITUDINAL FEED AND POWER CROSS FEED

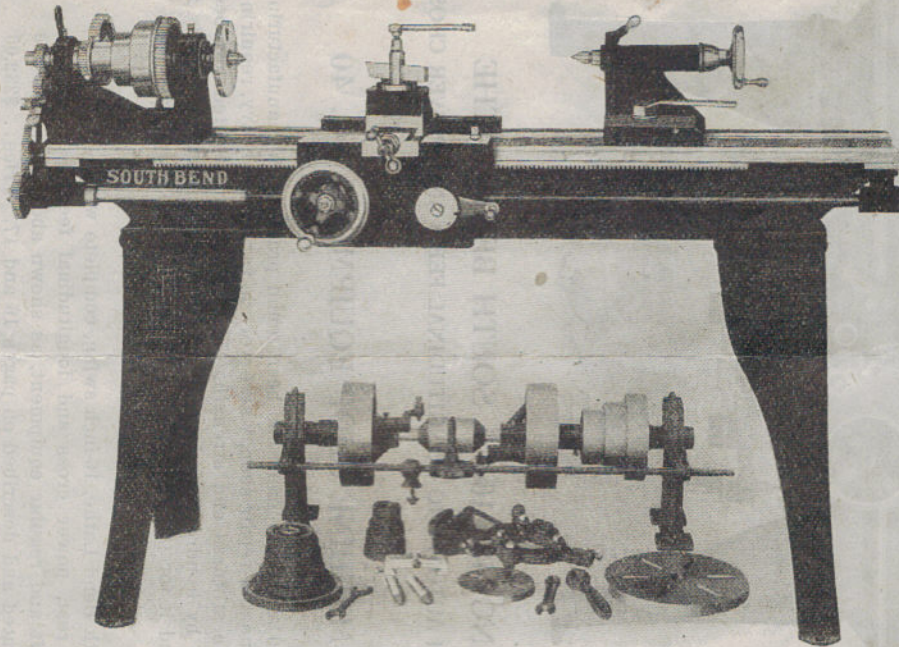
## MACHINE SHOP EQUIPMENT NO. 40

The No. 40 shop equipment has been found practical in manufacturing, in the general machine and repair shop, where work is varied and heavy, requiring a lathe of considerable stiffness and strength. The equipment selected has been found most practical by hundreds of shops in which this equipment is already installed. We recommend it for the shop requiring a stiff, heavy lathe, because it will produce results.

1—No. 40 South Bend Lathe, 16-inch swing, complete with compound rest, power cross and longitudinal feeds, countershaft and regular equipment, as shown above, also illustrated and described on pages 16 and 17. Price..	No. 40 X 8 ft. Bed \$282.00	No. 40 Y 10 ft. Bed \$312.00
1—12" 4-Jaw Independent Lathe Chuck, see page 47.....	19.50	19.50
1—Standard Drill Chuck, $\frac{3}{4}$ " capacity, see page 46.....	4.80	4.80
1—Set (12) Lathe Tools, $\frac{5}{8}$ " x $1\frac{1}{4}$ " x 9", see page 42.....	10.00	10.00
1—Set (12—6A and 6B) Lathe Dogs, $\frac{1}{4}$ " to 4", see page 43....	5.50	5.50
Equipment total.....	\$321.80	\$351.80

Lathe may be equipped with raising blocks to increase swing to 22 inches, for turning and boring, as it has the strength and rigidity necessary for the increased swing. See page 28.





South Bend Screw Cutting Engine Lathe No. 28—11-inch Swing, 5-foot Bed  
Plain Screw Feed

South Bend, Indiana.

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## NO. 28—11-IN. SOUTH BEND LATHE

### PLAIN SCREW FEED

The No. 28 Lathe is a practical tool. It is very popular and is capable of doing a great variety of small accurate work.

**Bed** is rigid, cross ribbed by braces cast in at short intervals its entire length; has three V's and one flat way for front guide of head stock and tail stock. The rack attached is of steel, cut from the solid bar.

**Head Stock** is equipped with improved reverse. Cone has three steps for 1¼-inch belt. Spindle is of special carbon steel accurately ground; has a ⅝-inch hole its entire length. Has heavy phosphor bronze bearings adjustable for wear. Centers No. 2 Morse Taper.

**Tail Stock** is offset to allow compound rest to swing around parallel to bed; is provided with set-over for turning taper. Tail Center is self-ejecting.

**Carriage and Apron** is strong with wide deep bridge; has long bearing on the ways and may be locked when using cross feed. The carriage feed is driven by the split nut. The tool post will take tools ⅝x⅞.

**Thread Cutting.** The lathe is indexed to cut standard threads from 4 to 40, right or left, including 11½ pipe thread, and by Compounding the gears furnished, many other threads can be cut.

**Graduation.** The compound rest is graduated in degrees. The cross feed screw has micrometer graduated collar reading in one-thousandths of an inch.

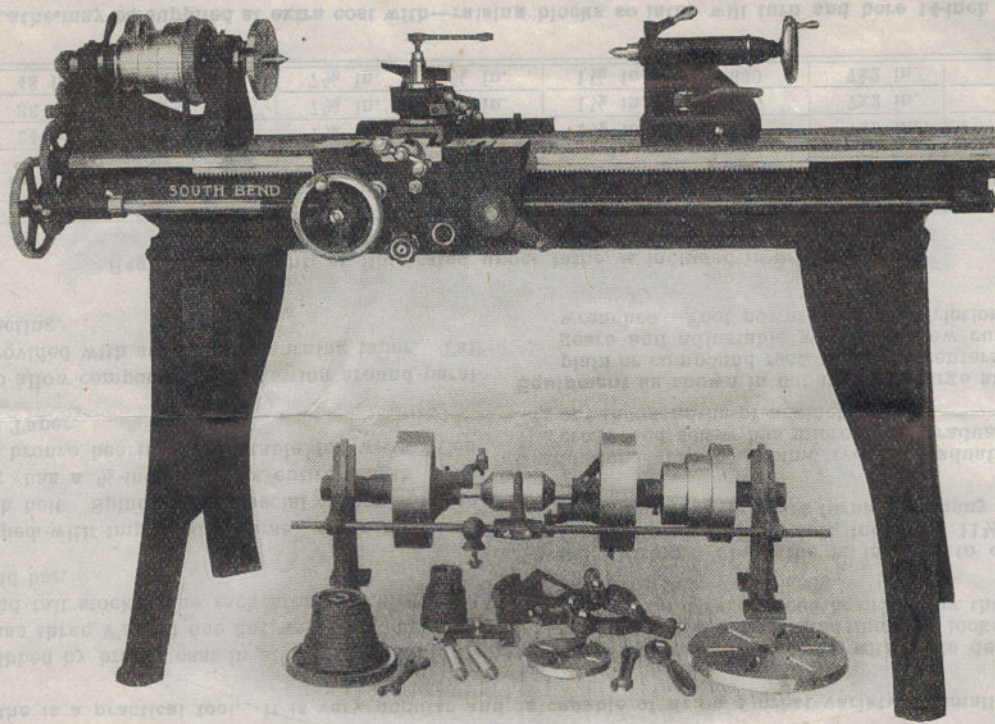
**Equipment** as shown in cut includes large and small face plates, plain or compound rest, two steel centers, center rest, change gears and adjustable stop for screw cutting, and necessary wrenches. Foot power or double friction countershaft.

Regular equipment, as illustrated under lathe, is included in price.

No. of Lathe	Length of Bed	Distance Between Centers	Swing Over Bed	Swing Over Carriage	Hole Through Spindle	Diameter of Spindle Nose	Weight on Skids	Countershaft Pulleys	Countershaft Speed	Price Plain Rest
28	4 ft.	24 in.	11¼ in.	7⅞ in.	⅝ in.	1½ in.	535	7x2 in.	225	\$100.00
28	5 ft.	36 in.	11¼ in.	7⅞ in.	⅝ in.	1½ in.	575	7x2 in.	225	107.00
28	6 ft.	48 in.	11¼ in.	7⅞ in.	⅝ in.	1½ in.	630	7x2 in.	225	114.00

**Extras.** The No. 28 Lathe may be supplied at extra cost with—raising blocks so lathe will turn and bore 14-inch swing, taper attachment, oil pan and gear guards.  
Compound Rest—\$12.00 Extra.





South Bend Screw Cutting Engine Lathe No. 29—11-inch Swing, 5-foot Bed  
Equipped with Automatic Longitudinal Feed and Power Cross Feed

South Bend, Indiana.

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### NO. 29—11-IN. SOUTH BEND LATHE FITTED WITH AUTOMATIC LONGITUDINAL AND POWER CROSS FEEDS

The No. 29 Lathe will be found very practical in tool making where sensitive, accurate work is required. It will also be found very efficient in light manufacturing and the turning out of duplicate parts.

**Bed** is rigid, cross ribbed by braces cast in at short intervals its entire length. Has three V's and one flat way for the front guides of the head and tail stock. The rack attached is of steel, one piece, and cut from the solid bar.

**Head Stock** is equipped with improved reverse, cone has three steps for 1½-inch belt, which, with back gears, gives it six changes of spindle speeds. Spindle is of special carbon steel, accurately ground, and has a 5/8-inch hole its entire length, heavy bronze boxes fitted with adjustment for wear. Centers are No. 2 Morse taper.

**Tail Stock** is offset to allow compound rest to swing parallel to bed. It is provided with set-over for turning taper. Tail stock center is self-ejecting.

**Carriage** is strong, with wide, deep bridge; has T slots for clamping work for milling and boring; has both power cross and

automatic longitudinal feeds, which are operated from the front of apron and so arranged that only one feed can be engaged at a time. Both feeds are driven by a splined screw and worm so that the thread of the lead screw is used for screw cutting only. Tool post will take tools 3/8x7/8.

**Thread Cutting.** Lathe is indexed to cut standard threads from 4 to 40, right or left, including 11½ pipe thread, and by compounding the gears furnished, many other threads may be cut.

**Graduation.** The compound rest is graduated in degrees. The cross feed screw has a graduated micrometer collar reading in one-thousandths of an inch.

**Equipment** shown in cut includes large and small face plate, plain or compound rest, two steel centers, center rest, change gears and adjustable stop for screw cutting, necessary wrenches, and foot power or double friction countershaft.

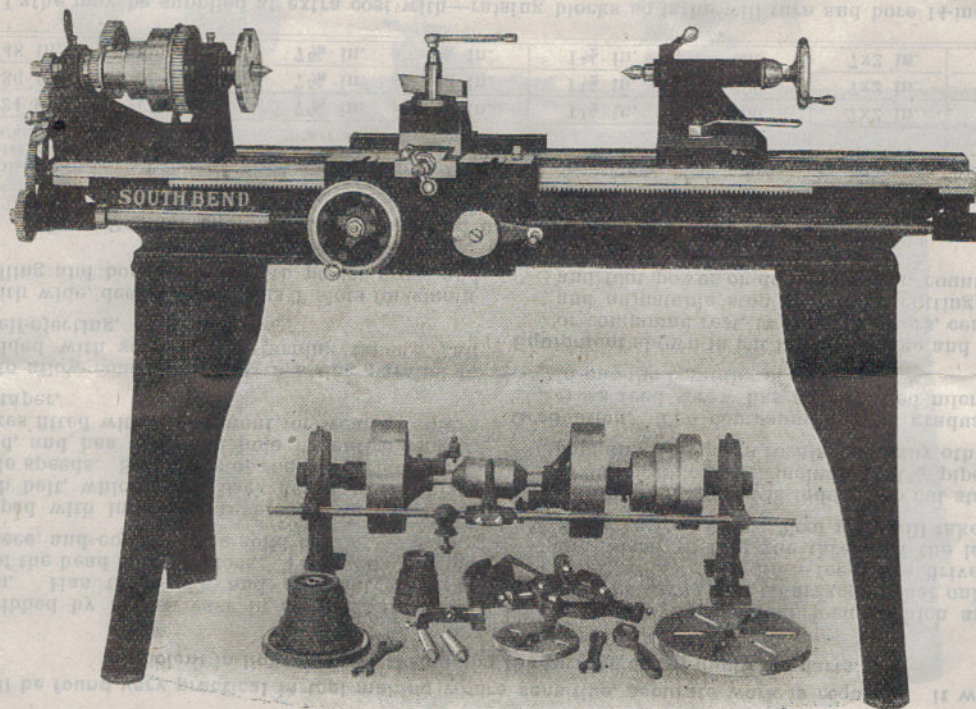
Regular equipment, as illustrated under lathe, is included in price.

No. of Lathe	Length of Bed	Distance Between Centers	Swing Over Bed	Swing Over Carriage	Hole Through Spindle	Diameter of Spindle Nose	Weight on Skids	Countershaft Pulleys	Countershaft Speed	Price Plain Rest
29	4 ft.	24 in.	11¼ in.	7½ in.	5/8 in.	1½ in.	550	7x2 in.	225	\$118.00
29	5 ft.	36 in.	11¼ in.	7½ in.	5/8 in.	1½ in.	600	7x2 in.	225	125.00
29	6 ft.	48 in.	11¼ in.	7½ in.	5/8 in.	1½ in.	650	7x2 in.	225	132.00

**Extras.** The No. 29 Lathe may be supplied at extra cost with—raising blocks so lathe will turn and bore 14-inch swing, taper attachment, oil pan, and gear guards. Extras (except oil pan) are interchangeable and may be attached after the lathe has left the factory.

Compound Rest—\$12.00 Extra.





South Bend Screw Cutting Engine Lathe No. 30—12-inch Swing, 5 Foot Bed  
Plain Screw Feed.

South Bend, Indiana.

## NO. 30—12-IN. SOUTH BEND LATHE

### PLAIN SCREW FEED

The No. 30 is an excellent lathe for the small job shop, and in either repair or manufacturing it is capable of taking care of a great deal of work in a practical manner.

**Bed** is rigid, cross ribbed by heavy box braces cast in at short intervals its entire length. Has three V's and one flat way for head and tail stock. The rack attached is of steel, one piece, and cut from the solid bar.

**Head Stock** is equipped with our improved reverse. Cone has three steps for 1½-inch belt, which, with back gears, gives it six changes of spindle speeds. Spindle is of special carbon steel, accurately ground; has a ⅝-inch hole its entire length. Centers are No. 2 Morse taper. Bearings are heavy phosphor bronze and are adjustable for wear.

**Tail Stock** is off-set to allow compound rest to swivel parallel to bed, and is provided with set-over for turning taper. Tail stock center is self-ejecting.

**Carriage** is strong with wide bridge and long bearing on the way; has T slots for milling and boring. Tool post will take tools ½x⅞ inch. Carriage may be locked when using cross feed. The carriage feed is driven by a split nut.

**Thread Cutting.** Lathe is indexed to cut standard threads from 4 to 40, right or left, including 11½ pipe thread, and by compounding the gears furnished, many other threads may be cut.

**Graduation.** The compound rest is graduated in degrees. The cross feed screw has micrometer graduated collar reading in one-thousandths of an inch.

**Equipment** shown in cut includes large and small face plate, plain or compound rest, two steel centers, center rest, change gears and adjustable stop for screw cutting, necessary wrenches, and foot power or double friction countershaft.

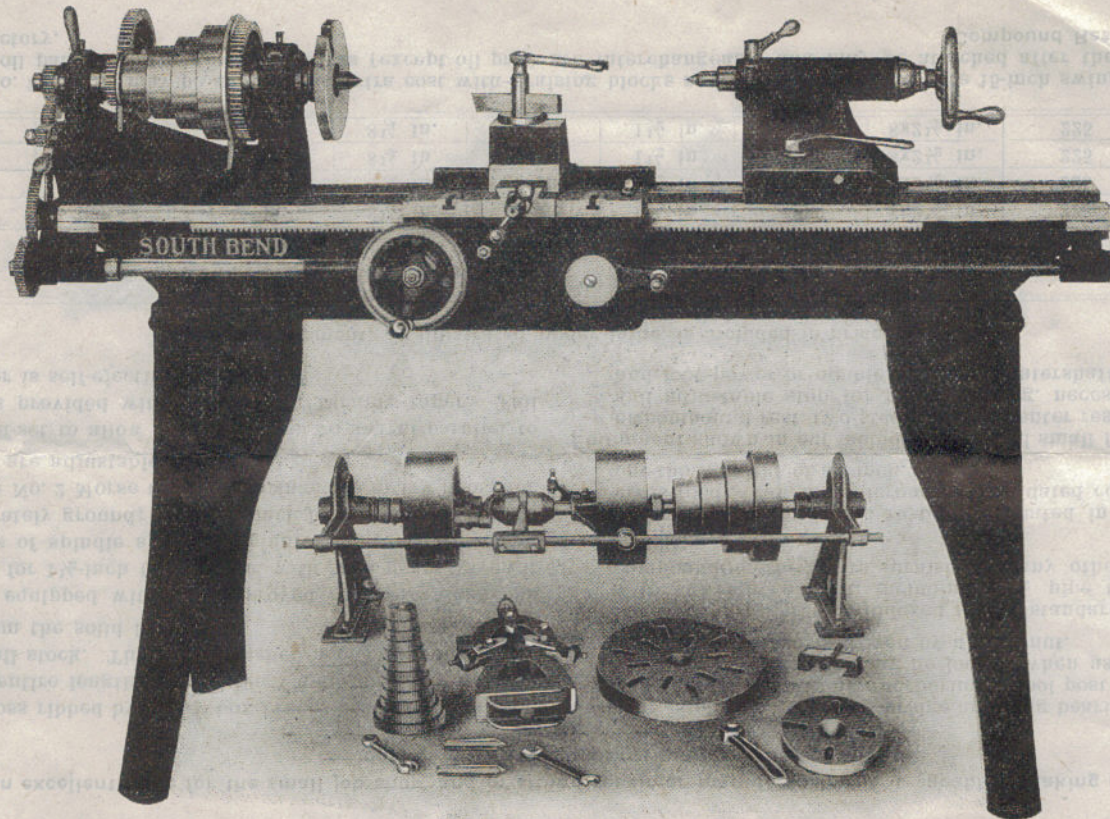
Regular equipment, as illustrated under lathe, is included in price.

No. of Lathe	Length of Bed	Distance Between Centers	Swing Over Bed	Swing Over Carriage	Hole Through Spindle	Diameter of Spindle Nose	Weight on Skids	Countershaft Pulleys	Countershaft Speed	Price Plain Rest
30	5 ft.	38 in.	12¼ in.	8¼ in.	⅝ in.	1½ in.	700	8x2½ in.	225	\$125.00
30	6 ft.	50 in.	12¼ in.	8¼ in.	⅝ in.	1½ in.	740	8x2½ in.	225	133.00
30	7 ft.	62 in.	12¼ in.	8¼ in.	⅝ in.	1½ in.	780	8x2½ in.	225	141.00
30	8 ft.	74 in.	12¼ in.	8¼ in.	⅝ in.	1½ in.	840	8x2½ in.	225	149.00

**Extras.** The No. 30 Lathe may be supplied at extra cost with—raising blocks so lathe will turn and bore 15-inch swing, taper attachment, oil pan, and gear guards. Extras (except oil pan) are interchangeable and may be attached after the lathe has left the factory.

Compound Rest—\$13.00 Extra.





South Bend Screw Cutting Engine Lathe No. 32—13-inch Swing, 6-foot Bed  
Plain Screw Feed

South Bend, Indiana.

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## NO. 32—13-IN. SOUTH BEND LATHE

### WITH PLAIN SCREW FEED

The No. 32 Lathe is stiff and heavy and will give good service in the ordinary job shop. It is a Screw Cutting Lathe in every sense.

**Bed** is rigid, cross ribbed by box braces cast in at short intervals its entire length; has three V's and one flat way for front guide of head and tail stock. The rack is of steel cut from the solid bar.

**Head Stock** is equipped with improved reverse. Cone has four steps for 1½-inch belt. Spindle is of special carbon steel accurately ground; has a ¾-inch hole its entire length. Head has heavy phosphor bronze bearings, which are adjustable for wear. Spindle conforms to No. 3 Morse taper.

**Tail Stock** has off-set to allow compound rest to swing round parallel to bed. It is provided with set-over for turning taper. Tail stock center is self-ejecting.

**Carriage** is strong and wide with deep bridge; has T slots for clamping work for milling and boring. Carriage is operated

by the split nut. Carriage may be locked when using cross feed. Opening in tool post ½x1½ inch.

**Thread Cutting.** Lathe is indexed to cut standard threads from 4 to 40, right or left hand, including 1½ pipe thread, and by compounding the gears furnished, many other threads can be cut.

**Graduation.** The compound rest is graduated in degrees. Cross feed screw has micrometer graduated collar reading in one-thousandths of an inch.

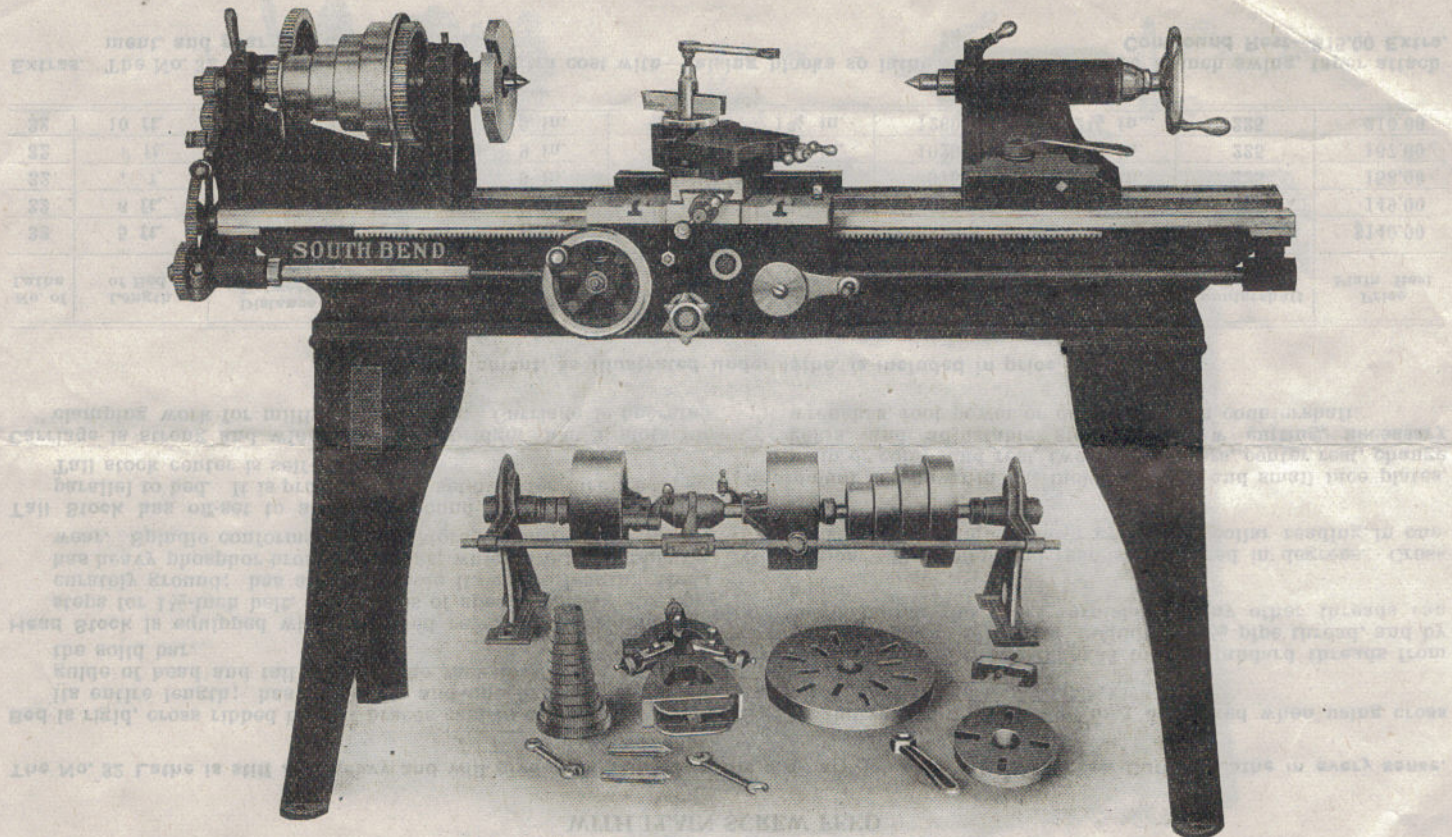
**Equipment** as shown in cut includes large and small face plates, plain or compound rest, two steel centers, center rest, change gears, and adjustable stop for screw cutting, necessary wrenches, foot power or double friction countershaft.

Regular equipment, as illustrated under lathe, is included in price.

No. of Lathe	Length of Bed	Distance Between Centers	Swing Over Bed	Swing Over Carriage	Hole Through Spindle	Diameter of Spindle Nose	Weight on Skids	Countershaft Pulleys	Countershaft Speed	Price Plain Rest
32	5 ft.	33 in.	13¼ in.	9 in.	¾ in.	1¾ in.	875	8x2½ in.	225	\$140.00
32	6 ft.	45 in.	13¼ in.	9 in.	¾ in.	1¾ in.	925	8x2½ in.	225	149.00
32	7 ft.	57 in.	13¼ in.	9 in.	¾ in.	1¾ in.	975	8x2½ in.	225	158.00
32	8 ft.	69 in.	13¼ in.	9 in.	¾ in.	1¾ in.	1025	8x2½ in.	225	167.00
32	10 ft.	93 in.	13¼ in.	9 in.	¾ in.	1¾ in.	1260	8x2½ in.	225	210.00

**Extras.** The No. 32 Lathe may be supplied at extra cost with—raising blocks so lathe will turn and bore 18-inch swing, taper attachment, and gear guards.  
Compound Rest—\$15.00 Extra.





South Bend Screw Cutting Engine Lathe No. 34—13-inch Swing, 6-foot Bed  
Equipped with Automatic Longitudinal Feed and Power Cross Feed

South Bend, Indiana

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## NO. 34—13-IN. SOUTH BEND LATHE

FITTED WITH AUTOMATIC LONGITUDINAL FEED AND POWER CROSS FEED

Our No. 34 Lathe is surpassed by none for manufacturing and the machine shop, as it has a number of practical features that enable it to take care of the various jobs that come to the shop.

**Bed** is rigid, cross ribbed by heavy box braces cast in at short intervals its entire length; has three V's and one flat way for front bearing of head and tail stock. The rack attached is of steel, cut from the solid bar.

**Head Stock** is equipped with improved reverse. Cone has four steps for 1½-inch belt. Spindle is of special spindle steel accurately ground; has ¾-inch hole its entire length. Centers No. 3 Morse Taper. Bearings are the best phosphor bronze with ample oiling facilities and adjustable for wear.

**Tail Stock** is off-set to allow compound rest to swivel parallel to bed and is provided with set over for turning taper. Tail stock center is self-ejecting.

**Carriage and Apron** is strong with wide deep bridge; has T slots for clamping work for milling and boring. Both power cross

and automatic longitudinal feeds are operated from the front of apron and but one feed at a time can be engaged. Both feeds are driven by a splined screw and worm so that the thread of the lead screw is used for screw cutting only.

**Thread Cutting.** The lathe is indexed to cut standard threads from 4 to 40, right or left, including 1½ pipe thread, and by compounding the gears furnished many other threads can be cut.

**Graduation.** The compound rest is graduated in degrees. The cross feed screw has micrometer graduated collar reading in one-thousandths of an inch.

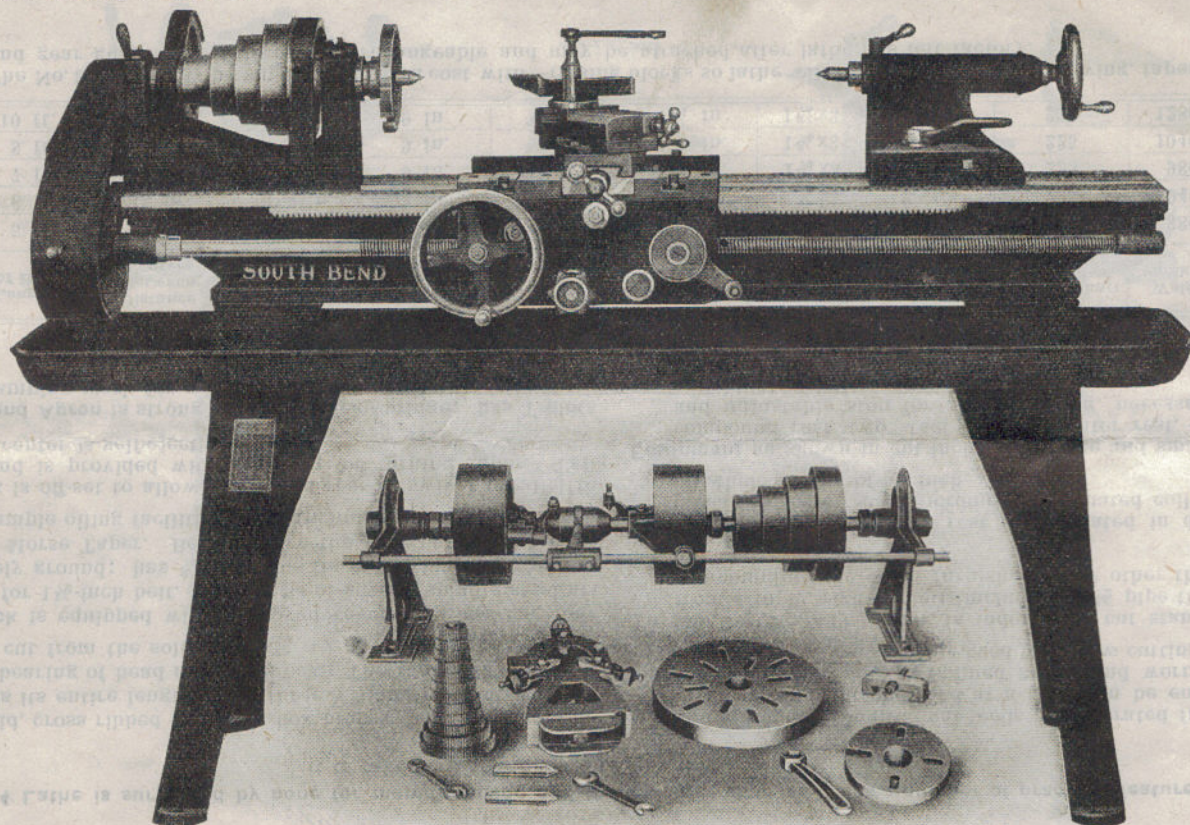
**Equipment** as shown in cut includes a large and small face plate, compound rest, two steel centers, center rest, change gears and adjustable stop for screw cutting, necessary wrenches and double friction countershaft.

Regular equipment, as illustrated under lathe, is included in price.

No. of Lathe	Length of Bed	Distance Between Centers	Swing Over Bed	Swing Over Carriage	Hole Through Spindle	Diameter of Spindle Nose	Front Bearing	Opening in Tool Post	Countershaft Speed	Weight on Skids	Price Compound Rest
34	5 ft.	33 in.	13¼ in.	9 in.	¾ in.	1¾ in.	1¾x3	⅝x1 ⅜	225	880	\$165.00
34	6 ft.	45 in.	13¼ in.	9 in.	¾ in.	1¾ in.	1¾x3	⅝x1 ⅜	225	940	174.00
34	7 ft.	57 in.	13¼ in.	9 in.	¾ in.	1¾ in.	1¾x3	⅝x1 ⅜	225	980	183.00
34	8 ft.	69 in.	13¼ in.	9 in.	¾ in.	1¾ in.	1¾x3	⅝x1 ⅜	225	1040	192.00
34	10 ft.	93 in.	13¼ in.	9 in.	¾ in.	1¾ in.	1¾x3	⅝x1 ⅜	225	1280	235.00

**Extras.** The No. 34 lathe may be supplied at extra cost with—raising blocks so lathe will turn and bore 18-inch swing, taper attachment, and gear guards. Extras are interchangeable and may be attached after lathe has left factory.





South Bend Tool Room Lathe No. 35—13-inch Swing, 5-foot Bed  
Equipped with Automatic Longitudinal Feed and Power Cross Feed

South Bend, Indiana

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South Bend, Indiana.

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### NO. 35—13-IN. TOOL ROOM LATHE

FITTED WITH AUTOMATIC LONGITUDINAL FEED AND POWER CROSS FEED  
EQUIPPED WITH GEAR GUARDS AND OIL PAN

The No. 35 Tool Room Lathe is very practical for the making of small tools of every description. It is also an excellent Lathe for light manufacturing and is recommended for fine, accurate work.

**Bed** is rigid, cross ribbed by heavy box braces cast in at short intervals its entire length; has three V's and one flat way for front bearing of head and tail stock. The rack attached is of steel, cut from the solid bar.

**Head Stock** is equipped with improved reverse. Cone has four steps for 1½-inch belt. Spindle is of special spindle steel accurately ground; has ¾-inch hole its entire length. Centers No. 3 Morse Taper. Bearings are the best phosphor bronze with ample oiling facilities and adjustable for wear.

**Tail Stock** is off-set to allow compound rest to swivel parallel to bed and is provided with set over for turning taper. Tail stock center is self-ejecting.

**Carriage and Apron** is strong with wide deep bridge; has T slots for clamping work for milling and boring. Both power cross

and automatic longitudinal feeds are operated from the front of apron and but one feed at a time can be engaged. Both feeds are driven by a splined screw and worm so that the thread of the lead screw is used for screw cutting only.

**Thread Cutting.** The lathe is indexed to cut standard threads from 4 to 40, right or left, including 11½ pipe thread, and by compounding the gears furnished, many other threads can be cut.

**Graduation.** The compound rest is graduated in degrees. The cross feed screw has micrometer graduated collar reading in one-thousandths of an inch.

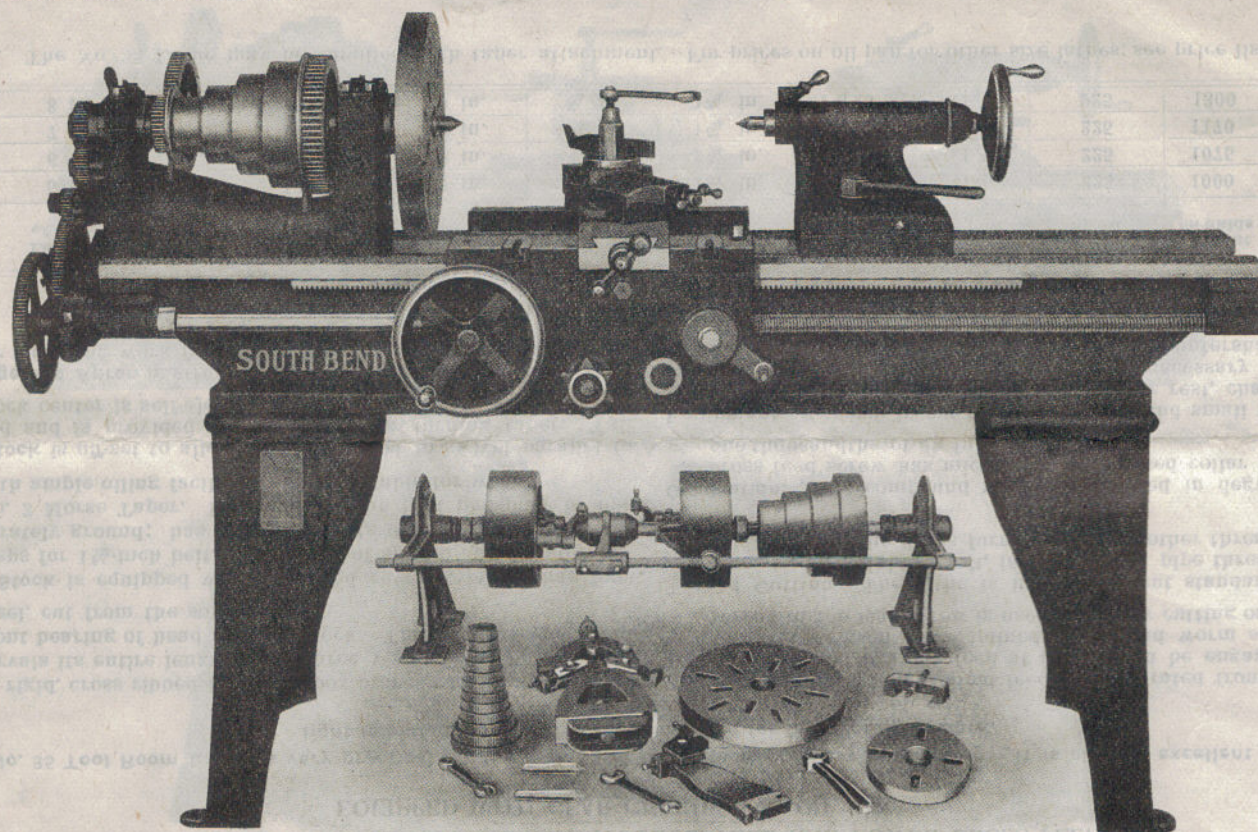
**Equipment** as shown in cut includes a large and small face plate, compound rest, two steel centers, center rest, change gears and adjustable stop for screw cutting, necessary wrenches, gear guards, oil pan, and double friction countershaft.

Regular equipment, as illustrated under lathe, is included in price.

No. of Lathe	Length of Bed	Distance Between Centers	Swing Over Bed	Swing Over Carriage	Hole Through Spindle	Diameter of Spindle Nose	Front Bearing	Opening in Tool Post	Countershaft Speed	Weight on Skids	Price Compound Rest
35	5 ft.	33 in.	13¼ in.	9 in.	¾ in.	1¼ in.	1¼ x 3	⅞ x 1 ⅞	225	1000	\$189.00
35	6 ft.	45 in.	13¼ in.	9 in.	¾ in.	1¼ in.	1¼ x 3	⅞ x 1 ⅞	225	1075	200.00
35	7 ft.	57 in.	13¼ in.	9 in.	¾ in.	1¼ in.	1¼ x 3	⅞ x 1 ⅞	225	1170	211.00
35	8 ft.	69 in.	13¼ in.	9 in.	¾ in.	1¼ in.	1¼ x 3	⅞ x 1 ⅞	225	1300	223.00

**Extras.** The No. 35 Lathe may be supplied with taper attachment. For prices on oil pan for other size lathes; see price list.





South Bend Screw Cutting Engine Lathe No. 40—16-inch Swing, 6-foot Bed  
Equipped with Automatic Longitudinal Feed and Power Cross Feed

South Bend, Indiana.

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## NO. 40—16-IN. SOUTH BEND LATHE

FITTED WITH AUTOMATIC LONGITUDINAL AND POWER CROSS FEEDS

The No. 40 Lathe is a heavy reliable tool capable of taking powerful cuts with high speed steel. We recommend it for manufacturing, for the machine shop and general all around work.

**Bed** is rigid, cross ribbed by heavy box braces cast in at short intervals its entire length; has three V's and one flat way for front guides of head and tail stock. The rack is of steel, cut from the solid bar.

**Head Stock** is equipped with improved reverse (see page 35). Cone has four steps for 2-inch belt, which, with back gears, gives eight changes of spindle speeds. Spindle is of special carbon steel accurately ground; has  $1\frac{5}{16}$ -inch hole its entire length. Centers No. 3 Morse Taper. Bearings are the best phosphor bronze, with ample oiling facilities, and are adjustable for wear.

**Tail Stock** is off-set to allow compound rest to swivel parallel to the bed and is provided with set over for turning taper. Tail stock center is self-ejecting.

**Carriage** is strong with wide deep bridge; has T slots for clamping work for milling and boring. Both power cross and automatic longitudinal feeds are operated from front of apron and but one feed at a time can be engaged. Both feeds are driven by a splined screw and worm so that the thread of the lead screw is used for screw cutting only.

**Thread Cutting.** Lathe is indexed to cut standard threads from 4 to 40, right or left including  $11\frac{1}{2}$  pipe thread.

**Graduation.** The compound rest is graduated in degrees. The cross feed screw has graduated micrometer collar reading in one-thousandths of an inch.

**Equipment** as shown in cut includes a large and small face plate, plain or compound rest, two steel centers, center rest, follower rest, change gears and adjustable stop for screw cutting, necessary wrenches and double friction countershaft.

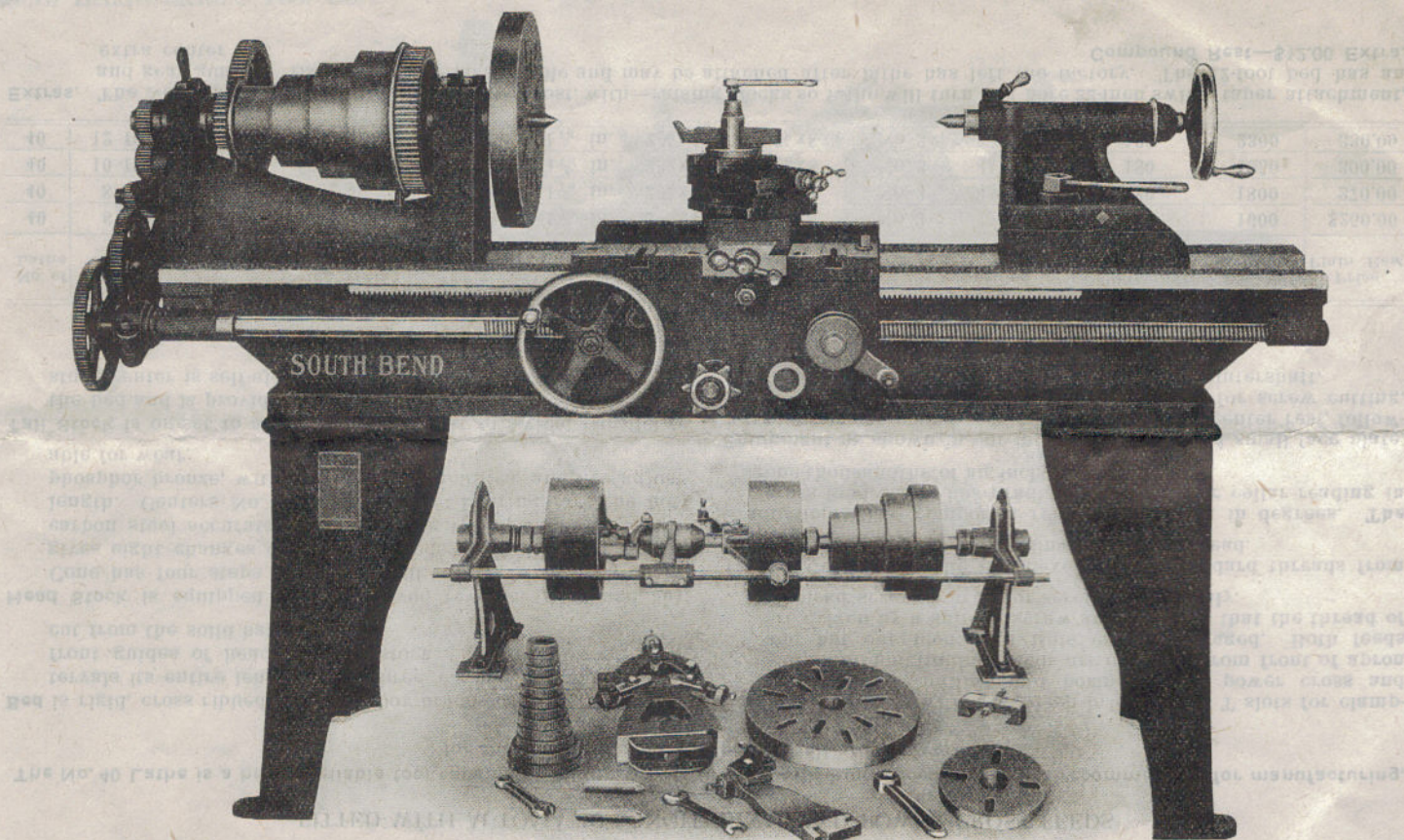
Regular equipment, as illustrated under lathe, is included in price.

No. of Lathe	Length of Bed	Distance Between Centers	Swing Over Bed	Swing Over Carriage	Hole Through Spindle	Diam. Front Bearing	Diameter of Spindle Nose	Taper in Spindle Morse	Opening in Tool Post	Countershaft Speed	Weight on Skids	Price, Plain Rest
40	6 ft.	36 in.	16 $\frac{1}{4}$ in.	11 $\frac{1}{8}$ in.	1 $\frac{5}{16}$ in.	2 $\frac{3}{8}$ x 4 in.	2 $\frac{3}{8}$ x 8	No. 3	$\frac{1}{16}$ x 1 $\frac{5}{16}$	180	1600	\$250.00
40	8 ft.	60 in.	16 $\frac{1}{4}$ in.	11 $\frac{1}{8}$ in.	1 $\frac{5}{16}$ in.	2 $\frac{3}{8}$ x 4 in.	2 $\frac{3}{8}$ x 8	No. 3	$\frac{1}{16}$ x 1 $\frac{5}{16}$	180	1800	270.00
40	10 ft.	84 in.	16 $\frac{1}{4}$ in.	11 $\frac{1}{8}$ in.	1 $\frac{5}{16}$ in.	2 $\frac{3}{8}$ x 4 in.	2 $\frac{3}{8}$ x 8	No. 3	$\frac{1}{16}$ x 1 $\frac{5}{16}$	180	1950	300.00
40	12 ft.	108 in.	16 $\frac{1}{4}$ in.	11 $\frac{1}{8}$ in.	1 $\frac{5}{16}$ in.	2 $\frac{3}{8}$ x 4 in.	2 $\frac{3}{8}$ x 8	No. 3	$\frac{1}{16}$ x 1 $\frac{5}{16}$	180	2300	330.00

**Extras.** The No. 40 lathe may be supplied at extra cost, with—raising blocks so lathe will turn and bore 22-inch swing, taper attachment, and gear guards. Extras are interchangeable and may be attached after lathe has left the factory. The 12-foot bed has an extra center leg.

Compound Rest—\$12.00 Extra.





South Bend Screw Cutting Engine Lathe No. 44—18-inch Swing, 6-foot Bed  
Fitted with Automatic Longitudinal Feed and Power Cross Feed

South Bend, Indiana.

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## NO. 44—18-IN. SOUTH BEND LATHE

FITTED WITH AUTOMATIC LONGITUDINAL AND POWER CROSS FEEDS

No. 44 Lathe is the largest we build. It is a heavy, powerful tool designed to give service with high speed steel. It has the strength and the capacity for manufacturing and general all round work in the machine shop.

**Bed** is rigid, cross ribbed by heavy box braces cast in at short intervals its entire length; has three V's and one flat way for front guides of the head and tail stock. The rack is of steel cut from the solid bar.

**Head Stock** is equipped with improved reverse. Cone has four steps for a  $2\frac{1}{2}$ -inch belt, which with back gears gives eight changes of spindle speeds. Spindle is of special carbon steel accurately ground, has a  $1\frac{1}{16}$ -inch hole its entire length. Centers conform to No. 3 Morse taper. Bearings are of phosphor bronze, with ample oiling facilities and are adjustable for wear.

**Tail Stock** is off-set to allow compound rest to swivel parallel to the bed, and is provided with set-over for turning taper. Tail stock center is self-ejecting.

**Carriage** is strong with wide deep bridge; has T slots for clamping work for milling and boring. Has both power cross feed, and automatic longitudinal feed, both of which are operated from the front of the apron and so arranged that only one feed can be engaged at a time. Both feeds are driven by a splined screw and worm so that the thread of the lead screw is used for screw cutting only.

**Thread Cutting.** Lathe is indexed to cut standard threads from 4 to 40, right or left, including  $11\frac{1}{2}$  pipe thread.

**Graduation.** The compound rest is graduated in degrees. The cross feed screw has a graduated micrometer collar reading in one-thousandths of an inch.

**Equipment** as shown in cut includes a large and small face plate, plain or compound rest, two steel centers, center rest, follower rest, change gears and adjustable stop for screw cutting, necessary wrenches, and double friction countershaft.

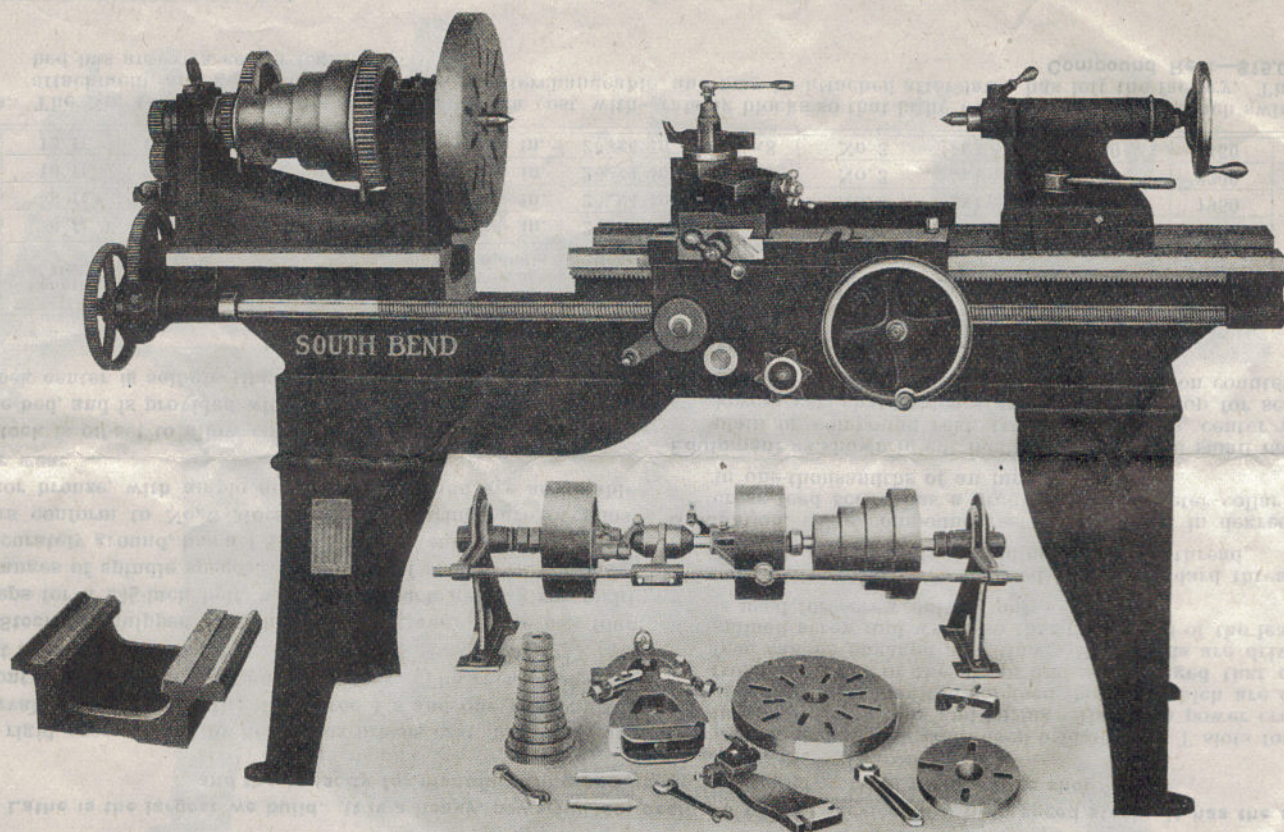
Regular equipment, as illustrated under lathe, is included in price.

No. of Lathe	Length of Bed	Distance Between Centers	Swing Over Bed	Swing Over Carriage	Hole Through Spindle	Diam. Front Bearing	Diameter of Spindle Nose	Taper in Spindle Morse	Opening in Tool Post	Countershaft Speed	Weight on Skids	Price Plain Rest
44	6 ft.	33 in.	18 $\frac{1}{4}$ in.	13 $\frac{1}{8}$ in.	1 $\frac{5}{8}$ in.	2 $\frac{3}{8}$ x4 in.	2 $\frac{3}{8}$ x8	No. 3	$\frac{1}{16}$ x1 $\frac{5}{8}$	180	1700	\$300.00
44	8 ft.	57 in.	18 $\frac{1}{4}$ in.	13 $\frac{1}{8}$ in.	1 $\frac{5}{8}$ in.	2 $\frac{3}{8}$ x4 in.	2 $\frac{3}{8}$ x8	No. 3	$\frac{1}{16}$ x1 $\frac{5}{8}$	180	1950	330.00
44	10 ft.	81 in.	18 $\frac{1}{4}$ in.	13 $\frac{1}{8}$ in.	1 $\frac{5}{8}$ in.	2 $\frac{3}{8}$ x4 in.	2 $\frac{3}{8}$ x8	No. 3	$\frac{1}{16}$ x1 $\frac{5}{8}$	180	2200	360.00
44	12 ft.	105 in.	18 $\frac{1}{4}$ in.	13 $\frac{1}{8}$ in.	1 $\frac{5}{8}$ in.	2 $\frac{3}{8}$ x4 in.	2 $\frac{3}{8}$ x8	No. 3	$\frac{1}{16}$ x1 $\frac{5}{8}$	180	2450	400.00

**Extras.** The No. 44 Lathe may be supplied at extra cost with—raising blocks so that lathe will turn and bore 24-inch swing, taper attachment, and gear guards. Extras are interchangeable, and may be attached after lathe has left the factory. The 12-foot bed has an extra center leg.

Compound Rest—\$15.00 Extra.





South Bend Gap Lathe, 16"-24"—16-inch Swing, 6-foot Bed  
Equipped with Automatic Longitudinal Feed and Power Cross Feed

South Bend, Indiana.

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## SOUTH BEND LATHES WITH GAP BEDS

The Practical Lathe for all around work in the machine and repair shop, adapted to handling work of both small and large diameter. Gap Lathes are furnished only, equipped with compound rest and bridge.

**Sizes.** We build the 11-inch, 12-inch, 13-inch, 16-inch and 18-inch South Bend Lathes with gap bed when desired. For description and dimensions of gap bed lathes, see that of straight bed lathes, as the only difference between the two is the gap construction of the bed, which requires more strength.

**Illustration** on opposite page shows our 16-24-inch No. 40 Lathe fitted with compound rest and gap bed. The bridge, it will be seen, has been removed from the bed and rests on the floor at the left end of lathe. The illustration shows carriage mechanism transposed. This allows the carriage to pass over the entire width of the gap without letting down.

**Bridge** is used to close up the gap so that the lathe may be used as a straight bed for ordinary work. When work of large diameter is to be machined, bridge may be removed from bed in a few moments, as it is accurately machined, scraped and fitted to gap, located by means of dowel pins and held in position by four substantial bolts. Bridge must be fitted in lathe at factory.

**Equipment.** The regular equipment for gap lathes is the same as that shown for straight bed lathes of similar size. The No. 29 and No. 35 lathes are not fitted with gap bed.

Regular equipment, as illustrated under lathe, is included in price.

### PRICE OF GAP LATHES AND BRIDGE ADVANCED OVER STRAIGHT BED LATHES AS FOLLOWS

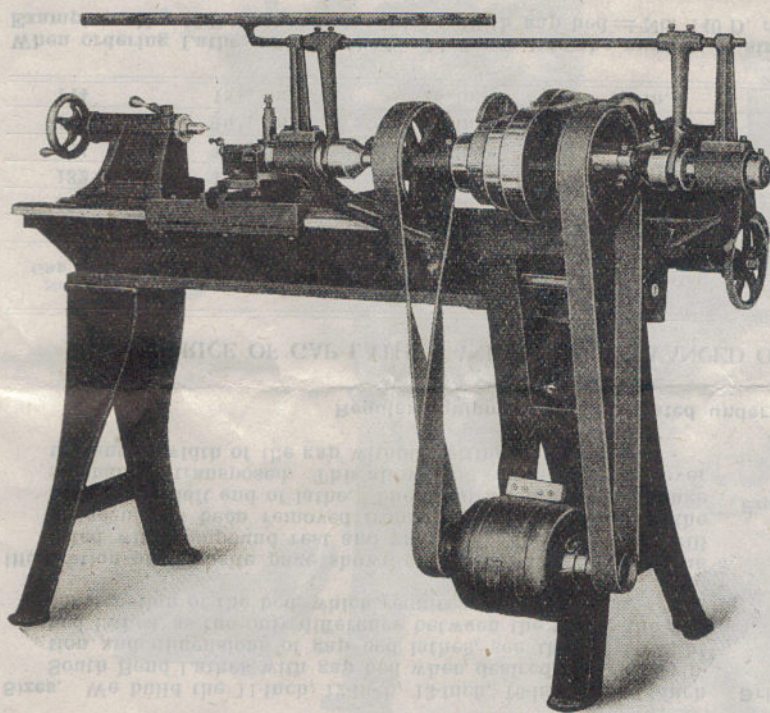
No. of Gap Lathe	Swing over Bed	Swing over Gap	Width of Gap	Length of Beds	Extra Weight of Gap Bed	Price Gap Bed	Price Bridge
128	11¼ in.	15 in.	5 in.	4, 5, 6 ft.	50 lbs.	\$10.00	\$ 7.00
130	12¼ in.	17 in.	6 in.	5, 6, 7, 8 ft.	75 lbs.	10.00	8.00
132	13¼ in.	19 in.	7 in.	5, 6, 7, 8 ft.	100 lbs.	12.00	10.00
134	13¼ in.	19 in.	7 in.	5, 6, 7, 8 ft.	100 lbs.	12.00	10.00
140	16¼ in.	24 in.	8¾ in.	6, 8, 10, 12 ft.	125 lbs.	15.00	15.00
144	18¼ in.	26 in.	10 in.	6, 8, 10, 12 ft.	150 lbs.	20.00	20.00

When ordering Lathe with gap bed, add figure 1 to the number of straight bed lathe and the word gap to code word.  
Example—No. 40 D Lathe, code, Juice. With gap bed—No. 140 D, code, Juicegap.

**Extras.** The gap bed lathe may be supplied with the same extras as the straight bed lathes.



## SOUTH BEND ELECTRIC MOTOR DRIVE ATTACHMENT



### REVERSIBLE DOUBLE DRIVE METHOD

Cut shows No. 34 South Bend Lathe equipped with our Double Belt Reversible Drive Attachment.

A Cast Iron Bracket, carrying both countershaft and motor, is pivoted to a casting attached to the lathe bed, as shown. This bracket is adjustable as a belt tightener, between countershaft and spindle cones. Adjustment is made from a lever in front of lathe, the belt may be tightened while lathe is running. Belts from motor to countershaft may also be tightened by a simple adjustment on base of motor.

The starting, stopping, and reversing of lathe, and the variation of speed is obtained through the countershaft in the regular way as though countershaft was attached to ceiling. This is made possible by the REVERSE BELT on Motor.

The operator has complete control of the lathe, through the horizontal shipping bar shown in cut. The lathe is started, stopped and reversed by shipper bar. Cross belt may be run on pulley when reverse is not used. Length of belt from C. S. cone to spindle Cone, 53 inches.

The knife switch may be placed at any convenient position on the lathe. Starting Box may also be used, but it not necessary, as knife switch starts countershaft friction pulleys only, which are running loose on shaft not under load.

Customers may furnish motor, or we will supply it. Any Constant Speed Motor, alternating or direct current, having a speed of 900 or 1200 r. p. m. will serve.

When ordering motor drive, observe the following specifications:

- Armature shaft long enough for pulley on each end.
- Current: Direct or Alternating.
- If Alternating: Give Voltage, Phase and Cycle.
- If Direct: Give Voltage.

### HORSE POWER REQUIRED FOR DRIVING SOUTH BEND LATHES UNDER THE FULL LOAD

Size of Lathe .....	11"	12"	13"	16"	18"
Horse Power of Motor.....	1/2 H. P.	1/2 H. P.	1 H. P.	2 H. P.	2 1/2 H. P.
Countershaft, R. P. M. ....	300	300	300	250	250

South Bend, Indiana.

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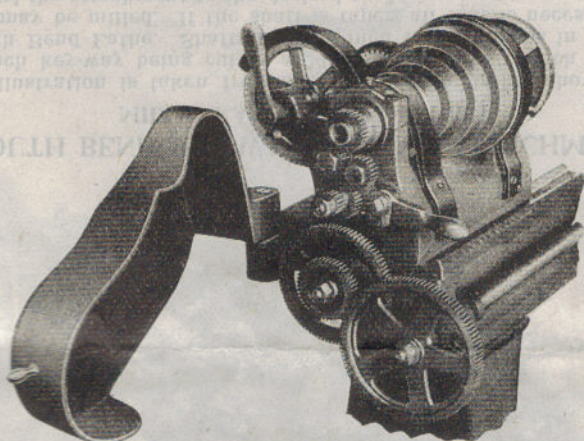


Fig. 1. Hinged Guard Open

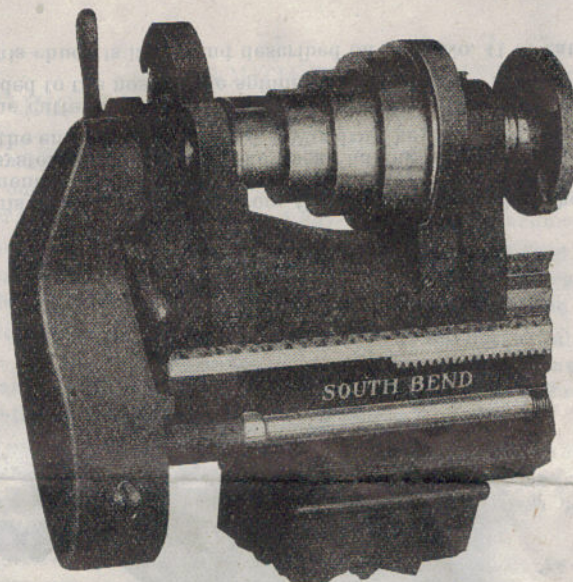


Fig. 2. Hinged Guard Closed

### GEAR GUARDS

The illustration shows the appearance of South Bend Lathes when gear guards are attached. These guards are made of cast iron and completely cover all gears.

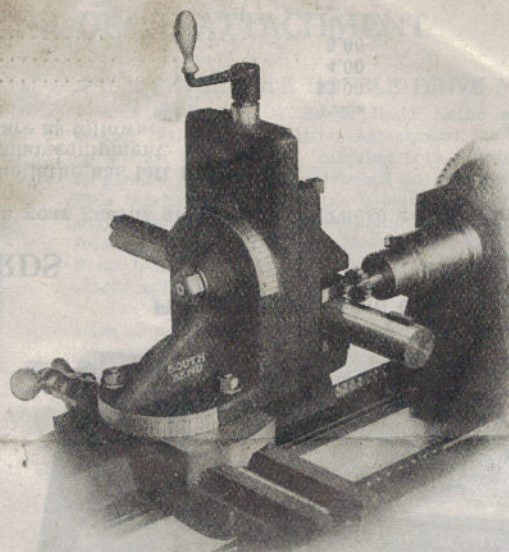
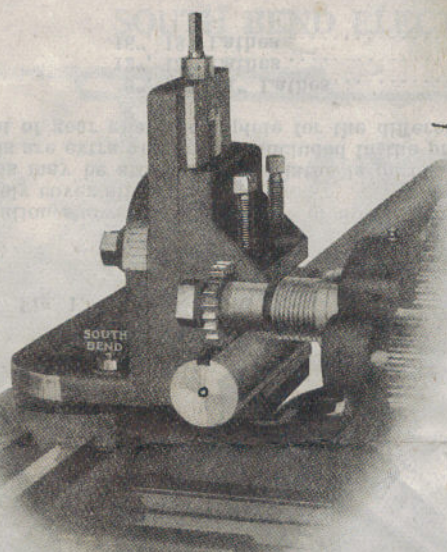
Gear guards may be attached when lathe is purchased or after the lathe has left the factory.

Gear guards are extra and are not included in the price of the regular equipment.

Price of set of gear guards complete for the different size lathes are as follows:

	Price
9", 10", 11" Lathes.....	\$3.00
12", 13" Lathes .....	4.00
16", 18" Lathes .....	5.00





### SOUTH BEND KEY-WAY CUTTING ATTACHMENT MILLING A KEY-WAY IN SHAFT

Illustration is taken from the back of the lathe, showing a  $\frac{3}{8}$ -inch key-way being cut in a 2-inch shaft on a 13-inch No. 34 South Bend Lathe. Shafts from  $\frac{3}{8}$  inch to  $2\frac{1}{2}$  inches in diameter, may be milled. If the shaft is taper, all that is necessary is swivel the attachment to the desired angle.

We furnish arbors for holding milling cutters with  $\frac{3}{4}$ ,  $\frac{7}{8}$  and 1 inch standard holes. Arbors are fitted to lathe spindles. For price and description see page 41.

### MILLING; WOODRUFF SYSTEM OF KEY-WAY CUTTING

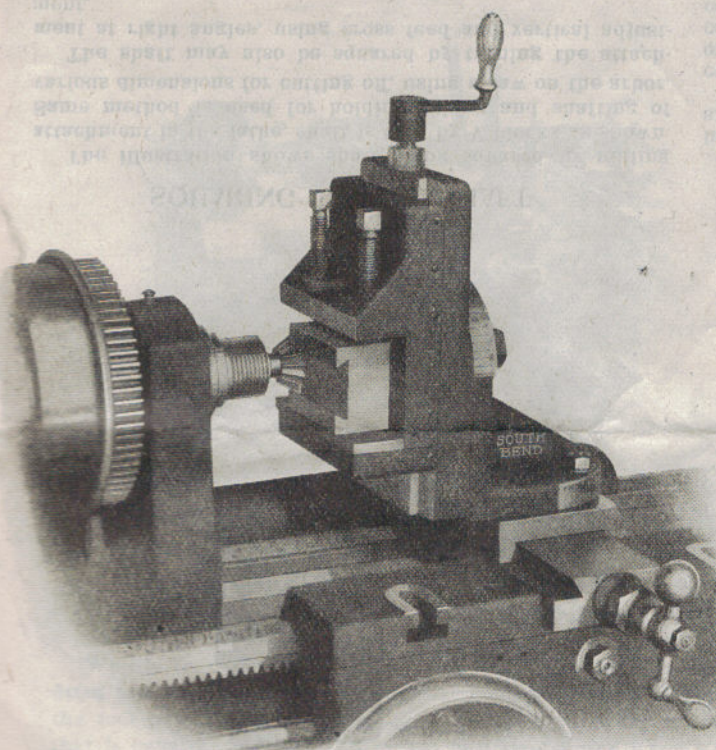
This illustration taken from the back of the lathe, shows attachment holding a shaft which is being key seated for the Woodruff system of keying, one key seat having already been milled near the end of the shaft, and a Woodruff key inserted.

The cutter is held in our blacksmith's drilling chuck, which is threaded to the nose of the spindle.

This chuck is listed and described on page No. 41 of catalog.

South Bend, Indiana.

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### SOUTH BEND MILLING AND KEY-WAY CUTTING ATTACHMENT

Illustration shows piece of cast iron being milled by an angle cutter which also acts as a face mill. The piece being machined is held in our milling and key-way cutting attachment.

The depth of cut is controlled by the longitudinal feed of the carriage; the length of the cut by the cross feed of the carriage, and the width of the cut by the vertical adjustment of the screw.

The attachment swivels all way round on the horizontal plane, and is graduated in degrees. It swivels 180 degrees in the vertical plane, and is graduated. There is a graduated collar reading in one-thousandths of an inch on the vertical screw.

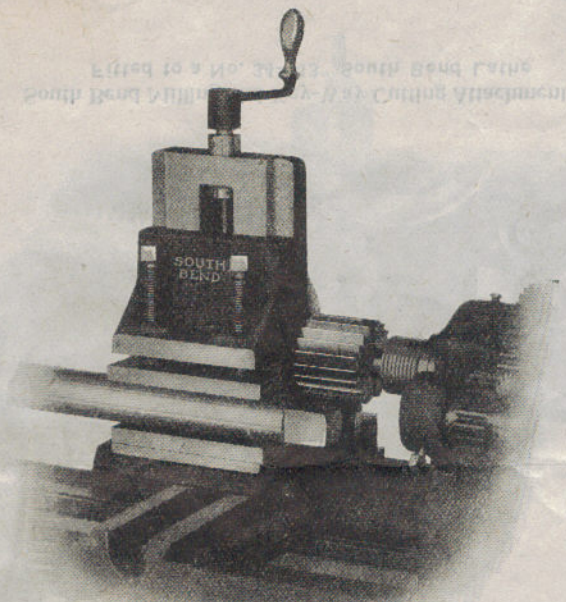
To equip attachment to lathe, remove the top part of the compound rest, bringing the attachment over center pin found on base, fasten bolts and it is ready for work. Attachment can be used only with lathe fitted with compound rest.

Equipment consists of milling attachment complete; two steel V blocks, one crank, one double end wrench, two bolts and nuts for attaching.

Size of Attachment	No. 1	No. 3	No. 5
Code.....	Vale	Victor	Volt
Size of Lathe used on.....	11"	12", 13"	16", 18"
Vertical Feed.....	3"	5"	7"
Cross Feed.....	4"	6"	8"
Vise will hold.....	1½"	2¾"	4"
Depth of Jaws.....	1"	1½"	1¾"
Width of Jaws.....	3½"	5"	6"
Price.....	\$30.00	\$35.00	\$40.00

South Bend Milling and Key-Way Cutting Attachment  
Fitted to a No. 34—13" South Bend Lathe

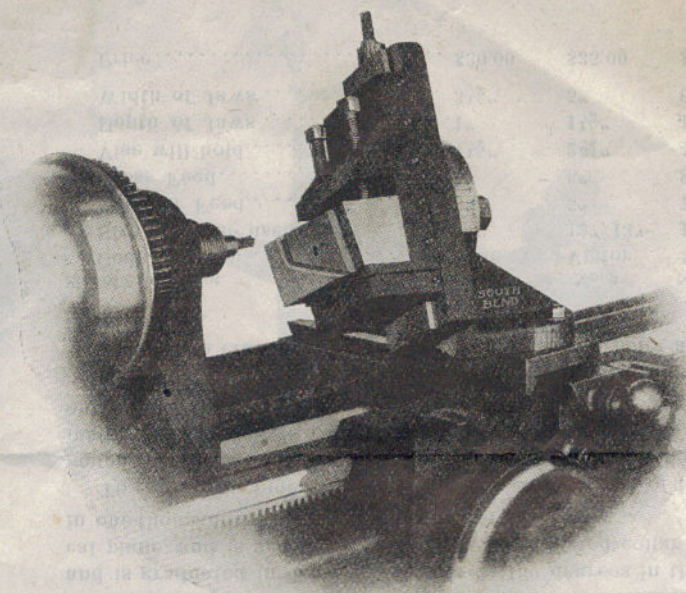




### SQUARING A STEEL SHAFT

The illustration shows shaft being squared by milling attachment in the lathe, shaft is held by V blocks as shown. Same method is used for holding tubing and shafting of various dimensions for cutting off, using a saw on the arbor.

The shaft may also be squared by turning the attachment at right angles, using cross feed and vertical adjustment.



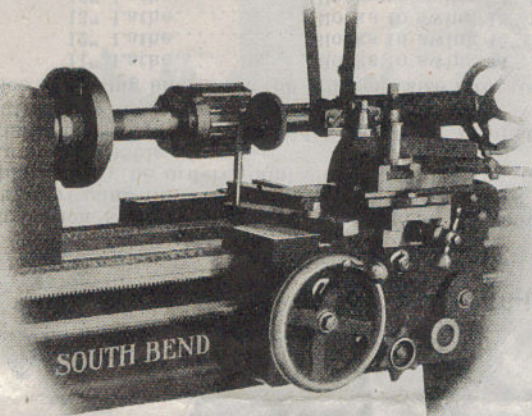
### A DIFFICULT MILLING JOB

The illustration shows a rather difficult milling job to be done on a lathe. The attachment is swiveled on an angle of 15 degrees with the axis of spindle. The vertical slide is thrown on an angle of 20 degrees.

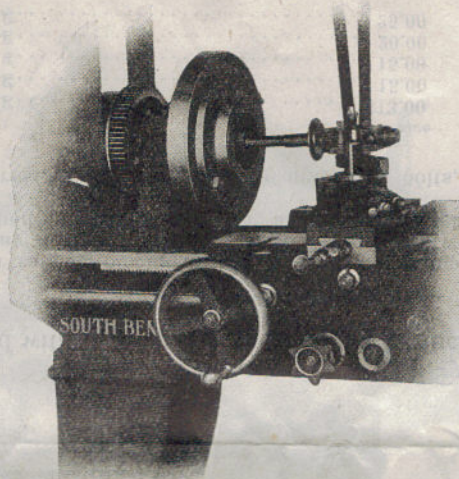
In the five illustrations selected, showing the milling and keyway cutting attachment, we have shown only a few of the hundreds of jobs on which this attachment may be used. It is practical in the shop because it equips the lathe for doing a great deal of work that otherwise could be done only on the shaper or milling machine.

South Bend, Indiana.

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Backing Off a Large Shell Reamer on Lathe



Grinding a Blanking Die on Lathe

### GRINDING ATTACHMENT FOR LATHE

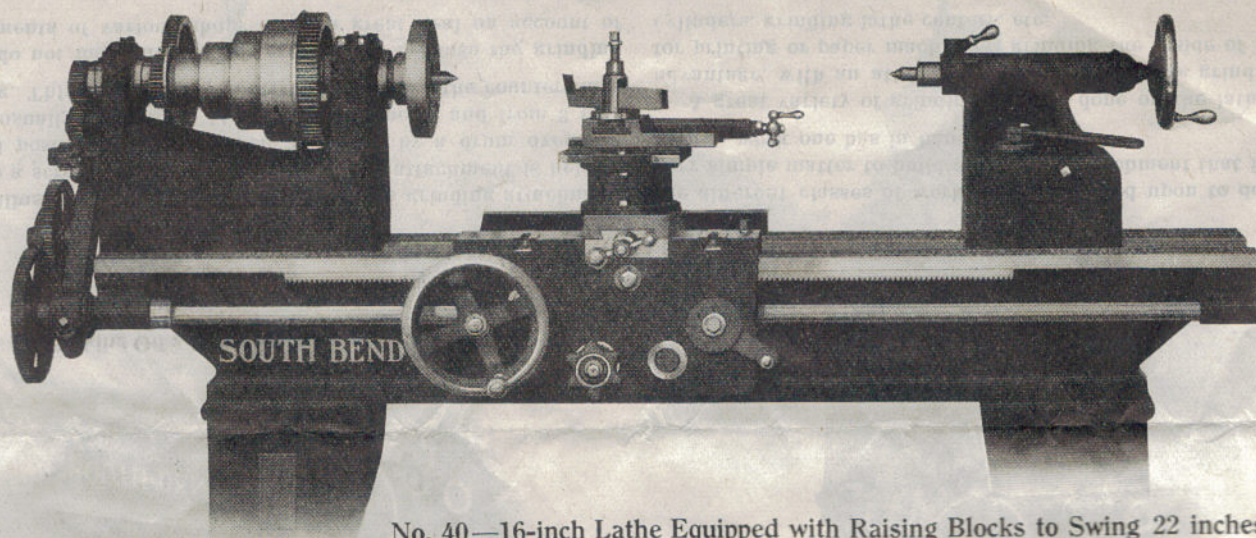
We illustrate above two applications of a grinding attachment fitted to a screw cutting engine lathe. This attachment is held in the tool post. The emery wheel is driven by a drum overhead that is usually from 10 to 14 inches in diameter and from 3 to 4 feet long. This drum is in turn driven from the lathe countershaft.

We do not manufacture this attachment because the grinding requirements of various shops differ a great deal on account of

the different classes of work they are called upon to do. It is a very simple matter to build a grinding attachment that is suitable for the work one has in hand.

A great variety of grinding may be done on the lathe to good advantage, with an attachment like this, such as grinding a roll for printing or paper machinery, grinding the inside of an engine cylinders, grinding lathe centers, etc.





No. 40—16-inch Lathe Equipped with Raising Blocks to Swing 22 inches

Illustration shows the general appearance of South Bend Lathes with raising blocks attached. The advantage of raising blocks for increasing the swing of a lathe, is, that work of large diameter may be machined the entire distance between centers. Raising blocks may be ordered and shipped with lathe, or they may be attached any time thereafter, as they are machined in jigs and are interchangeable.

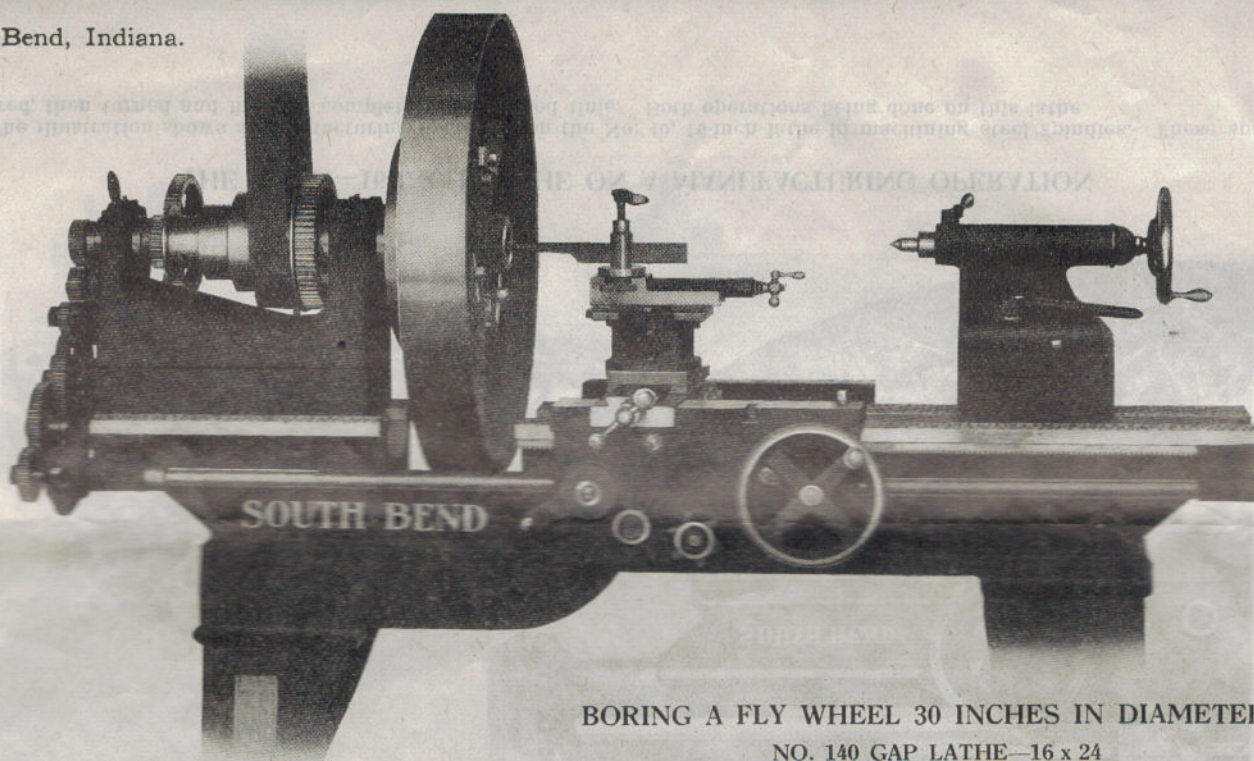
Raising block equipment includes blocks for head stock, tail stock, tool rest, center rest, also the necessary bolts, screws and nuts for attaching blocks to lathe.

Price of raising blocks for the different size lathes as follows:

	Price
11" Lathe.....Blocks to swing 14" for turning and boring.....	\$13.00
12" Lathe.....Blocks to swing 15" for turning and boring.....	15.00
13" Lathe.....Blocks to swing 18" for turning and boring.....	15.00
16" Lathe.....Blocks to swing 22" for turning and boring.....	20.00
18" Lathe.....Blocks to swing 24" for turning and boring.....	25.00

South Bend, Indiana.

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BORING A FLY WHEEL 30 INCHES IN DIAMETER

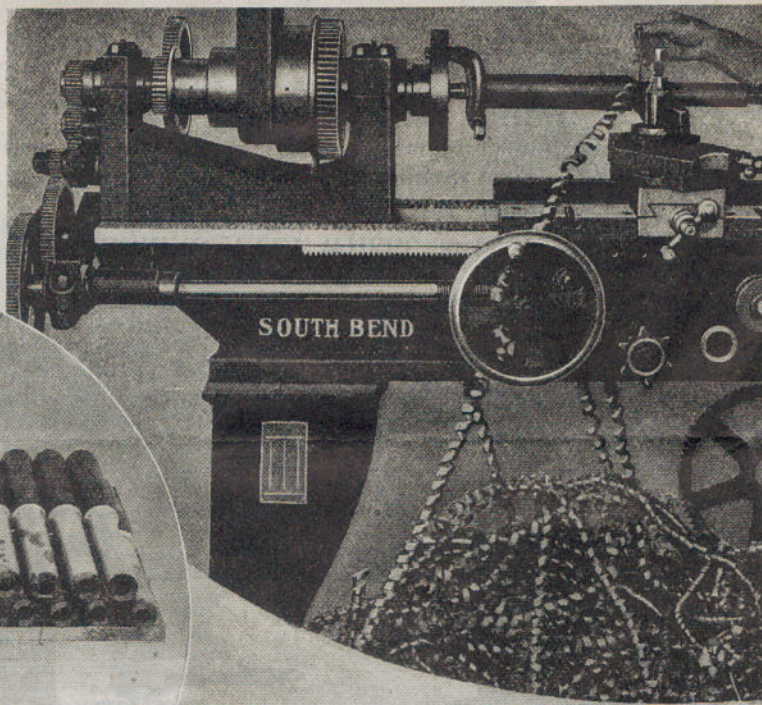
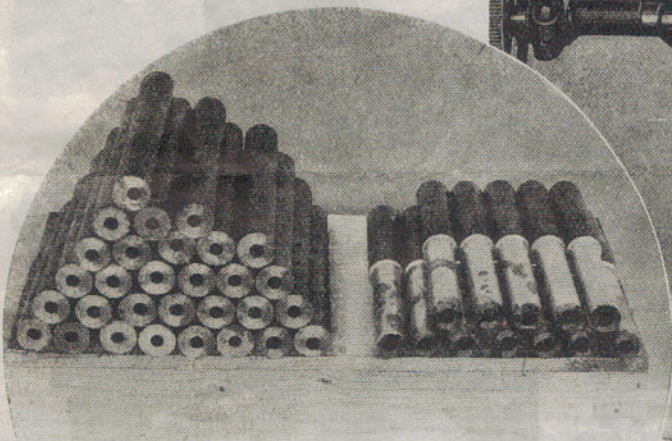
NO. 140 GAP LATHE—16 x 24

Fitted with Raising Blocks to Swing 30" over Gap.

	Price
No. 128 Lathe swings over gap 15".	Blocks to swing over gap 18".....\$13.00
No. 130 Lathe swings over gap 17".	Blocks to swing over gap 20".....15.00
No. 132 Lathe swings over gap 19".	Blocks to swing over gap 24".....15.00
No. 134 Lathe swings over gap 19".	Blocks to swing over gap 24".....15.00
No. 140 Lathe swings over gap 24".	Blocks to swing over gap 30".....20.00
No. 144 Lathe swings over gap 26".	Blocks to swing over gap 32".....25.00



Taking a Heavy Chip  
on a Steel Shaft



### THE No. 40—16-INCH LATHE ON A MANUFACTURING OPERATION

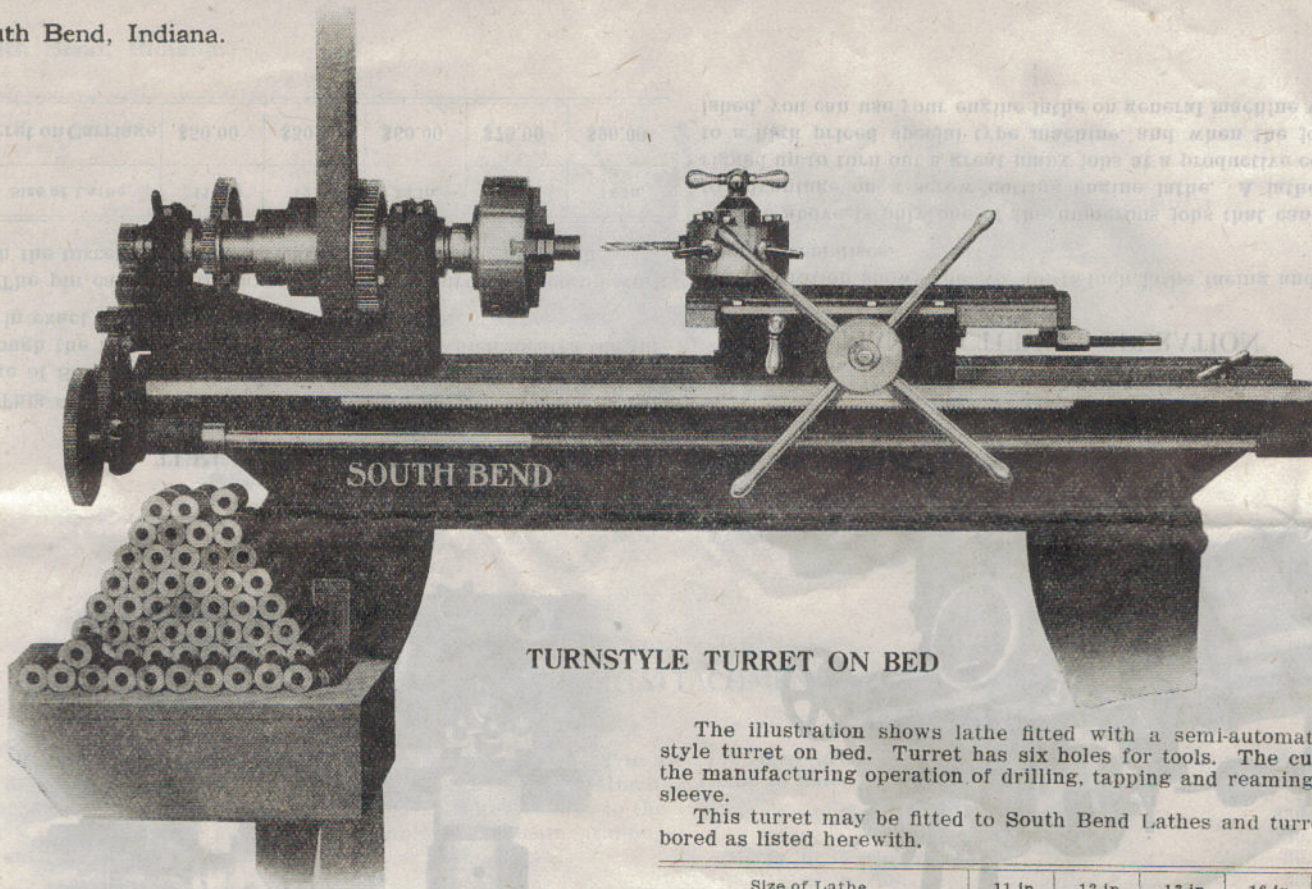
The illustration shows a manufacturing operation on the No. 40, 16-inch lathe in machining steel spindles. These spindles are first bored, then turned and finished complete in very good time. Both operations being done on this lathe.

South Bend, Indiana.

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South Bend, Indiana.

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### TURNSTYLE TURRET ON BED

The illustration shows lathe fitted with a semi-automatic turnstyle turret on bed. Turret has six holes for tools. The cut shows the manufacturing operation of drilling, tapping and reaming a steel sleeve.

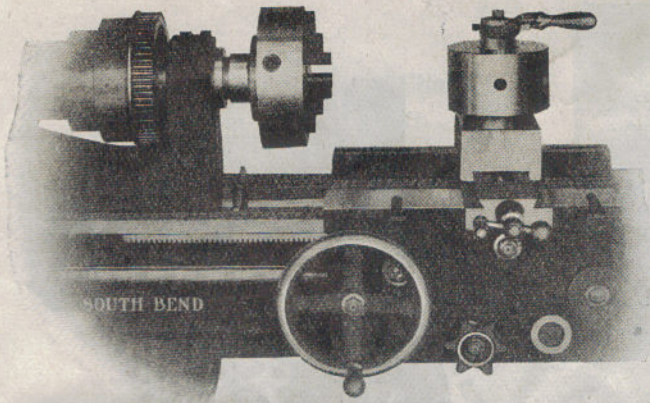
This turret may be fitted to South Bend Lathes and turret holes bored as listed herewith.

Size of Lathe	11 in.	12 in.	13 in.	16 in.	18 in.
Turnstyle Turret on Bed	\$100.00	\$110.00	\$115.00	\$140.00	\$170.00

South Bend Machine Tool Co.

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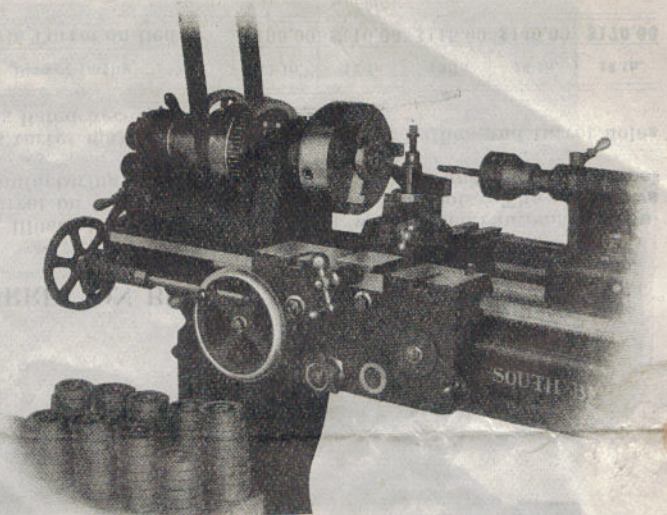


TURRET ON CARRIAGE

This 6-hole turret, semi-automatic, can be attached to the carriage of South Bend Lathes. A taper pin is provided for locking through the base of turret into the carriage which locates the turret in exact alignment with the lathe spindle.

The pin can be withdrawn when it is desired to face up work with the turret. Price of carriage turret is listed herewith.

Size of Lathe	11 in.	12 in.	13 in.	16 in.	18 in.
Turret on Carriage	\$50.00	\$50.00	\$60.00	\$75.00	\$90.00



MANUFACTURING OPERATION

Illustration shows the No. 40, 16-inch lathe facing and drilling a lot of steel discs.

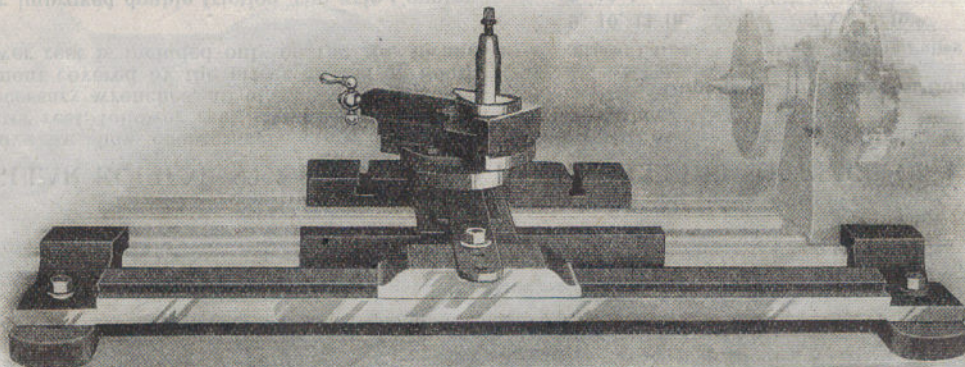
The above is only one of the numerous jobs that can be done to advantage on a screw cutting engine lathe. A lathe can be rigged up to turn out a great many jobs at a productive cost equal to a high priced special type machine, and when the job is finished, you can use your engine lathe on general machine work.

South Bend, Indiana.

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South Bend, Indiana.

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TAPER ATTACHMENT

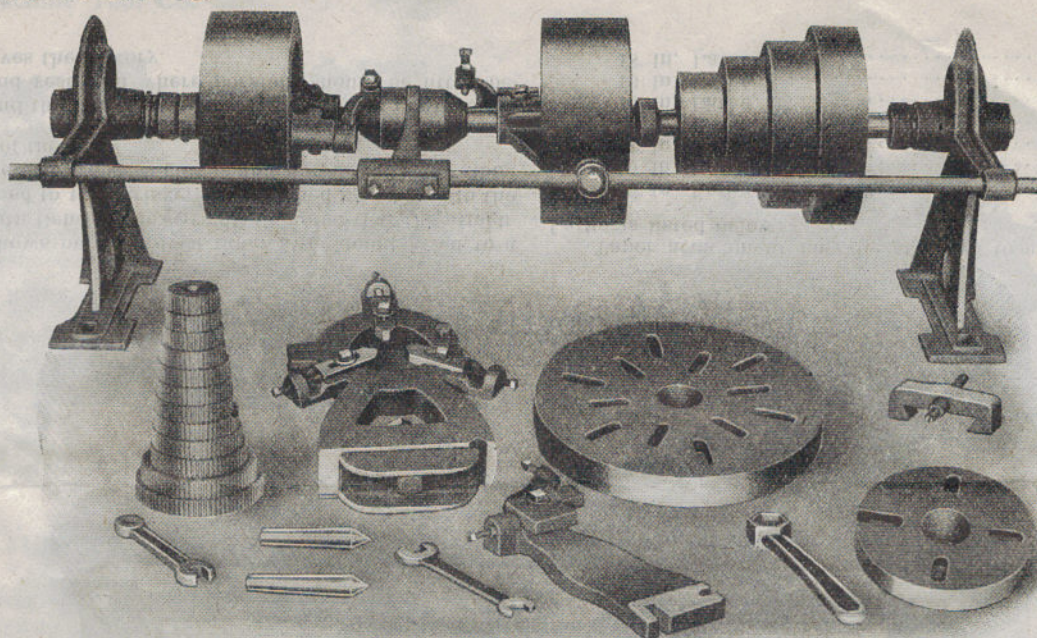
Illustration shows our improved taper attachment fitted to a No. 34 13-inch South Bend Lathe. It will be noted that the attachment is not fastened to the carriage, but attached by clamps to the rear V of the lathe bed proper. This enables an adjustment along the entire length of the bed.

We recommend that taper attachment be used in conjunction with the compound rest, and where possible should be fitted before the lathe leaves the factory.

Taper attachment may be attached to any size South Bend Lathe as listed below:

9 in. Lathe.....	\$30.00
10 in. Lathe.....	30.00
11 in. Lathe.....	30.00
12 in. Lathe.....	35.00
13 in. Lathe.....	35.00
16 in. Lathe.....	40.00
18 in. Lathe.....	45.00





### REGULAR EQUIPMENT OF DETACHED PARTS INCLUDED IN PRICE OF LATHE

In illustration above we show countershaft, large face plate, small face plate, center rest, follower rest, change gears, thread gage, centers and necessary wrenches, all of which are included in the regular equipment covered by the prices quoted on South Bend Lathes. Follower rest is included only on the No. 40 and 44 Lathes.

The cut shows our improved double friction, rim grip Countershaft, simple in design, easy in adjustment, powerful in grip, nothing to get out of order. It is without doubt the most efficient

countershaft on the market, differing in dimensions for the different size lathes.

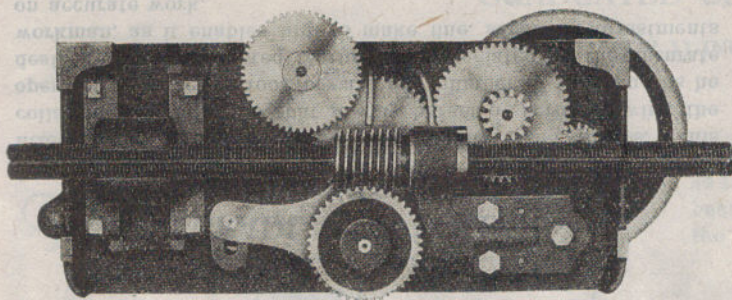
Dimension and Speed of Countershaft

Size of Lathe	Size of Friction Pulley	Speed of Countershaft
9, 10, 11 in.	7 x 2 in.	250 R. P. M.
12, 13 in.	8 x 2½ in.	225 R. P. M.
16, 18 in.	10 x 4 in.	180 R. P. M.

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South Bend, Indiana.

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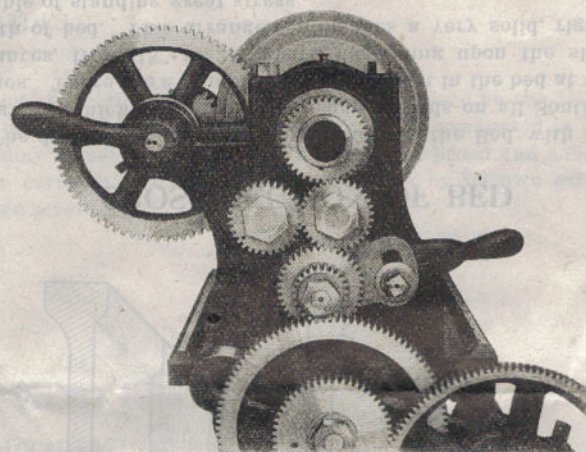


### AUTOMATIC FEED MECHANISM OF APRON

Illustration shows inside view of the apron of our Nos. 29, 34, 35, 40 and 44 Lathes. This shows the simplicity of the automatic longitudinal feed, and power cross feed, both of which are driven by splined screw and worm. By this arrangement the power transmitted to the spindle is delivered to the apron with full efficiency. This simple positive drive explains why the South Bend Lathes can take such a powerful feed.

By this method the thread of the lead screw is used for cutting threads only. This is why the lead screws of South Bend Lathes should last a life time.

Another important point shown in this apron is that the cross feed or the longitudinal feed cannot drop in, as they can be engaged only one at a time. This feature will be appreciated by the operator.

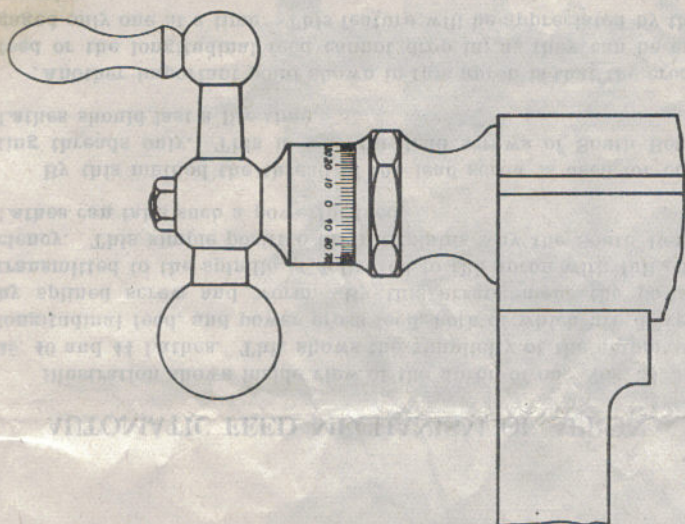


### IMPROVED REVERSE

The cut shows our improved reverse, which is fitted on the 11", 12", 13", 16" and 18" South Bend Lathes. It is built for service. Reverse is within easy reach of the operator at all times. For cutting threads right or left, feeding right or left, and can be operated instantly without changing a gear, or it may be left in neutral position, as when spindle is running at high speed for filing, polishing, etc. The reverse will be found a very attractive feature.

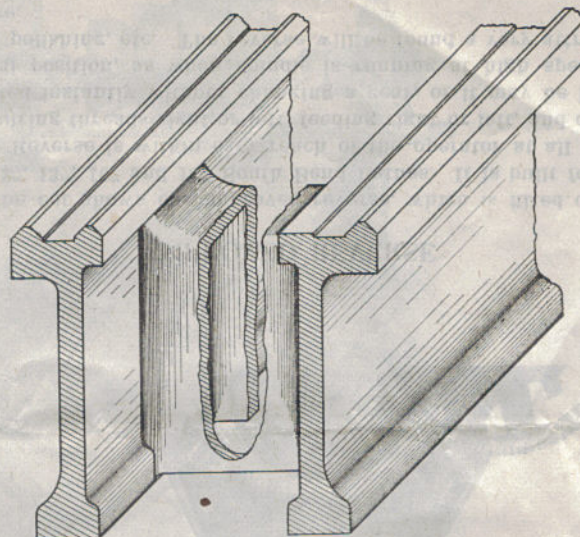
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GRADUATED COLLAR

The illustration shows the micrometer graduated collar that is fitted to the cross feed screw on all South Bend Lathes. This collar is adjustable, so that it may be set at zero, allowing the operator to move his tool forward any number of thousandths he desires. This graduated feature is appreciated by the accurate workman, as it enables him to make fine, sensitive adjustments on accurate work.



CROSS SECTION OF BED

The drawing shows a cross section of Lathe Bed, with box rib cut away, which is the general design of beds on all South Bend Lathes. There are a number of box ribs cast in the bed at various distances, from 18" to 24" apart, depending upon the size and length of bed. This arrangement makes a very solid, rigid bed, capable of standing great stress.

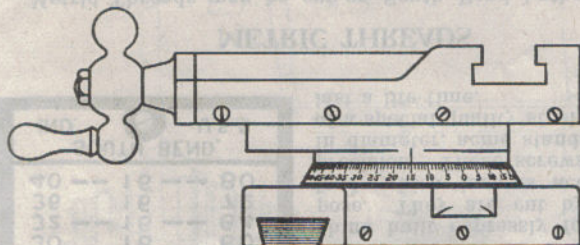
The 9", 10" and 11" lathe beds have plain ribs.

South Bend, Indiana.

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## GRADUATED COMPOUND REST

FOR 11-INCH LATHES



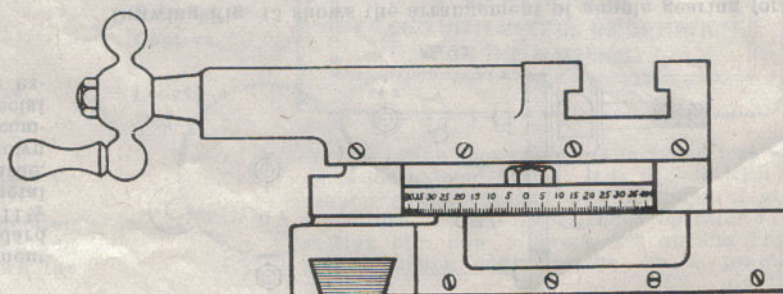
This cut shows the design of Compound Rest used on the 11" Lathe. This rest is strong and rigid, accurately built; is graduated in degrees so that it may be set at any desired angle, has a broad and substantial bearing on carriage, and may be operated both by its own screw and the carriage screw.

## GRADUATED COMPOUND REST

FOR 12-, 13-, 16- AND 18-INCH LATHES

This cut shows the general design of our Compound Rest that is used on the 12", 13", 16" and 18" lathes. This Rest is heavy, well built and accurate. It swivels all the way around, is fastened by two T bolts. It is graduated in degrees so that various angles may be obtained. It may be operated both by its own screw and the carriage screw.

Varies in dimensions only for the different size lathes.





SOUTH BEND MACHINE TOOL CO. MANUFACTURERS		
THD. SPINDLE SCREW		
4	64	32
5	64	40
6	64	48
7	64	56
8	32	32
9	64	72
10	32	40
11	32	44
11 1/2	32	46
12	32	48
13	32	52
14	32	56
16	32	64
18	32	72
20	32	80
22	16	44
24	16	48
26	16	52
28	16	56
30	16	60
32	16	64
36	16	72
40	16	80
SOUTH BEND, IND. U.S.A.		

## THREAD CUTTING

The chart shows the arrangement of gears for cutting all standard threads from 4 to 40 including 11 1/2 pipe thread. One of these metal charts is attached to each lathe. Many threads other than shown may be cut on the lathe by compounding gears, and if special threads are required, only one extra gear is necessary.

## FEED GEARS

There are also a pair of compound feed gears furnished in the equipment for turning and boring. These gears are not shown in chart.

## LEAD SCREW

The lead screws on South Bend Lathes are cut on a special machine built expressly for this purpose. They are cut by a master lead, which insures accuracy and precision. These screws are large in diameter, acme standard thread, of a special quality steel and should last a life time.

## METRIC THREADS

Metric Threads may be cut on South Bend Lathes with the standard lead screw by using transposing gears, furnished at extra cost. When Metric Threads exclusively are to be cut, we furnish a Metric Lead Screw.

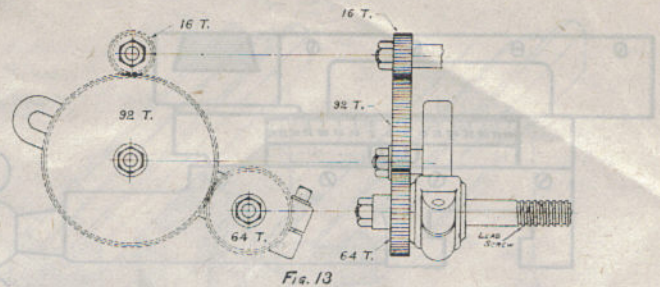


Fig. 13

Drawing Fig. 13 shows the arrangement of simple gearing for thread cutting.

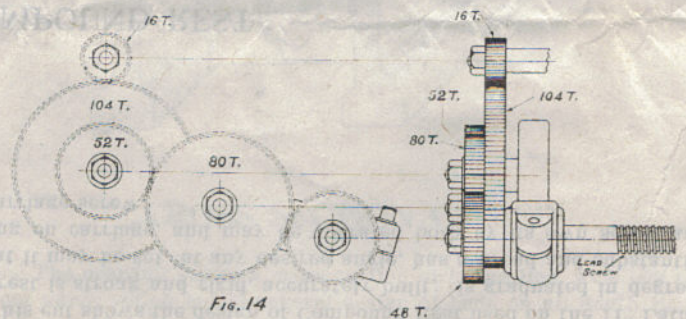


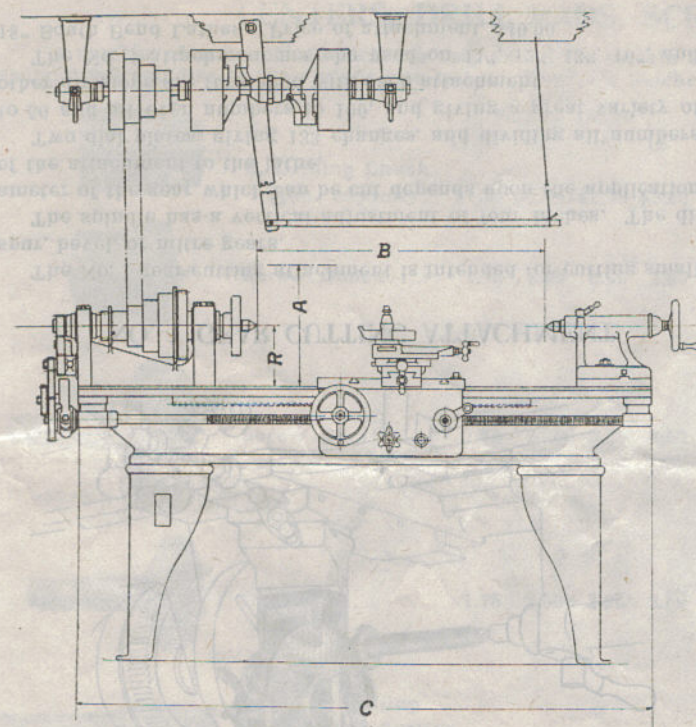
Fig. 14

Drawing Fig. 14 shows the arrangement of compound gearing for thread cutting.

The above two drawings are taken from "How to Run a Lathe," where the subject of thread cutting is fully explained.

South Bend, Indiana.

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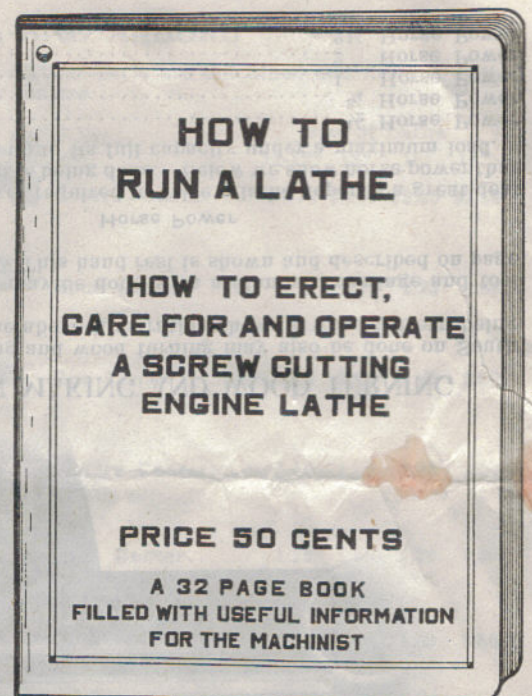


## ERECTION PLAN FOR SOUTH BEND LATHE

The drawing above shows a front elevation plan for erecting South Bend Lathes. The method of erecting is fully shown and described in the book "How to Run a Lathe," from which the drawing is taken.

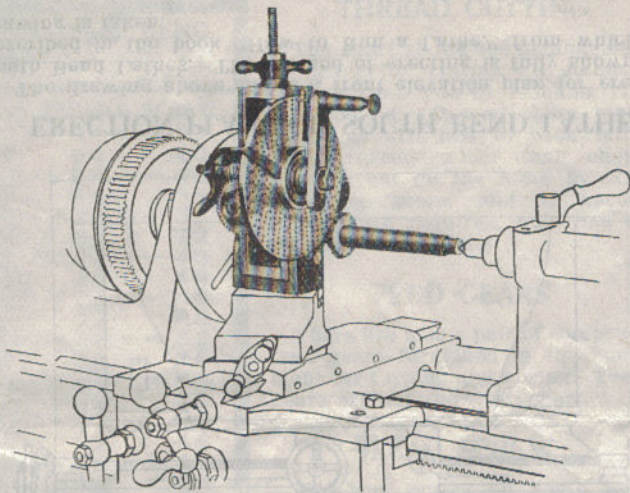
## General Dimensions of South Bend Lathes

- A = Swing over Bed.
- R = Radius, one-half of the swing.
- B = Distance Between Centers.
- C = Length of Bed.



One of the above books is included free with each South Bend Lathe. It is packed with the regular equipment and will be found of great assistance to the inexperienced operator in directing him how to erect, set up and run a screw cutting engine lathe in a practical manner.





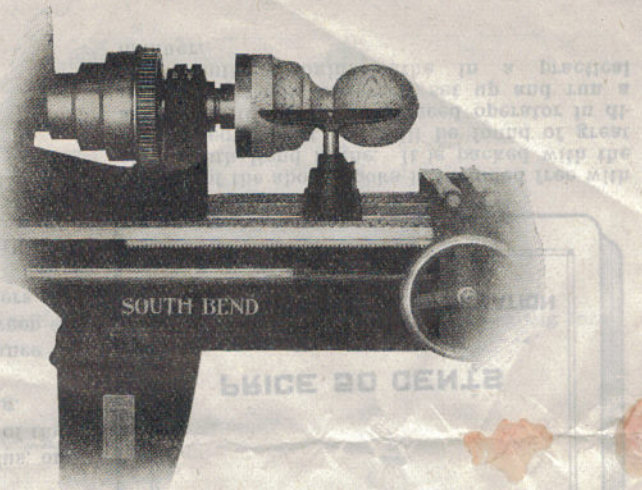
### NO. 1 GEAR CUTTING ATTACHMENT

The No. 1 gear cutting attachment is intended for cutting small spur, bevel, or mitre gears.

The spindle has a vertical adjustment of four inches. The diameter of the gear which can be cut depends upon the application of the attachment to the lathe.

Two dial plates, giving 133 changes, and dividing all numbers to 50 and all even numbers to 100, and giving a great variety of other divisions are furnished with each attachment.

The No. 1 attachment may be used on 11", 12", 13", 16", and 18" South Bend Lathes. Price of attachment, \$40.00.



### PATTERN MAKING AND WOOD TURNING

Pattern making and wood turning may also be done on South Bend Lathes. The above illustration shows a wood pattern being machined.

Wood turning may be done with a standard carriage and tool or by a hand rest. This hand rest is shown and described on page 43 of catalog.

#### Horse Power

The horse power required to drive a lathe depends a great deal upon the work that is being done. Below we show horse power that will drive a lathe up to its full capacity under a maximum load.


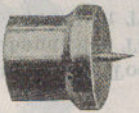

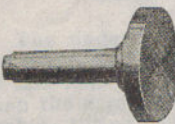

11-inch Lathe.....	1/2	Horse Power
12-inch Lathe.....	3/4	Horse Power
13-inch Lathe.....	1	Horse Power
16-inch Lathe.....	2	Horse Power
18-inch Lathe.....	2 1/2	Horse Power

South Bend, Indiana.

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### CENTERS, DRILL PADS, SCREW CHUCKS, AND ARBORS

A number of accessories which are very useful for certain classes of lathe work. These parts are machined and fitted to both head and tail spindles of the various size lathes. They are finished complete and ready for use.

	Size of Lathe					Size of Lathe			
	11-12"	13"	16"	18"		11-12"	13"	16"	18"
 <b>B. Drilling Chuck</b> 1/2-in. capacity..	\$1.50	\$1.75	\$2.00	\$2.00		\$1.75	\$2.00	\$2.25	\$2.50
 <b>Screw Chuck</b> .....	1.75	2.00	2.25	2.50		1.75	2.00	2.25	2.50
 <b>Screw Center</b> ....	1.75	2.00	2.25	2.50		1.50	2.00	2.25	2.50
 <b>Drill Pad</b> .....	1.75	2.00	2.25	2.50		1.50	1.75	2.00	2.00
 <b>Arbor for Milling and Keyway Cutting Attachment</b> , Size of Arbor, 3/8, 7/8 and 1" diam. ....	4.50	4.50	4.50	4.50		1.25	1.50	1.75	2.00
						1.25	1.50	1.50	1.50
						1.00	1.25	1.50	1.50
					<b>Semi-Machined Drill Chuck Arbor, fitted to lathe spindle</b> .....	.75	.75	1.00	1.00

We recommend the 3/8" arbor as being the most practical size for standard cutters.

We can furnish any of the standard milling cutters desired.

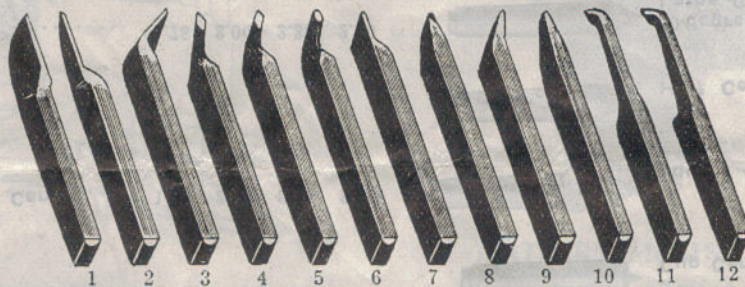
Any drill chuck fitted with arbor will fit both head spindle and tail spindle of the lathe intended.



## TOOL STEEL LATHE TOOLS

An equipment of Lathe Tools is necessary for a lathe. Owing to long experience, we are in a position to furnish lathe tools, made of a good quality crucible tool steel, carefully forged, hardened, tempered and ground, ready for use. All are made in suitable sizes to fit South Bend Lathes.

This set of twelve lathe tools is selected as the most suitable for all around lathe work.



1. Left-hand Side Tool
2. Right-hand Side Tool
3. Right-hand Bent Tool

4. Right-hand Diamond Point
5. Left-hand 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

For 9" and 10" Lathes,	size of steel, $\frac{5}{16} \times \frac{5}{8}$	Length, $4\frac{3}{4}$ "	Price each.....\$ .30	Set of 12.....\$ 3.00	Code, Tarry
For 11" Lathes,	size of steel, $\frac{3}{8} \times \frac{3}{4}$	Length, 5"	Price each..... .40	Set of 12..... 4.00	Code, Tensen
For 12" Lathes,	size of steel, $\frac{1}{2} \times \frac{7}{8}$	Length, 7"	Price each..... .50	Set of 12..... 5.00	Code, Tune
For 13" Lathes,	size of steel, $\frac{1}{2} \times 1$	Length, 7"	Price each..... .60	Set of 12..... 6.00	Code, Tornos
For 16" Lathes,	size of steel, $\frac{5}{8} \times 1\frac{1}{4}$	Length, 9"	Price each..... 1.00	Set of 12..... 10.00	Code, Tory
For 18" Lathes,	size of steel, $\frac{3}{4} \times 1\frac{1}{2}$	Length, 9"	Price each..... 1.00	Set of 12..... 10.00	Code, Toll

## South Bend, Indiana.

These lathe dogs are heavy malleable iron with hardened tool-steel set screw.



## LATHE DOGS

No.	Size	Price Each
No. 1	$\frac{1}{4}$ "	\$.25
No. 2	$\frac{1}{2}$ "	.25
No. 3	$\frac{3}{4}$ "	.35
No. 4	1"	.35
No. 5	$1\frac{1}{4}$ "	.45
No. 6	$1\frac{1}{2}$ "	.50

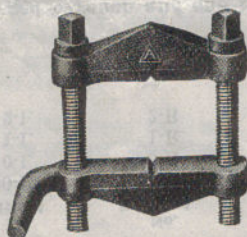
\$2.15 Set of 6A.....\$2.00

No. 7	$1\frac{3}{4}$ "	\$.50
No. 8	2"	.60
No. 9	$2\frac{1}{2}$ "	.75
No. 10	3"	.75
No. 11	$3\frac{1}{2}$ "	.80
No. 12	4"	.90

\$4.30 Set of 6B.....\$4.00  
Set of 12—6A and 6B 5.50

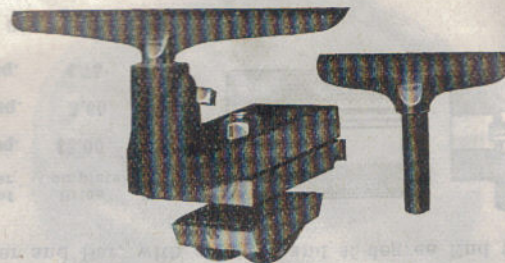
## CLAMP DOGS

The under face of screw heads is convex, fitting into a concave seat, and as the holes in upper bar are larger than the screw this allows for considerable tilting without bending the screws.



No.	Capacity	Price Each
No. 11	$1\frac{1}{4}$ in. between screws	\$1.50
No. 12	$2\frac{1}{4}$ in. between screws	2.00
No. 13	$2\frac{3}{4}$ in. between screws	2.50
No. 14	$3\frac{1}{2}$ in. between screws	3.50

Clamp Dogs, 25 per cent. discount



## HAND REST FOR WOOD TURNING AND PATTERN MAKING

Wood turning and pattern making may also be done on the South Bend Lathes. For this purpose we furnish a hand rest, as shown in above cut. Equipped with two T rests, which are adjustable for height.

Price of Hand Rest Complete

9" and 10" Lathes	.....\$2.50
11" and 12" Lathes	..... 3.50
13" Lathes	..... 4.50
16" Lathes	..... 5.00
18" Lathes	..... 6.00

## FOLLOWER REST

The illustration shows our improved follower rest, which may be used on all sizes of South Bend Lathes.

Price of Rest for the

9" and 10" Lathes	.....\$2.50
11" and 12" Lathes	..... 3.00
13" Lathes	..... 4.00
16 and 18" Lathe rest is included with equipment.	





## PATENT LATHE TOOLS

### TURNING TOOLS

Each Tool is carefully packed in a cardboard box, and price includes one Drop Forged Wrench and two self-hardening Steel Cutters, ground to shape.



No. L. Hand	No. R. Hand	No. Straight	Size of Shank	Size of Cutters	Price Complete	Extra Cutters
00-L	00-R	00-S	$\frac{1}{8}$ x $\frac{3}{4}$ x $4\frac{1}{2}$ "	$\frac{1}{8}$ in. sq.	\$1.60	\$ .10
0-L	0-R	0-S	$\frac{3}{8}$ x $\frac{7}{8}$ x 5"	$\frac{1}{4}$ in. sq.	1.65	.12
1-L	1-R	1-S	$\frac{1}{2}$ x $1\frac{1}{8}$ x 6"	$\frac{3}{8}$ in. sq.	1.80	.18
2-L	2-R	2-S	$\frac{5}{8}$ x $1\frac{3}{8}$ x 7"	$\frac{1}{2}$ in. sq.	2.30	.25

### CUTTING OFF TOOLS

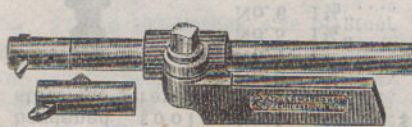
Price List — Complete with Drop Forged Wrench and one Self-Hardening Steel Blade.

Right-Hand Off-set	Size of Shank	Size of Blades	Price Complete	Extra Blades Each
No. 29-R	$\frac{1}{8}$ x $\frac{3}{4}$ "	$\frac{1}{8}$ x $\frac{1}{8}$ "	\$1.65	\$ .25
No. 30-R	$\frac{3}{8}$ x $\frac{7}{8}$ "	$\frac{1}{4}$ x $\frac{3}{8}$ "	1.65	.25
No. 31-R	$\frac{1}{2}$ x $1\frac{1}{8}$ "	$\frac{1}{2}$ x $\frac{3}{4}$ "	1.80	.35
No. 32-R	$\frac{5}{8}$ x $1\frac{3}{8}$ "	$\frac{1}{2}$ x $\frac{7}{8}$ "	2.30	.45

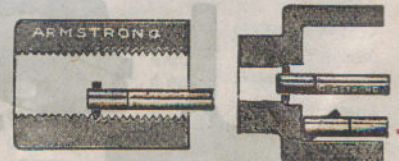


### BORING TOOLS

Each set is carefully packed in a cardboard box. It consists of Holder and Bar, with straight and 45-degree End Caps, two Cutters (ground for boring), and a double end wrench.



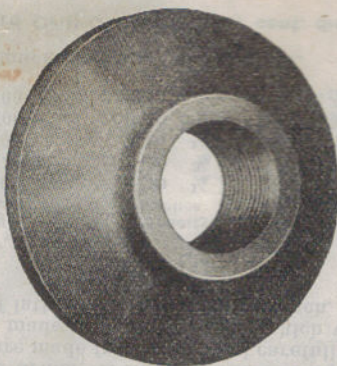
No.	Size of Shank	Size of Bar	Size of Cutter	Price Complete	Extra Cutter
8	$\frac{3}{8}$ x $\frac{7}{8}$ "	$\frac{1}{8}$ " dia.	$\frac{1}{8}$ " sq.	\$3.00	\$ .12
9	$\frac{1}{2}$ x $1\frac{1}{8}$ "	$\frac{3}{4}$ " dia.	$\frac{1}{4}$ " sq.	3.60	.15
10	$\frac{5}{8}$ x $1\frac{3}{8}$ "	$\frac{1}{2}$ " dia.	$\frac{1}{8}$ " sq.	4.75	.20



Patent Lathe Tools on this page, 20 per cent. discount.

South Bend, Indiana.

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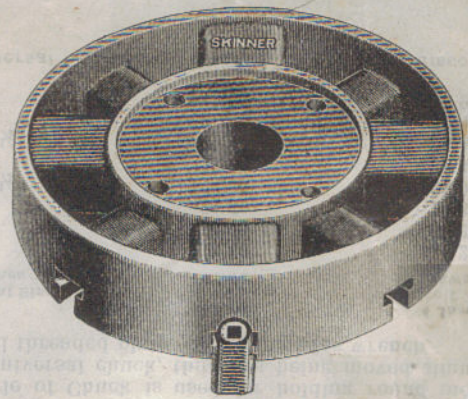
No. 31

### SEMI-MACHINED CHUCK PLATE

Fig. 31 shows a semi-machined chuck plate that has been bored and threaded to fit a spindle nose of a No. 34 lathe. The flange of this chuck plate is large enough so that it may be machined to fit the recess in back of chuck, as shown in figure 32.

For the convenience of customers, we supply these semi-machined chuck plates fitted to the spindle nose of any size South Bend Lathe, with flanges large enough to fit any size or style of chuck required. We can also fit chuck complete to lathe if desired.

Size of Lathe	9, 10, 11 in.	12, 13 in.	16, 18 in.
Price Semi-Machined Chuck Plates..	\$1.00	\$1.50	\$2.00
Price Fitting Chucks to Lathes, including S. M. Chuck Plate.....	1.50	2.00	3.00



No. 32

### REAR VIEW OF A LATHE CHUCK

Showing Recess for Chuck Plate

Proper Size of Chuck for Lathe

The table below shows the size of chucks is usually recommended as being most practical for different size South Bend Lathes. This table is for general tions only. Special work may require other sizes.

SIZE OF LATHE	DIAM. OR SIZE OF CHUCK									
	4"	5"	6"	7½"	9"	10"	12"	14"	15"	
11"	B	B	B							
12"		B	B	B						
13"			B	B	B	B				
16"				B	B	B	B	B		
18"					B	B	B	B	B	





### "STANDARD" DRILL CHUCK

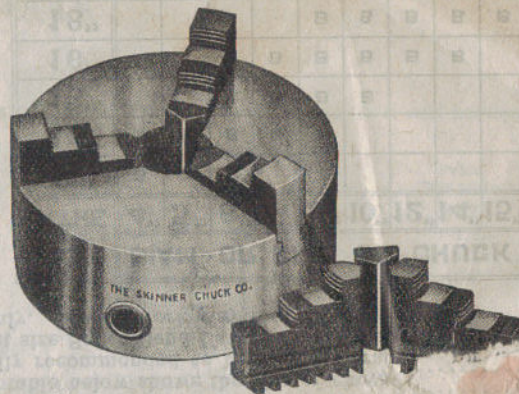
It is very powerful and guaranteed to hold true and not injure the shanks of the drills. It holds round and square work. The jaws and screws are made from cast steel carefully tempered. The hole in the hub is made to fit taper arbor, which will fit both head and tail spindle of lathe. Price includes wrench.

#### Price List

No.	Price Each	Capacity, Inches	Diameter, Inches	Length, Inches
000	\$6.00	0 to $\frac{1}{4}$	1 $\frac{1}{2}$	2
00	6.50	0 to $\frac{3}{8}$	1 $\frac{1}{4}$	2
100	7.00	0 to $\frac{1}{2}$	2 $\frac{1}{8}$	2 $\frac{1}{8}$
101	8.00	0 to $\frac{3}{4}$	2 $\frac{7}{8}$	3 $\frac{3}{8}$
102	10.00	0 to 1	3 $\frac{7}{8}$	4 $\frac{1}{4}$

For fitting Drill Chucks to Lathe, see page 41.

Standard Drill Chucks, 40 per cent. discount.



### UNIVERSAL GEARED SCROLL CHUCK

With Two Sets of Jaws

This style of Chuck is used for holding round pieces. If it is strictly a universal chuck, the jaws being moved simultaneously by the scroll threaded plate. Price includes wrench.

Nominal Size Inches	3 Jaw	4 Jaw
	Price 2 Sets Jaws	Price 2 Sets Jaws
4	\$14.40	\$16.20
5	18.00	20.20
6	21.60	24.30
7 $\frac{1}{2}$	24.00	28.00
9	28.80	32.40
10 $\frac{1}{2}$	32.40	36.40
12	36.00	40.40
15	48.00	53.90

Universal Gear Scroll Chucks, 25 per cent. discount.