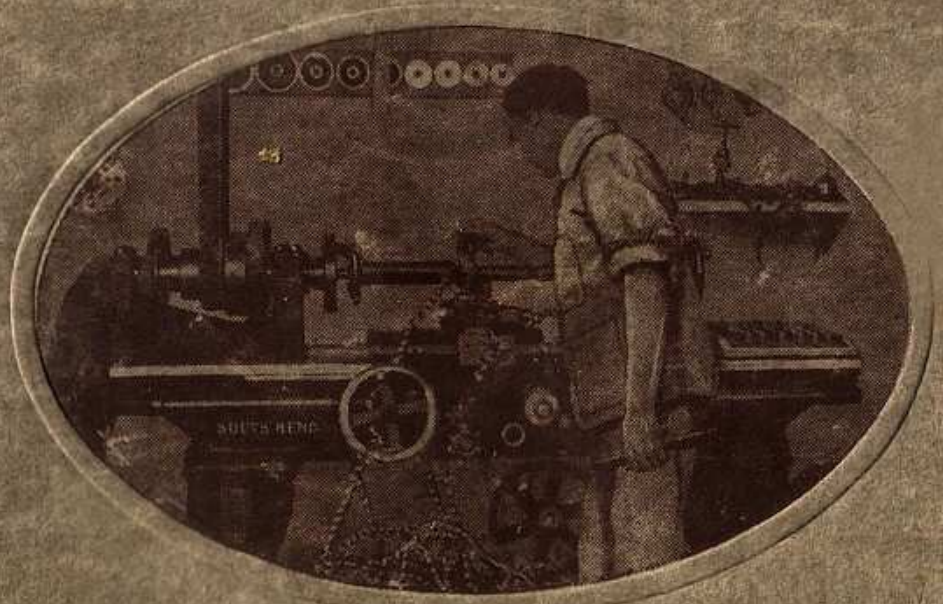
SOUTH BEND LATHES



CATALOG No. 49-1916

SOUTH BEND LATHE WORKS

SOUTH BEND, INDIANA., U.S.A.

BUILT IN THE FOLLOWING 42 SIZES

NUMBER AND SWING OF LATHE	STYLE OF FEED	LENGTH OF BED						
		4 Ft.	5 Ft.	6 Ft.	7 Ft.	8 Ft.	10 Ft.	12 Ft.
No. 28—11"	PLAIN SCREW FEED	11"X 4'	11"X 5'	11"X 6'				
No. 29—11"	AUTOMATIC FEED	11"X 4'	11"X 5'	11"X 6'				
No. 30—12"	PLAIN SCREW FEED		12"X 5'	12"X 6'	12"X 7'	12"X 8'		
No. 32—13"	PLAIN SCREW FEED		13"X 5'	13"X 6'	13"X 7'	13"X 8'		
No. 34—13"	AUTOMATIC FEED		13"X 5'	13"X 6'	13"X 7'	13"X 8'		
No. 35—13"	AUTOMATIC FEED		13"X 5'	13"X 6'	13"X 7'	13"X 8'		
No. 36—14"	AUTOMATIC FEED		14"X 5'	14"X 6'	14"X 7'	14"X 8'	14"X 10'	
No. 37—15"	AUTOMATIC FEED		15"X 5'	15"X 6'	15"X 7'	15"X 8'	15"X 10'	
No. 40—16"	AUTOMATIC FEED			16"X 6'	16"X 7'	16"X 8'	16"X 10'	16"X 12'
No. 44—18"	AUTOMATIC FEED			18"X 6'	18"X 7'	18"X 8'	18"X 10'	18"X 12'

A COMPLETE LINE OF LATHES FOR THE MACHINE SHOP

J. J. O'BRIEN

O'BRIEN BROS.

M. W. O'BRIEN

Telegraph Codes — Western Union, Lieber's
Cable Address — Twins

Catalog No. 49 — 1916

Published June 1, 1915

Illustrating and Describing

SOUTH BEND LATHES

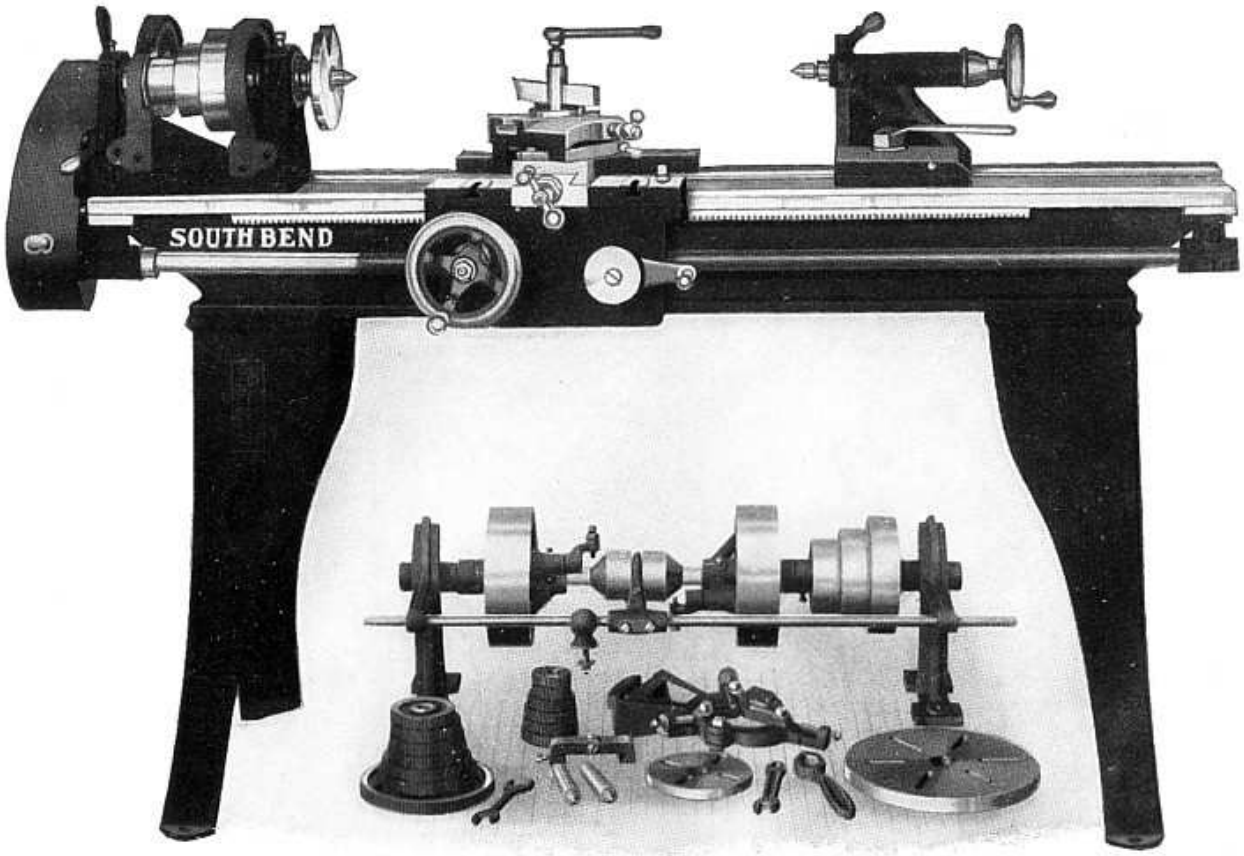
Manufactured only by the

SOUTH BEND LATHE WORKS

(INCORPORATED)

423-425-427 East Madison Street

South Bend, Indiana, U. S. A.



Regular Equipment, as Illustrated Under Lathe, Is Included in Price

SOUTH BEND LATHE No. 28—11-INCH SWING

PLAIN SCREW FEED AND COMPOUND REST

The Nos. 28, 11-inch; 29, 11-inch; 30, 12-inch; 32, 13-inch, and 34, 13-inch lathes may be equipped with Foot Power instead of Countershaft, when desired. Foot Power Attachment illustrated and described on page 40.

No. 28—11-IN. SOUTH BEND SCREW CUTTING ENGINE LATHE

Plain Screw Feed

The No. 28 Lathe is a practical tool, 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 guiding head stock, tail stock, and carriage. (See page 36.) The rack attached is of steel, cut from the solid bar.

Head Stock is equipped with **improved reverse.** (See page 35.) Spindle cone has three steps for 1¼-inch belt. Spindle is of special carbon steel accurately ground; has a ⅝-inch hole its entire length. Bearings are heavy **phosphor bronze,** adjustable for wear. Centers are No. 2 Morse Taper.

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

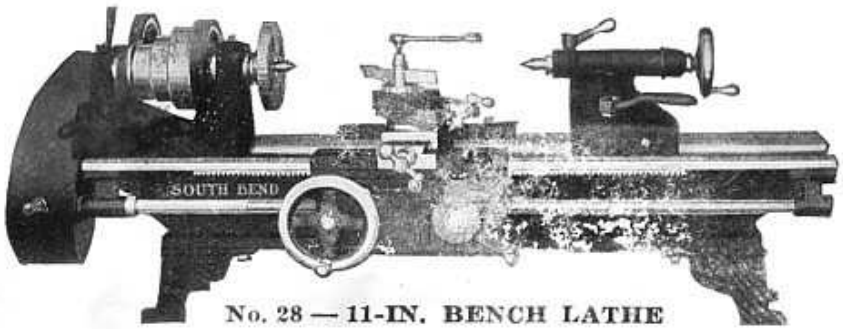
Carriage is strong, with wide deep bridge; has long bearing on the ways and may be locked to bed when using cross feed. The carriage feed is driven by the split nut.

Thread Cutting. The lathe is indexed to cut standard threads from 4 to 40, right or left, including 11½ pipe thread (see page 38).

Graduation. The compound rest is **graduated in degrees.** (See page 37.) The cross feed screw has micrometer graduated collar reading in **one-thousandths** of an inch.

Equipment as shown in cut is included in the price, and consists of large and small face plates, plain or compound rest, two steel centers, center rest, change gears and adjustable stop for screw cutting, gear guards, necessary wrenches, and foot power or double friction countershaft.

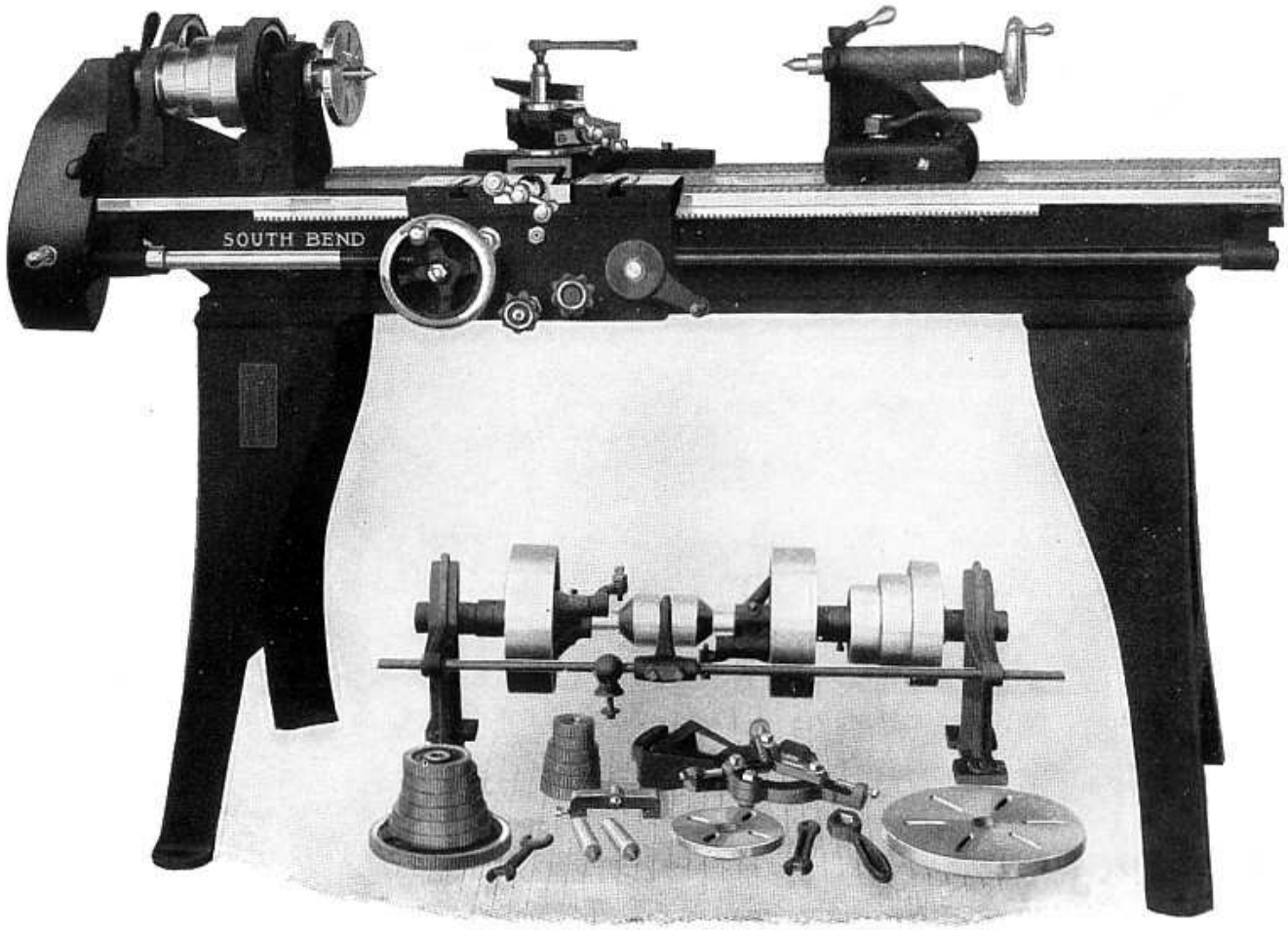
No. of Lathe	Swing Over Bed	Length of Bed	Distance Between Centers	Swing Over Carriage	Hole Through Spindle	Diameter of Spindle Nose	Opening Tool Post Inches	Countershaft Speed	Approx. Weight on Skids	Weight Boxed for Export
28	11¼ in.	4 ft.	24 in.	7⅝ in.	⅝ in.	1½ in.	⅜ x ⅞ in.	225 R. P. M.	575	725
28	11¼ in.	5 ft.	36 in.	7⅝ in.	⅝ in.	1½ in.	⅜ x ⅞ in.	225 R. P. M.	625	775
28	11¼ in.	6 ft.	48 in.	7⅝ in.	⅝ in.	1½ in.	⅜ x ⅞ in.	225 R. P. M.	675	850



No. 28 — 11-IN. BENCH LATHE

The cut shows a No. 28 11-inch South Bend Lathe fitted with short legs so that it may be used on a bench. Some large manufacturers use a quantity of these lathes for light accurate work, one boy usually operating a group of six. The countershaft is always used with the bench lathe.

The 11-inch, 12-inch and 13-inch Lathes may be equipped with bench legs. When bench legs are desired, instead of long legs, deduct $2.00 from the list on any of the above size lathes.



Regular Equipment, as Illustrated Under Lathe, Is Included in Price

No. 29—11-INCH SOUTH BEND SCREW CUTTING ENGINE LATHE

FITTED WITH AUTOMATIC LONGITUDINAL FEED, AUTOMATIC CROSS FEED AND COMPOUND REST

No. 29—11-IN. SOUTH BEND SCREW CUTTING ENGINE LATHE

Fitted with Automatic Longitudinal Feed and Automatic Cross Feed

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 machining 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 guiding the head, tail stock, and carriage. (See page 36.) The rack attached is of steel, one piece, and cut from the solid bar.

Head Stock is equipped with **improved reverse.** (See page 35.) Spindle cone has three steps for 1¼-inch belt, which, with back gears, gives it six changes of spindle speeds. Spindle is of special carbon steel, accurately ground, and has a ⅝-inch hole its entire length. Bearings are heavy **phosphor bronze** boxes adjustable 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 automatic cross feed and automatic **longitudinal** feed, both of 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. (See automatic apron page 35.)

Thread Cutting. Lathe is indexed to cut standard threads from 4 to 40, right or left, including 11½ pipe thread (see page 38), and by compounding the gears furnished many other threads may be cut.

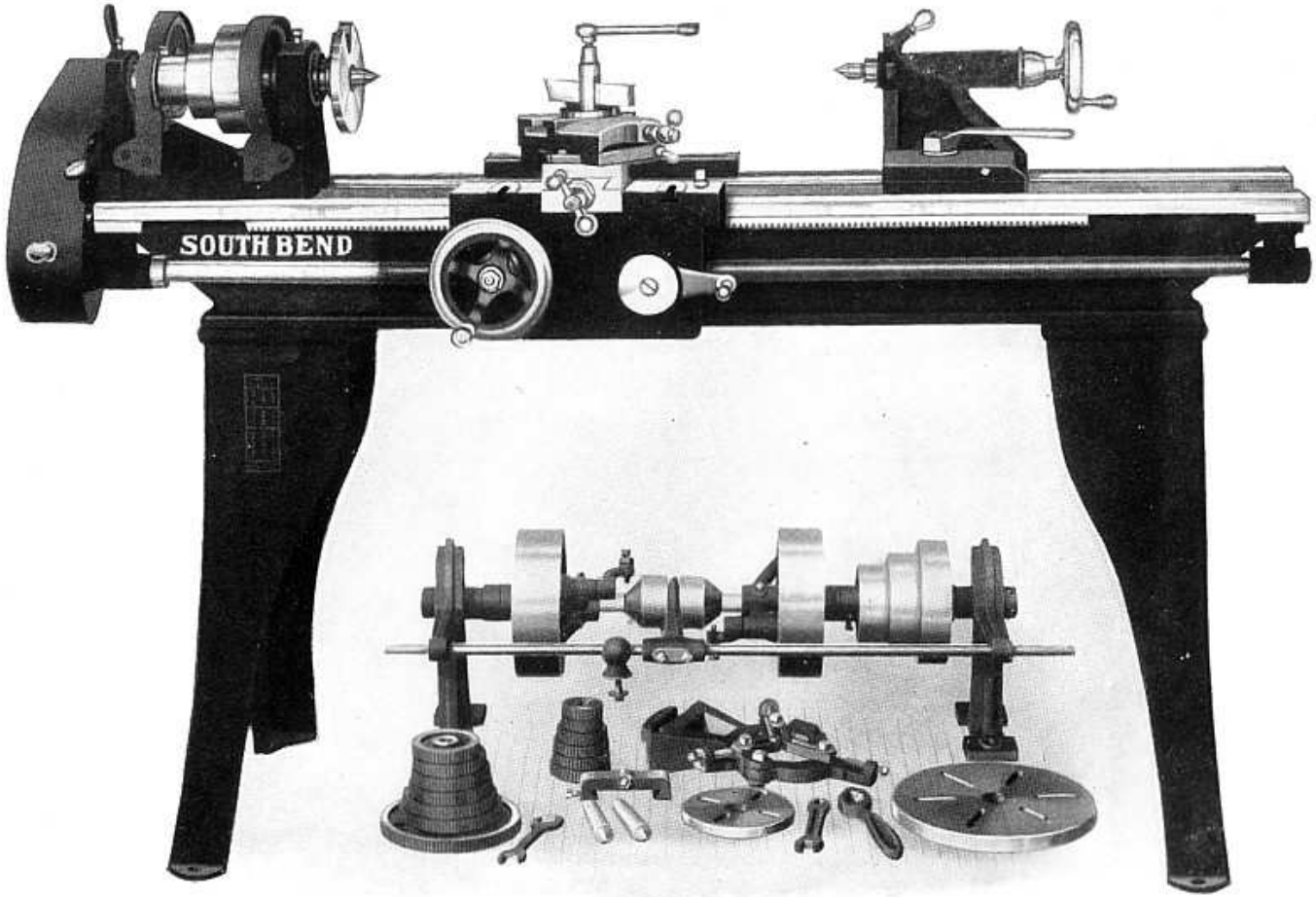
Graduation. The compound rest is **graduated in degrees.** (See page 37.) The cross feed screw has a graduated micrometer collar reading in **one-thousandths** of an inch. (See page 36.)

Equipment shown in cut is included in the price and consists of large and small face plates, plain or compound rest, two steel centers, center rest, change gears, adjustable stop for screw cutting, a set of feed gears, gear guards, necessary wrenches, and foot power or double friction countershaft.

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

No. of Lathe	Swing Over Bed	Length of Bed	Distance Between Centers	Swing Over Carriage	Hole Through Spindle	Diameter of Spindle Nose	Opening Tool Post Inches	Countershaft Speed	Approx. Weight on Skids	Weight Boxed for Export
29	11¼ in.	4 ft.	24 in.	7⅝ in.	⅝ in.	1½ in.	⅜ x ⅞ in.	225 R. P. M.	600	750
29	11¼ in.	5 ft.	36 in.	7⅝ in.	⅝ in.	1½ in.	⅜ x ⅞ in.	225 R. P. M.	650	800
29	11¼ in.	6 ft.	48 in.	7⅝ in.	⅝ in.	1½ in.	⅜ x ⅞ in.	225 R. P. M.	700	875

Extras. The No. 29 Lathe may be supplied at extra cost with — Milling and Key Way Cutting Attachment, Raising Blocks so lathe will turn and bore 14-inch swing, and Taper Attachment. Extras are interchangeable and may be attached after the lathe has left the factory.



Regular Equipment, as Illustrated Under Lathe, Is Included in Price

No. 30—12-INCH SOUTH BEND SCREW CUTTING ENGINE LATHE

PLAIN SCREW FEED AND COMPOUND REST

No. 30, 12-IN. AND No. 32, 13-IN. SOUTH BEND SCREW CUTTING ENGINE LATHES

Plain Screw Feed

The Nos. 30 and 32 Lathes are intended for small job shop. They are 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 guiding head stock, tail stock, and carriage. (See page 36.) The rack attached is of steel, one piece, and cut from the solid bar.

Head Stock is equipped with our **improved reverse.** (See page 35.) Spindle cone has three steps for 1½-inch belt, on the 12-inch lathes, and four steps for 1½-inch belt, on the 13-inch lathes. Spindle is of special carbon steel, accurately ground, has a ⅝-inch hole in the 12-inch and a ¾-inch hole in the 13-inch spindle the entire length. Centers are No. 2 Morse taper in the 12-inch and No. 3 taper in the 13-inch. Bearings are of heavy **phosphor bronze** and are adjustable for wear.

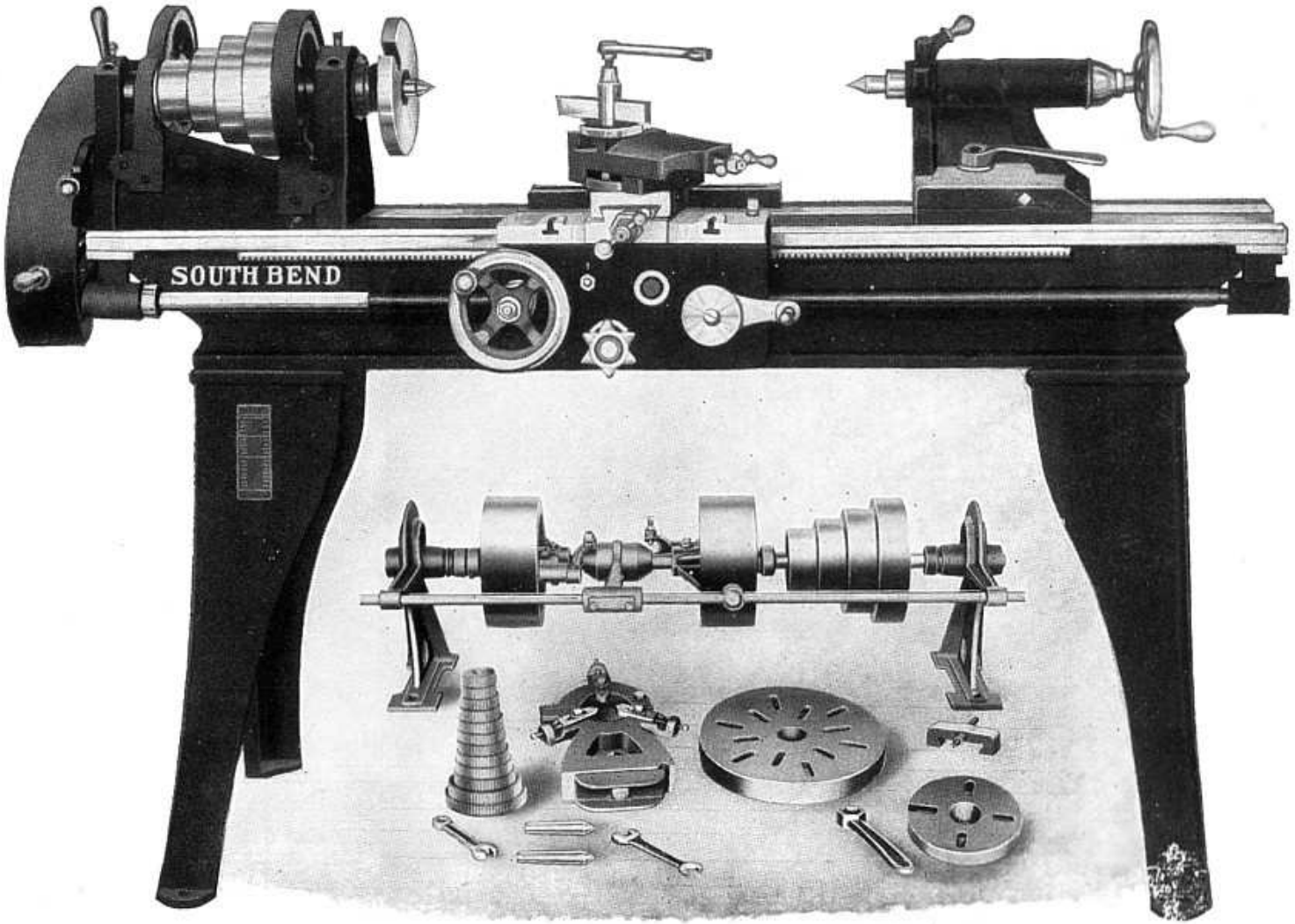
Tail Stock is off-set to allow compound rest to swivel parallel to bed, and is provided with set-over for turning taper. Tail stock center is self-ejecting

Thread Cutting. Lathes are indexed to cut standard threads from 4 to 40, right or left, including 11½ pipe thread (see page 38).

Graduation. The compound rest is **graduated in degrees.** (See page 37.) The cross feed screw has micrometer graduated collar reading in **one-thousandths** of an inch. (See page 36.)

Equipment shown in cut is included in the price and consists of large and small face plates, plain or compound rest, two steel centers, center rest, change gears, adjustable stop for screw cutting, a set of feed gears, gear guards, necessary wrenches, and double friction countershaft.

No. of Lathe	Swing Over Bed	Length of Bed	Distance Between Centers	Swing Over Carriage	Hole Through Spindle	Diameter of Spindle Nose	Opening Tool Post Inches	Countershaft Speed	Approx. Weight on Skids	Weight Boxed for Export
30	12¼ in.	5 ft.	38 in.	8¼ in.	⅝ in.	1½ in.	½ x ⅞ in.	225 R. P. M.	700	850
30	12¼ in.	6 ft.	50 in.	8¼ in.	⅝ in.	1½ in.	½ x ⅞ in.	225 R. P. M.	740	880
30	12¼ in.	7 ft.	62 in.	8¼ in.	⅝ in.	1½ in.	½ x ⅞ in.	225 R. P. M.	780	900
30	12¼ in.	8 ft.	74 in.	8¼ in.	⅝ in.	1½ in.	½ x ⅞ in.	225 R. P. M.	840	950
32	13¼ in.	5 ft.	33 in.	9 in.	¾ in.	1¾ in.	½ x 1⅛ in.	225 R. P. M.	900	950
32	13¼ in.	6 ft.	45 in.	9 in.	¾ in.	1¾ in.	½ x 1⅛ in.	225 R. P. M.	950	1000
32	13¼ in.	7 ft.	57 in.	9 in.	¾ in.	1¾ in.	½ x 1⅛ in.	225 R. P. M.	1000	1050
32	13¼ in.	8 ft.	69 in.	9 in.	¾ in.	1¾ in.	½ x 1⅛ in.	225 R. P. M.	1040	1125



Regular Equipment, as Illustrated Under Lathe, Is Included in Price

No. 34—13-INCH SOUTH BEND SCREW CUTTING ENGINE LATHE

FITTED WITH AUTOMATIC LONGITUDINAL FEED, AUTOMATIC CROSS FEED AND COMPOUND REST

No. 34—13-INCH SOUTH BEND SCREW CUTTING ENGINE LATHE

Fitted with Automatic Longitudinal Feed and Automatic Cross Feed

Our No. 34 Lathe is an excellent tool for the machine shop, as it has a number of practical features that enable the operator 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. (See page 36.) The rack attached is of steel, cut from the solid bar.

Head Stock is equipped with **improved reverse.** (See page 35.) Spindle cone has four steps for 1½-inch belt. Spindle is of special spindle steel accurately ground; has ¾-inch hole its entire length. Centers are 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 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 automatic cross feed and automatic longitudinal feed 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.** (See automatic apron page 35.)

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 can be cut. (See page 38.)

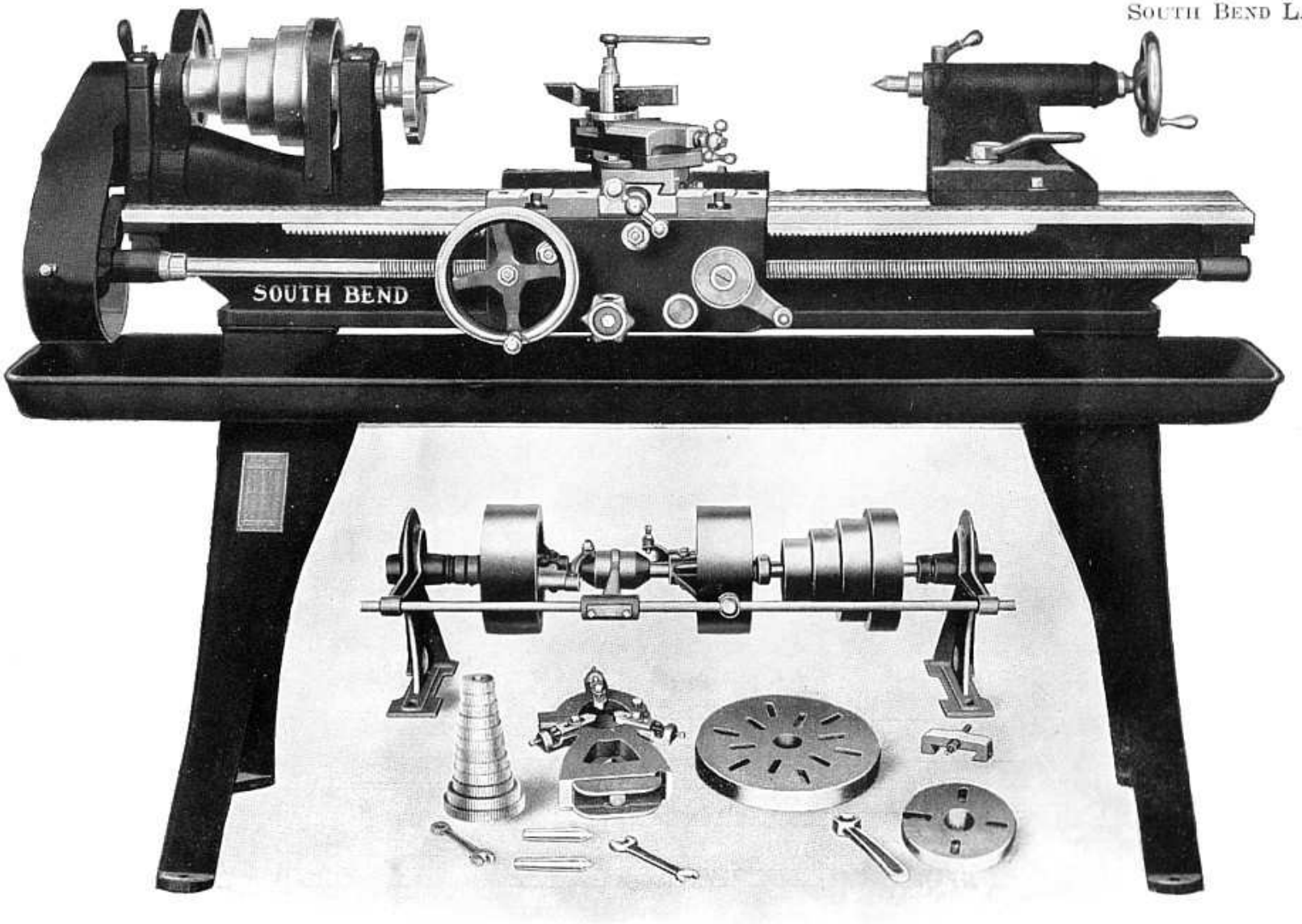
Graduation. The compound rest is **graduated in degrees.** (See page 37.) The cross feed screw has micrometer graduated collar reading in **one-thousandths** of an inch. (See page 36.)

Equipment as shown in cut is included in the price and consists of large and small face plates, plain or compound rest, two steel centers, center rest, change gears, adjustable stop for screw cutting, a set of feed gears, gear guards, necessary wrenches and double friction countershaft.

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

No. of Lathe	Swing Over Bed	Length of Bed	Distance Between Centers	Swing Over Carriage	Hole Through Spindle	Diameter of Spindle Nose	Opening Tool Post Inches	Countershaft Speed	Approx. Weight on Skids	Weight Boxed for Export
34	13¼ in.	5 ft.	33 in.	9 in.	¾ in.	1¾ in.	½ x 1⅛ in.	225 R. P. M.	925	1050
34	13¼ in.	6 ft.	45 in.	9 in.	¾ in.	1¾ in.	½ x 1⅛ in.	225 R. P. M.	975	1100
34	13¼ in.	7 ft.	57 in.	9 in.	¾ in.	1¾ in.	½ x 1⅛ in.	225 R. P. M.	1050	1175
34	13¼ in.	8 ft.	69 in.	9 in.	¾ in.	1¾ in.	½ x 1⅛ in.	225 R. P. M.	1100	1250

Extras. The No. 34 Lathe may be supplied at extra cost with — Milling and Key Way Cutting Attachment, Raising Blocks so lathe will turn and bore 18-inch swing, and Taper Attachment. Extras are interchangeable and may be attached after lathe has left the factory.



Regular Equipment, as Illustrated Under Lathe, Is Included in Price

No. 35—13-INCH TOOL ROOM LATHE

WITH AUTOMATIC LONGITUDINAL FEED, AUTOMATIC CROSS FEED, AND OIL PAN

No. 35—13 IN. TOOL ROOM LATHE

Fitted with Automatic Longitudinal Feed and Automatic Cross Feed. Equipped with Compound Rest 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 guiding head and tail stock, and carriage. (See page 36.) The rack attached is of steel, cut from the solid bar.

Head Stock is equipped with **improved reverse.** (See page 35.) Cone has four steps for 1½-inch belt. Spindle is of special spindle steel accurately ground; has ¾-inch hole its entire length. Centers are No. 3 Morse Taper. Bearings are of 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 is strong with wide deep bridge; has T slots for clamping work for **milling** and boring. Both automatic cross feed and automatic longitudinal feed 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.** (See automatic apron page 35.)

Thread Cutting. The lathe is indexed to cut standard threads from 4 to 40, right or left, including 11½ pipe thread (see page 38), and by compounding the gears furnished many other threads can be cut.

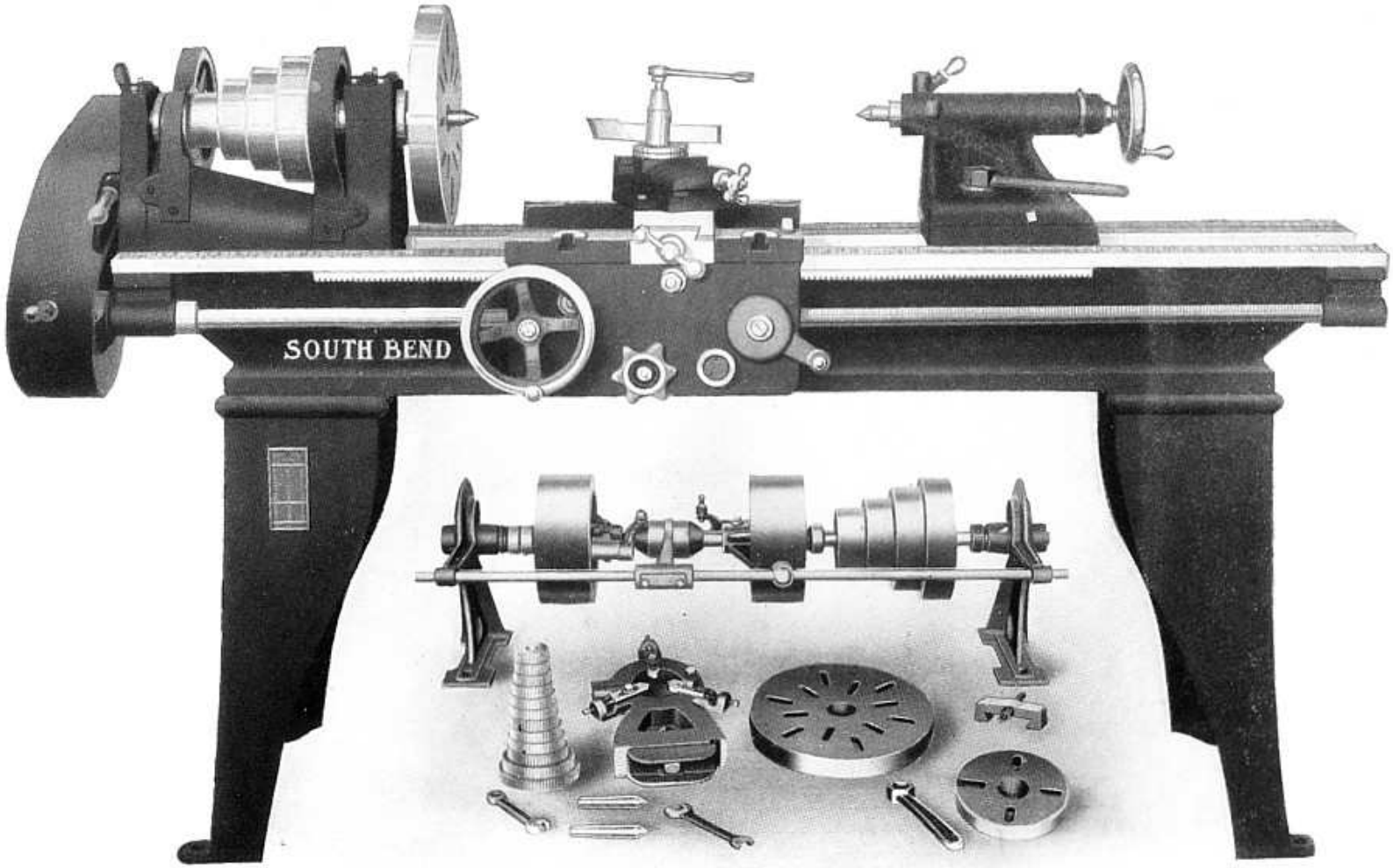
Graduation. The compound rest is **graduated in degrees.** (See page 37.) The cross feed screw has micrometer graduated collar reading in **one-thousandths** of an inch. (See page 36.)

Equipment as shown in cut is included in the price and consists of large and small face plates, compound rest, two steel centers, center rest, change gears, adjustable stop for screw cutting, a set of feed gears, necessary wrenches, gear guards, oil pan, and double friction countershaft.

Oil Pan, and regular equipment, as illustrated under lathe, are included in price of No. 35 Lathe.

No. of Lathe	Swing Over Bed	Length of Bed	Distance Between Centers	Swing Over Carriage	Hole Through Spindle	Diameter of Spindle Nose	Opening Tool Post Inches	Countershaft Speed	Approx. Weight on Skids	Weight Boxed for Export
35	13¼ in.	5 ft.	33 in.	9 in.	¾ in.	1¾ in.	½ x 1⅛ in.	225 R. P. M.	1000	1150
35	13¼ in.	6 ft.	45 in.	9 in.	¾ in.	1¾ in.	½ x 1⅛ in.	225 R. P. M.	1075	1225
35	13¼ in.	7 ft.	57 in.	9 in.	¾ in.	1¾ in.	½ x 1⅛ in.	225 R. P. M.	1170	1320
35	13¼ in.	8 ft.	69 in.	9 in.	¾ in.	1¾ in.	½ x 1⅛ in.	225 R. P. M.	1300	1475

Extras. The No. 35 Lathe may be supplied with Milling and Key-Way Cutting Attachment and Taper Attachment. Oil pan is included in the price of the No. 35 Lathe only. **For prices on oil pan for other size lathes, see price list.**



Regular Equipment, as Illustrated Under Lathe, Is Included in Price

No. 36—14-INCH SOUTH BEND SCREW CUTTING ENGINE LATHE

FITTED WITH AUTOMATIC LONGITUDINAL FEED, AUTOMATIC CROSS FEED AND COMPOUND REST

No. 36—14-IN. SOUTH BEND SCREW CUTTING ENGINE LATHE

Fitted with Automatic Longitudinal Feed and Automatic Cross Feed

Our No. 36 Lathe is surpassed by none for manufacturing and for the machine and general repair 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 guiding the head stock, tail stock, and carriage. (See page 36.) The rack attached is of steel, cut from the solid bar.

Head Stock is equipped with **improved reverse.** (See page 35.) Spindle cone has four steps for 1¾-inch belt. Spindle is of special carbon steel accurately ground; has $1\frac{1}{32}$-inch hole its entire length. Centers are No. 3 Morse Taper. Bearings are of heavy **phosphor bronze** with ample oiling facilities 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 deep bridge; has T slots for clamping work for **milling** and boring. Both automatic cross feed and automatic longitudinal feed 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.** (See automatic apron page 35.)

Thread Cutting. The lathe is indexed to cut standard threads from 4 to 40, right or left, including 11½ pipe thread. (See page 38.)

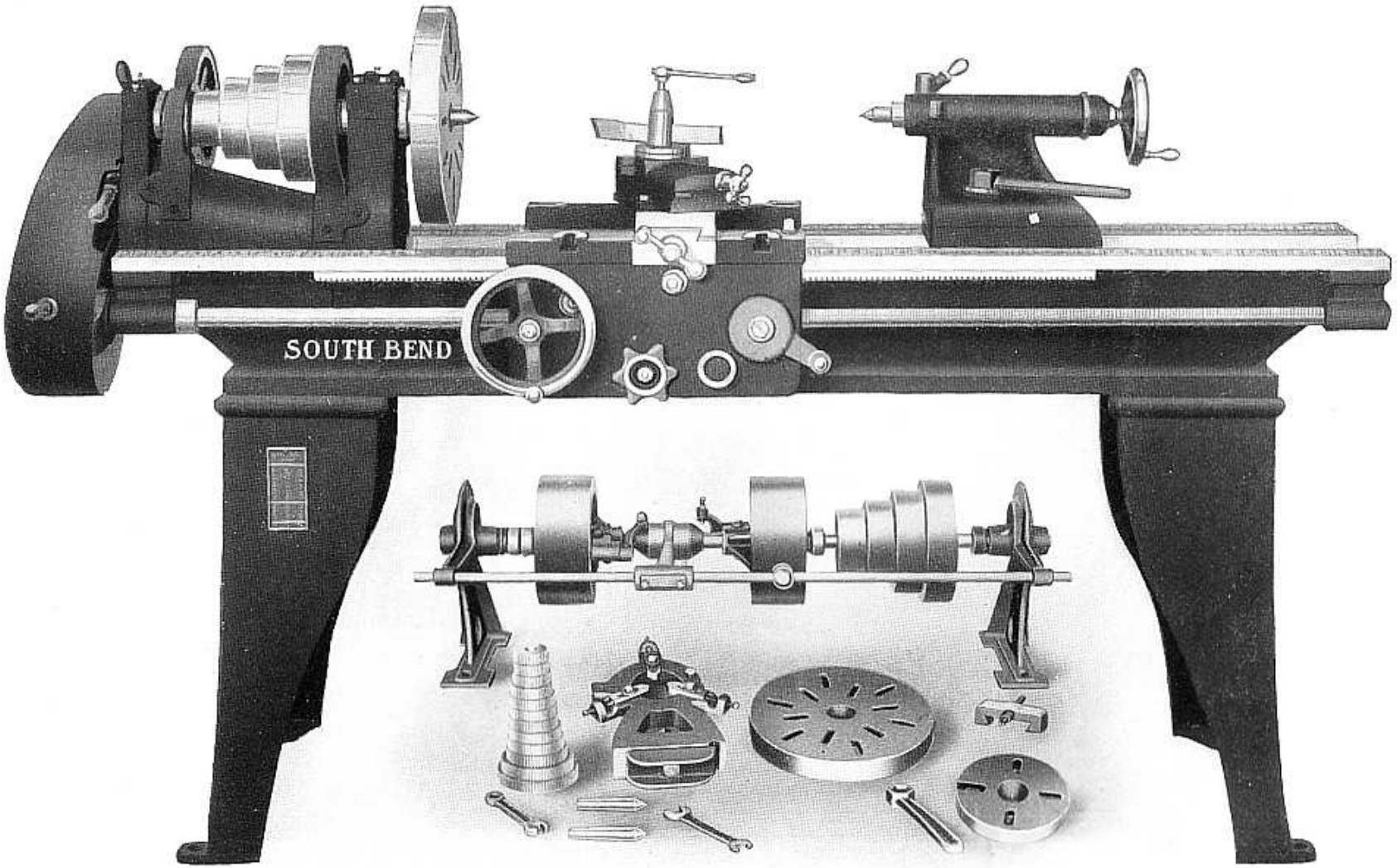
Graduation. The compound rest is **graduated in degrees.** (See page 37.) The cross feed screw has micrometer graduated collar reading in **one-thousandths** of an inch. (See page 36.)

Equipment as shown in cut is included in the price and consists of large and small face plates, plain or compound rest, two steel centers, center rest, change gears, adjustable stop for screw cutting, a set of feed gears, gear guards, necessary wrenches, and double friction countershaft.

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

No. of Lathe	Swing Over Bed	Length of Bed	Distance Between Centers	Swing Over Carriage	Hole Through Spindle	Diameter of Spindle Nose	Opening Tool Post Inches	Countershaft Speed	Approx. Weight on Skids	Weight Boxed for Export
36	14¼ in.	5 ft.	30 in.	9⅞ in.	$1\frac{1}{32}$ in.	2 in.	½ x 1⅛ in.	200 R. P. M.	1100	1225
36	14¼ in.	6 ft.	42 in.	9⅞ in.	$1\frac{1}{32}$ in.	2 in.	½ x 1⅛ in.	200 R. P. M.	1175	1300
36	14¼ in.	7 ft.	54 in.	9⅞ in.	$1\frac{1}{32}$ in.	2 in.	½ x 1⅛ in.	200 R. P. M.	1250	1400
36	14¼ in.	8 ft.	66 in.	9⅞ in.	$1\frac{1}{32}$ in.	2 in.	½ x 1⅛ in.	200 R. P. M.	1325	1475
36	14¼ in.	10 ft.	90 in.	9⅞ in.	$1\frac{1}{32}$ in.	2 in.	½ x 1⅛ in.	200 R. P. M.	1450	1600

Extras. The No. 36 Lathe may be supplied at extra cost with — Milling and Key Way Cutting Attachment, Raising Blocks so lathe will turn and bore 19-inch swing, and Taper Attachment. Extras are interchangeable and may be attached after lathe has left the factory.



Regular Equipment, as Illustrated Under Lathe, Is Included in Price

No. 37—15-INCH SOUTH BEND SCREW CUTTING ENGINE LATHE

FITTED WITH AUTOMATIC LONGITUDINAL FEED, AUTOMATIC CROSS FEED AND COMPOUND REST

No. 37—15-IN. SOUTH BEND SCREW CUTTING ENGINE LATHE

Fitted with Automatic Longitudinal Feed and Automatic Cross Feed

Our No. 37 Lathe is surpassed by none for manufacturing and for the machine and general repair 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 guiding the head stock, tail stock, and carriage. (See page 36.) The rack attached is of steel, cut from the solid bar.

Head Stock is equipped with **improved reverse.** (See page 35.) Spindle cone has four steps for 1¾-inch belt. Spindle is of special carbon steel accurately ground; has 1⅛-inch hole its entire length. Centers are No. 3 Morse Taper. Bearings are of heavy **phosphor bronze** with ample oiling facilities 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 deep bridge; has T slots for clamping work for **milling** and boring. Both automatic cross feed and automatic longitudinal feed 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.** (See automatic apron page 35.)

Thread Cutting. The lathe is indexed to cut standard threads from 4 to 40, right or left, including 11½ pipe thread. (See page 38.)

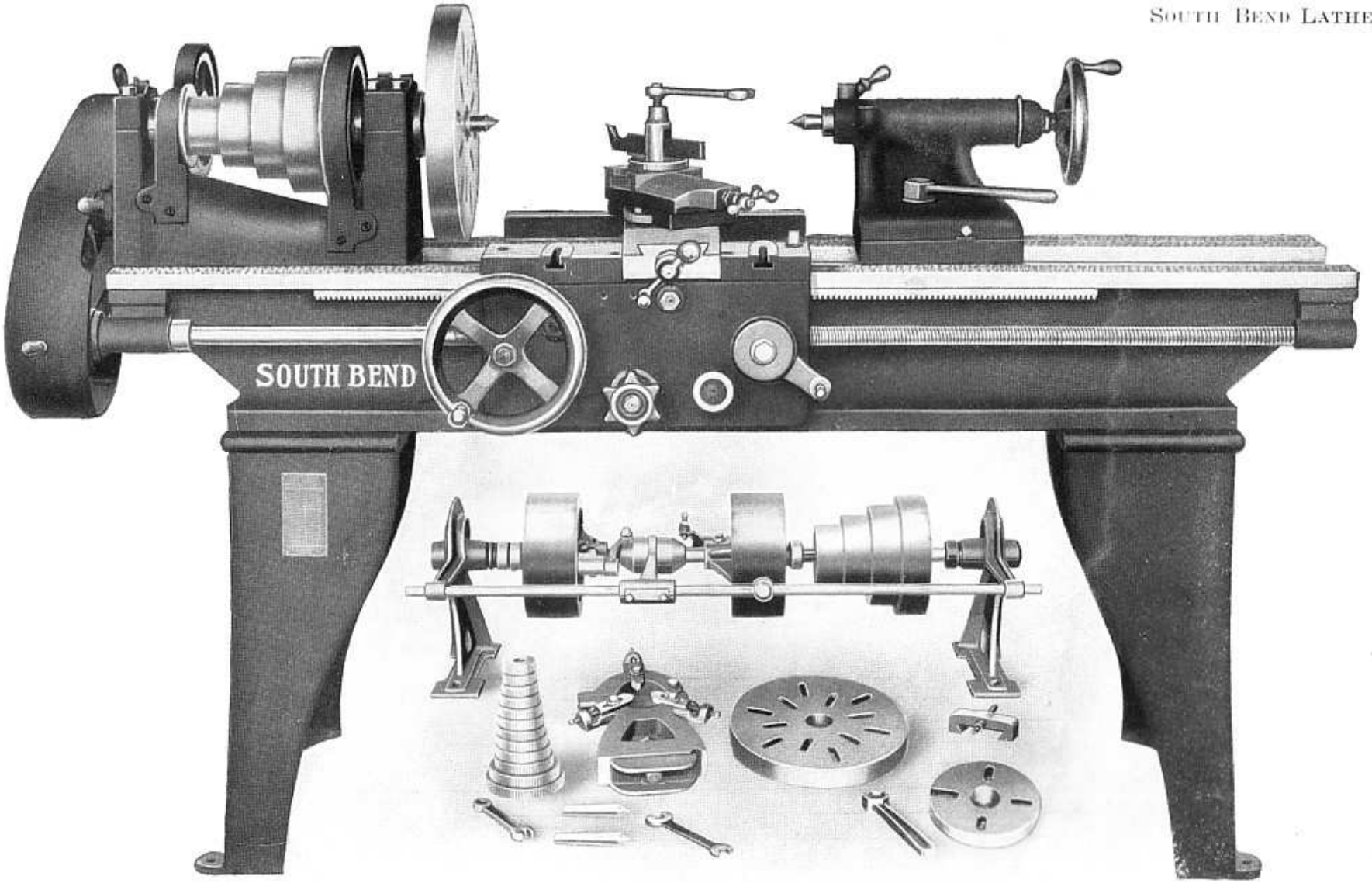
Graduation. The compound rest is **graduated in degrees.** (See page 37.) The cross feed screw has micrometer graduated collar reading in **one-thousandths** of an inch. (See page 36.)

Equipment as shown in cut is included in the price and consists of large and small face plates, plain or compound rest, two steel centers, center rest, change gears, adjustable stop for screw cutting, a set of feed gears, gear guards, necessary wrenches, and double friction countershaft.

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

No. of Lathe	Swing Over Bed	Length of Bed	Distance Between Centers	Swing Over Carriage	Hole Through Spindle	Diameter of Spindle Nose	Opening Tool Post Inches	Countershaft Speed	Approx. Weight on Skids	Weight Boxed for Export
37	15¼ in.	5 ft.	28 in.	10⅝ in.	1⅛ in.	2¼ in.	$\frac{9}{16}$ x 1¼ in.	200 R. P. M.	1275	1375
37	15¼ in.	6 ft.	40 in.	10⅝ in.	1⅛ in.	2¼ in.	$\frac{9}{16}$ x 1¼ in.	200 R. P. M.	1350	1450
37	15¼ in.	7 ft.	52 in.	10⅝ in.	1⅛ in.	2¼ in.	$\frac{9}{16}$ x 1¼ in.	200 R. P. M.	1425	1500
37	15¼ in.	8 ft.	64 in.	10⅝ in.	1⅛ in.	2¼ in.	$\frac{9}{16}$ x 1¼ in.	200 R. P. M.	1500	1550
37	15¼ in.	10 ft.	88 in.	10⅝ in.	1⅛ in.	2¼ in.	$\frac{9}{16}$ x 1¼ in.	200 R. P. M.	1650	1750

Extras. The No. 37 Lathe may be supplied at extra cost with — Milling and Key Way Cutting Attachment, Raising Blocks so lathe will turn and bore 20-inch swing, and Taper Attachment. Extras are interchangeable and may be attached after lathe has left the factory.



Regular Equipment, as Illustrated Under Lathe, Is Included in Price

No. 40—16-INCH SOUTH BEND SCREW CUTTING ENGINE LATHE

FITTED WITH AUTOMATIC LONGITUDINAL FEED, AUTOMATIC CROSS FEED AND COMPOUND REST

No. 40—16-IN. SOUTH BEND SCREW CUTTING ENGINE LATHE (Heavy Duty)

Fitted with Automatic Longitudinal Feed and Automatic Cross Feed

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 guiding the head stock, tail stock, and carriage. (See page 36.) The rack is of steel, cut from the solid bar.

Head Stock is equipped with **improved reverse.** (See page 35.) Spindle 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 5/16-inch hole its entire length. Centers are No. 3 Morse Taper. Bearings are heavy **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 automatic cross feed and automatic longitudinal feed, both of which 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.** (See automatic apron page 35.)

Thread Cutting. Lathe is indexed to cut standard threads from 4 to 40, right or left, including 11½ pipe thread. (See page 38.)

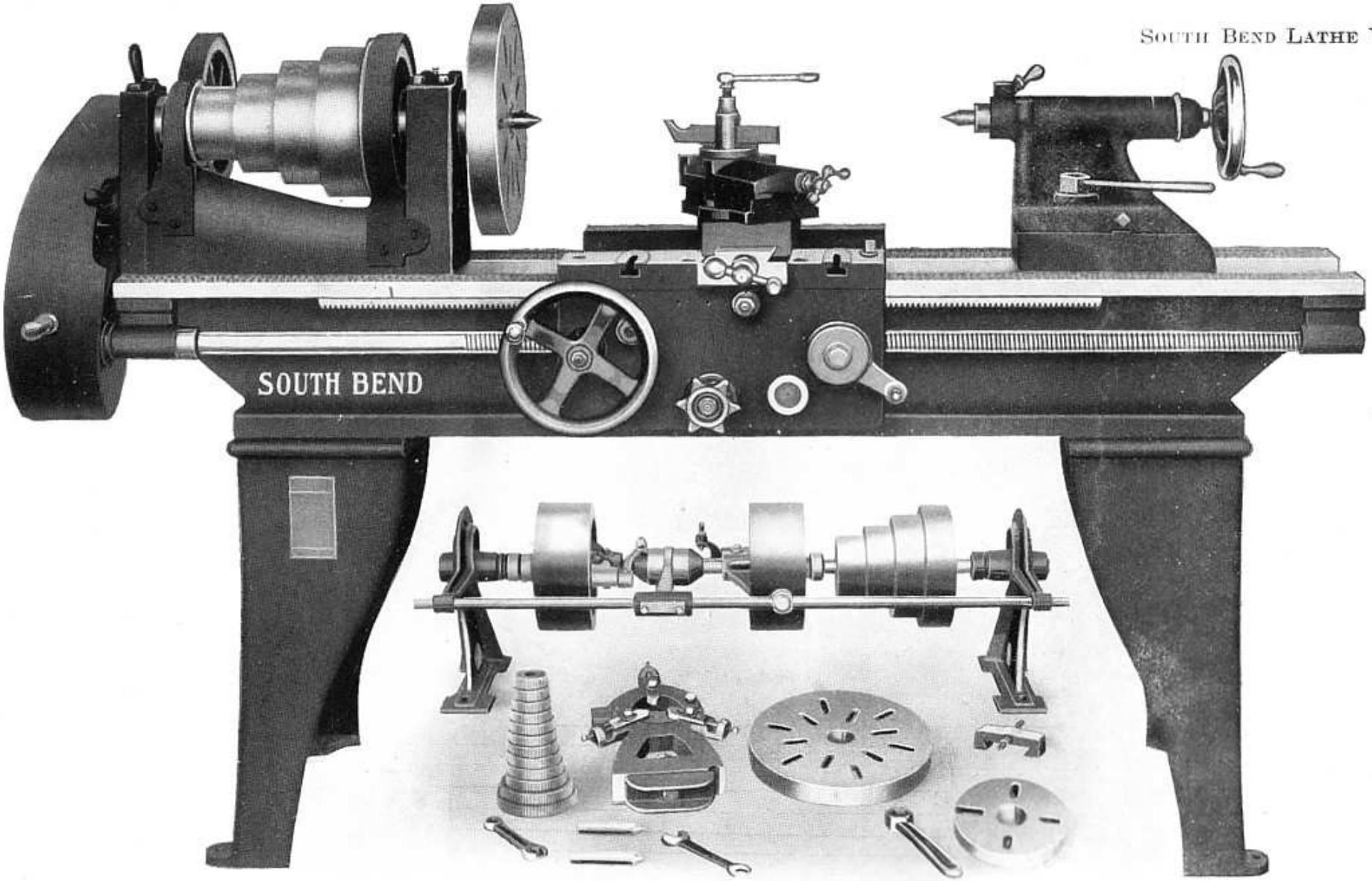
Graduation. The compound rest is **graduated in degrees.** (See page 37.) The cross feed screw has graduated micrometer collar reading in **one-thousandths** of an inch. (See page 36.)

Equipment as shown in cut is included in the price and consists of large and small face plates, plain or compound rest, two steel centers, center rest, change gears, adjustable stop for screw cutting, a set of feed gears, gear guards, necessary wrenches, and double friction countershaft.

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

No. of Lathe	Swing Over Bed	Length of Bed	Distance Between Centers	Swing Over Carriage	Hole Through Spindle	Diameter of Spindle Nose	Taper in Spindle Morse	Opening Tool Post Inches	Countershaft Speed	Approx. Weight on Skids	Weight Boxed for Export
40	16¼ in.	6 ft.	36 in.	11⅛ in.	1 5/16 in.	2⅜ x 8 in.	No. 3	⅝ x 1⅜ in.	180 R. P. M.	1600	1750
40	16¼ in.	7 ft.	48 in.	11⅛ in.	1 5/16 in.	2⅜ x 8 in.	No. 3	⅝ x 1⅜ in.	180 R. P. M.	1700	1875
40	16¼ in.	8 ft.	60 in.	11⅛ in.	1 5/16 in.	2⅜ x 8 in.	No. 3	⅝ x 1⅜ in.	180 R. P. M.	1800	2000
40	16¼ in.	10 ft.	84 in.	11⅛ in.	1 5/16 in.	2⅜ x 8 in.	No. 3	⅝ x 1⅜ in.	180 R. P. M.	1950	2175
40	16¼ in.	12 ft.	108 in.	11⅛ in.	1 5/16 in.	2⅜ x 8 in.	No. 3	⅝ x 1⅜ in.	180 R. P. M.	2300	2450

Extras. The No. 40 Lathe may be supplied at extra cost with — Milling and Key Way Cutting Attachment, Raising Blocks so lathe will turn and bore 22-inch swing, and Taper Attachment. Extras are interchangeable and may be attached after lathe has left the factory.



Regular Equipment, as Illustrated Under Lathe, Is Included in Price

No. 44—18-INCH SOUTH BEND SCREW CUTTING ENGINE LATHE

FITTED WITH AUTOMATIC LONGITUDINAL FEED, AUTOMATIC CROSS FEED AND COMPOUND REST

No. 44—18-IN. SOUTH BEND SCREW CUTTING ENGINE LATHE

Fitted with Automatic Longitudinal Feed and Automatic Cross Feed

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 around 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 guiding the head stock, tail stock, and carriage. (See page 36.) The rack is of steel, cut from the solid bar.

Head Stock is equipped with **improved reverse.** (See page 35.) Spindle cone has four steps for a 2½-inch belt, which, with back gears, gives eight changes of spindle speeds. Spindle is of special carbon steel accurately ground; has a $1\frac{5}{16}$-inch hole its entire length. Centers conform to No. 3 Morse taper. Bearings are of heavy **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 automatic 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.** (See automatic apron page 35.)

Thread Cutting. Lathe is indexed to cut standard threads from 4 to 40, right or left, including 11½ pipe thread. (See page 38.)

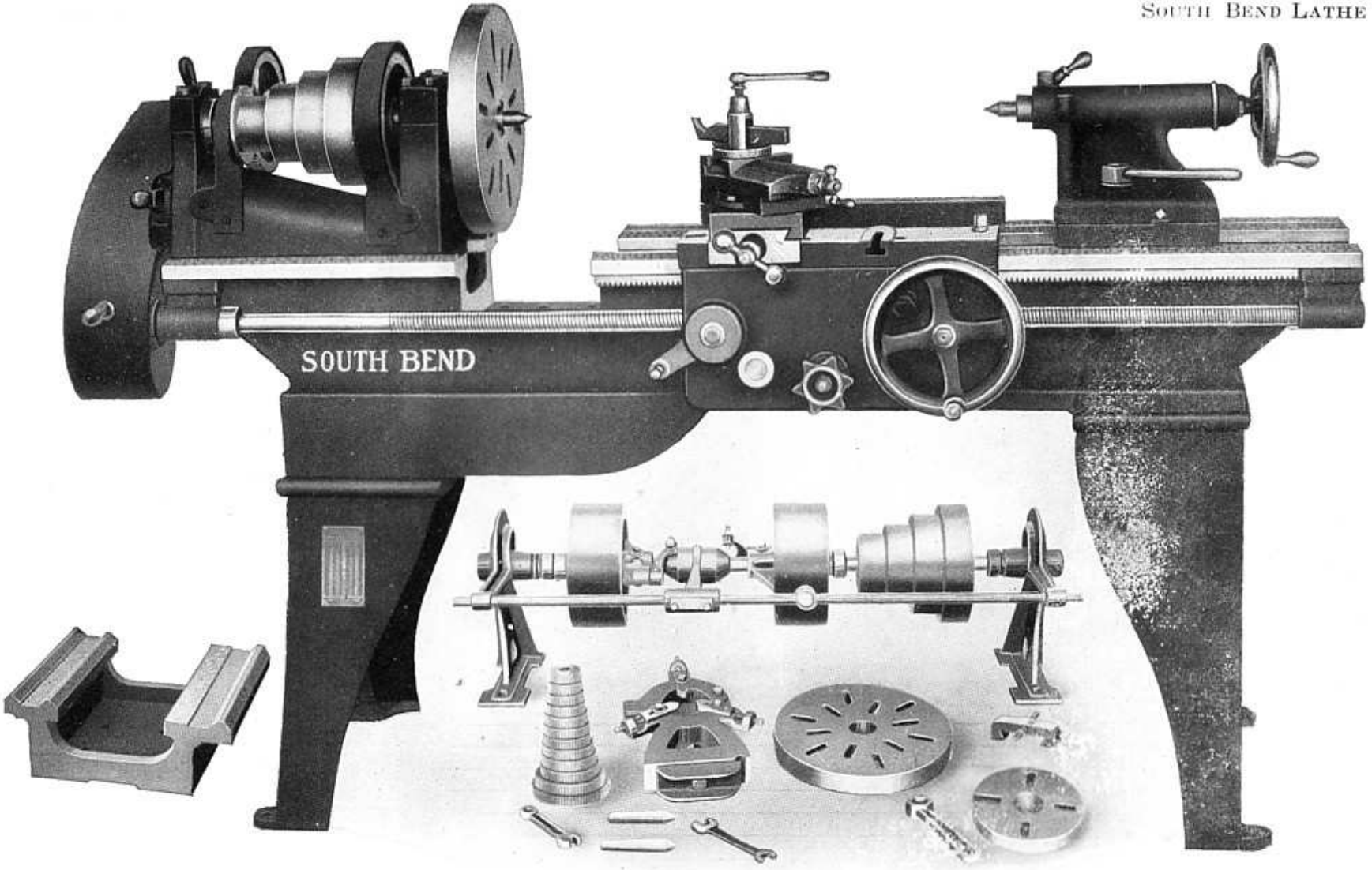
Graduation. The compound rest is **graduated in degrees.** (See page 37.) The cross feed screw has a graduated micrometer collar reading in **one-thousandths** of an inch.

Equipment as shown in cut is included in the price and consists of large and small face plates, plain or compound rest, two steel centers, center rest, change gears, adjustable stop for screw cutting, a set of feed gears, gear guards, necessary wrenches, and double friction countershaft.

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

No. of Lathe	Swing Over Bed	Length of Bed	Distance Between Centers	Swing Over Carriage	Hole Through Spindle	Diameter of Spindle Nose	Taper in Spindle Morse	Opening Tool Post Inches	Countershaft Speed	Approx. Weight on Skids	Weight Boxed for Export
44	18¼ in.	6 ft.	33 in.	13⅛ in.	$1\frac{5}{16}$ in.	2⅜ x 8 in.	No. 3	⅝ x 1⅜ in.	180 R. P. M.	1700	2000
44	18¼ in.	7 ft.	45 in.	13⅛ in.	$1\frac{5}{16}$ in.	2⅜ x 8 in.	No. 3	⅝ x 1⅜ in.	180 R. P. M.	1825	2100
44	18¼ in.	8 ft.	57 in.	13⅛ in.	$1\frac{5}{16}$ in.	2⅜ x 8 in.	No. 3	⅝ x 1⅜ in.	180 R. P. M.	1950	2250
44	18¼ in.	10 ft.	81 in.	13⅛ in.	$1\frac{5}{16}$ in.	2⅜ x 8 in.	No. 3	⅝ x 1⅜ in.	180 R. P. M.	2200	2450
44	18¼ in.	12 ft.	105 in.	13⅛ in.	$1\frac{5}{16}$ in.	2⅜ x 8 in.	No. 3	⅝ x 1⅜ in.	180 R. P. M.	2450	2800

Extras. The No. 44 Lathe may be supplied at extra cost with — Milling and Key Way Cutting Attachment, Raising Blocks so lathe will turn and bore 24-inch swing, and Taper Attachment. Extras are interchangeable and may be attached after lathe has left the factory.



Regular Equipment, as Illustrated Under Lathe, Is Included in Price

SOUTH BEND GAP LATHE, 16-INCH SWING, 24 INCHES OVER GAP, 6-FOOT BED

FITTED WITH AUTOMATIC LONGITUDINAL FEED, AUTOMATIC CROSS FEED AND COMPOUND REST

SOUTH BEND LATHES WITH GAP BED

Gap Lathes Are Furnished only, Equipped with Compound Rest and Bridge

The Practical Lathe for all around work in the machine and repair shop, adapted to handling work of both small and large diameter.

Sizes. We build the **11-inch, 12-inch, 13-inch, 14-inch, 15-inch, 16-inch** and **18-inch** South Bend Lathes with gap bed when desired. For description and dimension of gap bed lathes see that of straight bed lathes, as the only difference between straight bed lathes and gap bed lathes is the bridge, and gap construction of bed, which requires more strength.

Illustration shows our 16-24-inch No. 40 Lathe fitted with compound rest, gap bed and bridge. 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.

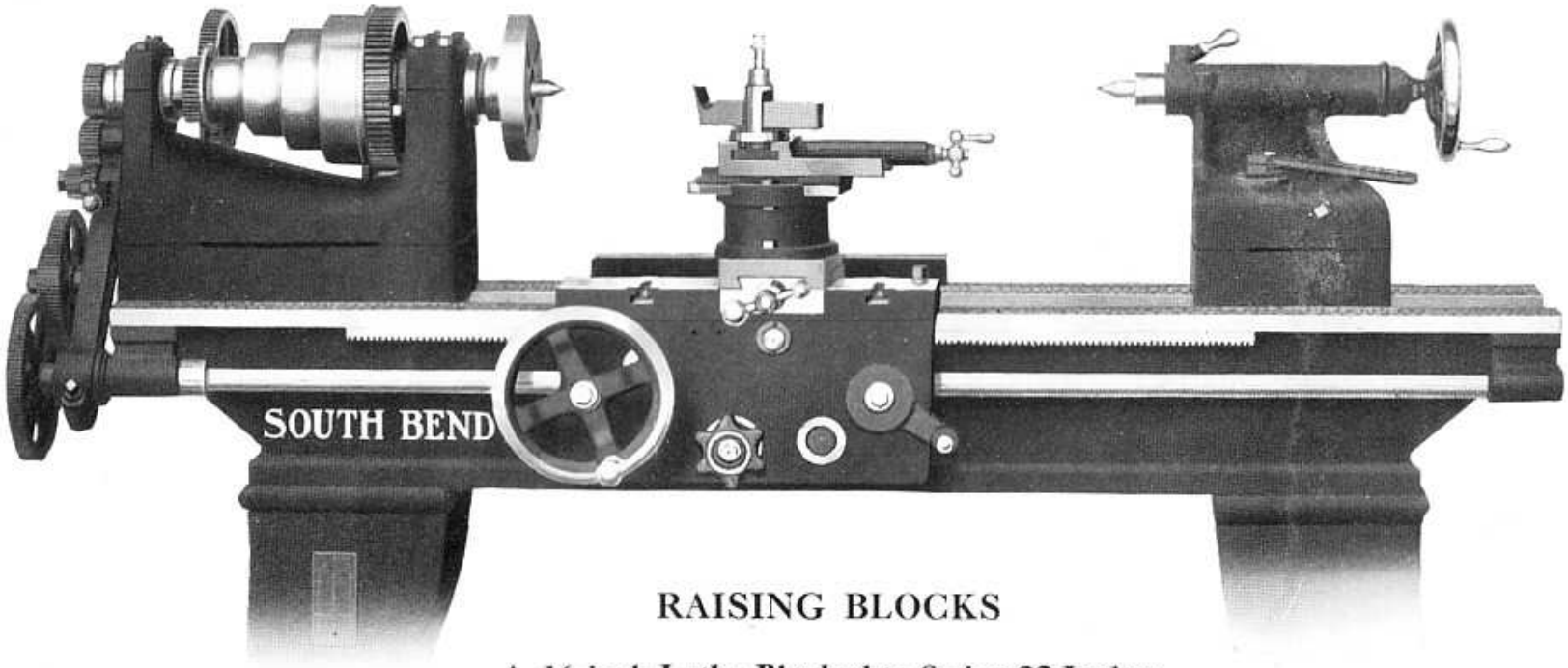
Equipment as shown in cut is included in the price of lathe and consists of large and small face plates, graduated compound rest, two steel centers, center rest, change gears and adjustable stop for screw cutting, a set of feed gears, gear guards, necessary wrenches, double friction countershaft, and bridge.

PRICE OF GAP AND BRIDGE IS EXTRA OVER STRAIGHT BED LATHE

No. of Gap Lathe	Swing over Bed	Swing over Gap	Width of Gap	Lengths of Beds	Extra Weight of Gap Beds	Price Extra for Gap and Bridge
128	11¼ in.	15 in.	5 in.	4, 5, 6 ft.	50 lbs.	$17.00
129	11½ in.	15 in.	5 in.	4, 5, 6 ft.	50 lbs.	17.00
130	12¼ in.	17 in.	6 in.	5, 6, 7, 8 ft.	75 lbs.	18.00
132	13½ in.	19 in.	7 in.	5, 6, 7, 8 ft.	100 lbs.	22.00
134	13¾ in.	19 in.	7 in.	5, 6, 7, 8 ft.	100 lbs.	22.00
136	14½ in.	20½ in.	7½ in.	5, 6, 7, 8, 10 ft.	115 lbs.	24.00
137	15¾ in.	22 in.	8 in.	5, 6, 7, 8, 10 ft.	125 lbs.	26.00
140	16¼ in.	24 in.	8⅜ in.	6, 7, 8, 10, 12 ft.	140 lbs.	30.00
144	18¼ in.	26 in.	10 in.	6, 7, 8, 10, 12 ft.	170 lbs.	40.00

Extras. The gap bed lathe may be supplied at extra cost with — Milling and Key-Way Cutting Attachment, Raising Blocks, and Taper Attachment. Extras are interchangeable and may be attached after lathe has left the factory.

When ordering Lathe with gap bed, add figure (1) to the number of straight bed lathe or the word "Gap" to the code word.



RAISING BLOCKS

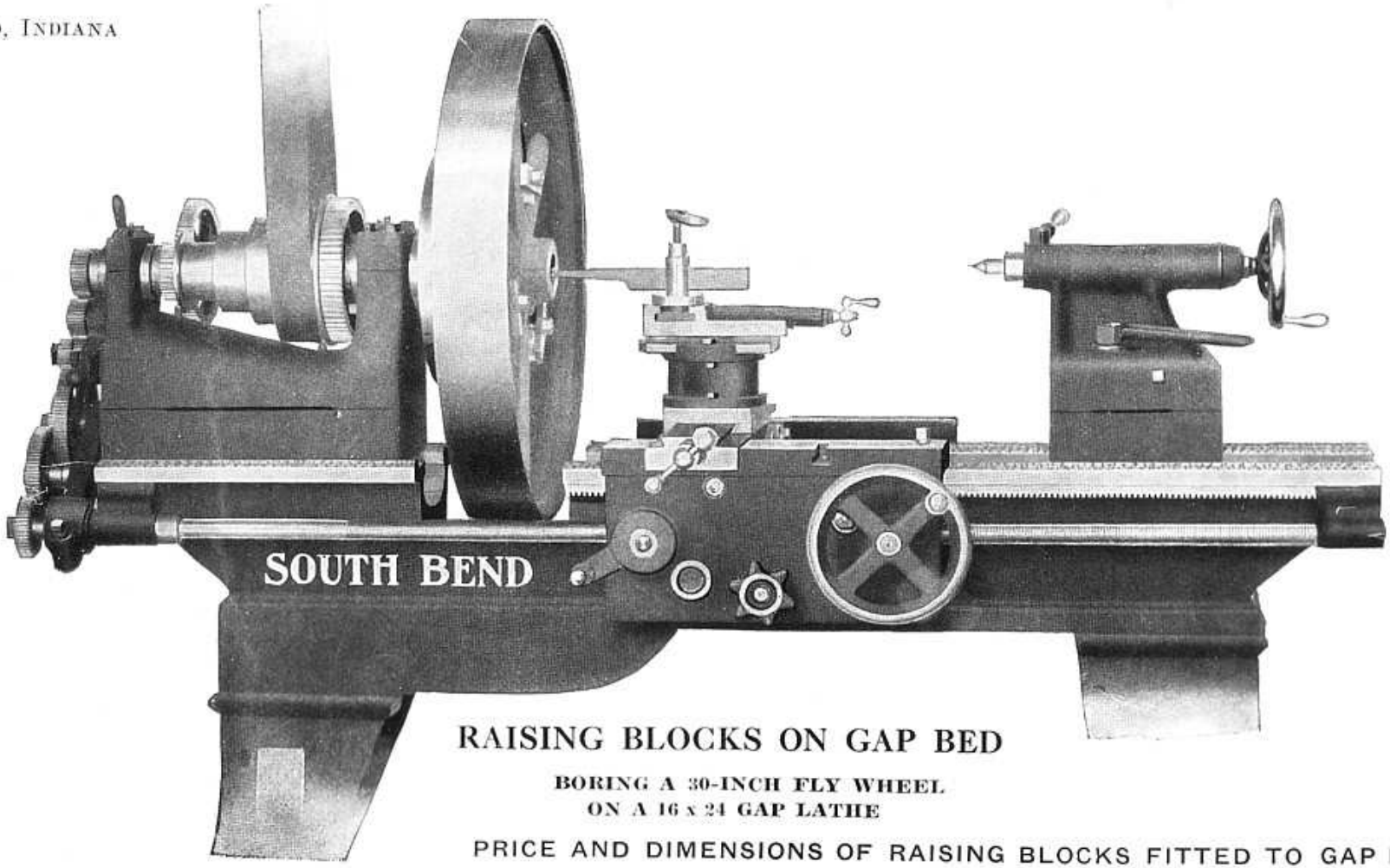
A 16-inch Lathe Blocked to Swing 22 Inches

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, and 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:

			Code
11″ Lathe	Blocks to swing 14″ for turning and boring	$13.00	Lime
12″ Lathe	Blocks to swing 15″ for turning and boring	15.00	Loam
13″ Lathe	Blocks to swing 18″ for turning and boring	15.00	Lumy
14″ Lathe	Blocks to swing 19″ for turning and boring	16.00	Lurdon
15″ Lathe	Blocks to swing 20″ for turning and boring	17.00	Lurten
16″ Lathe	Blocks to swing 22″ for turning and boring	20.00	Lusty
18″ Lathe	Blocks to swing 24″ for turning and boring	25.00	Lynch



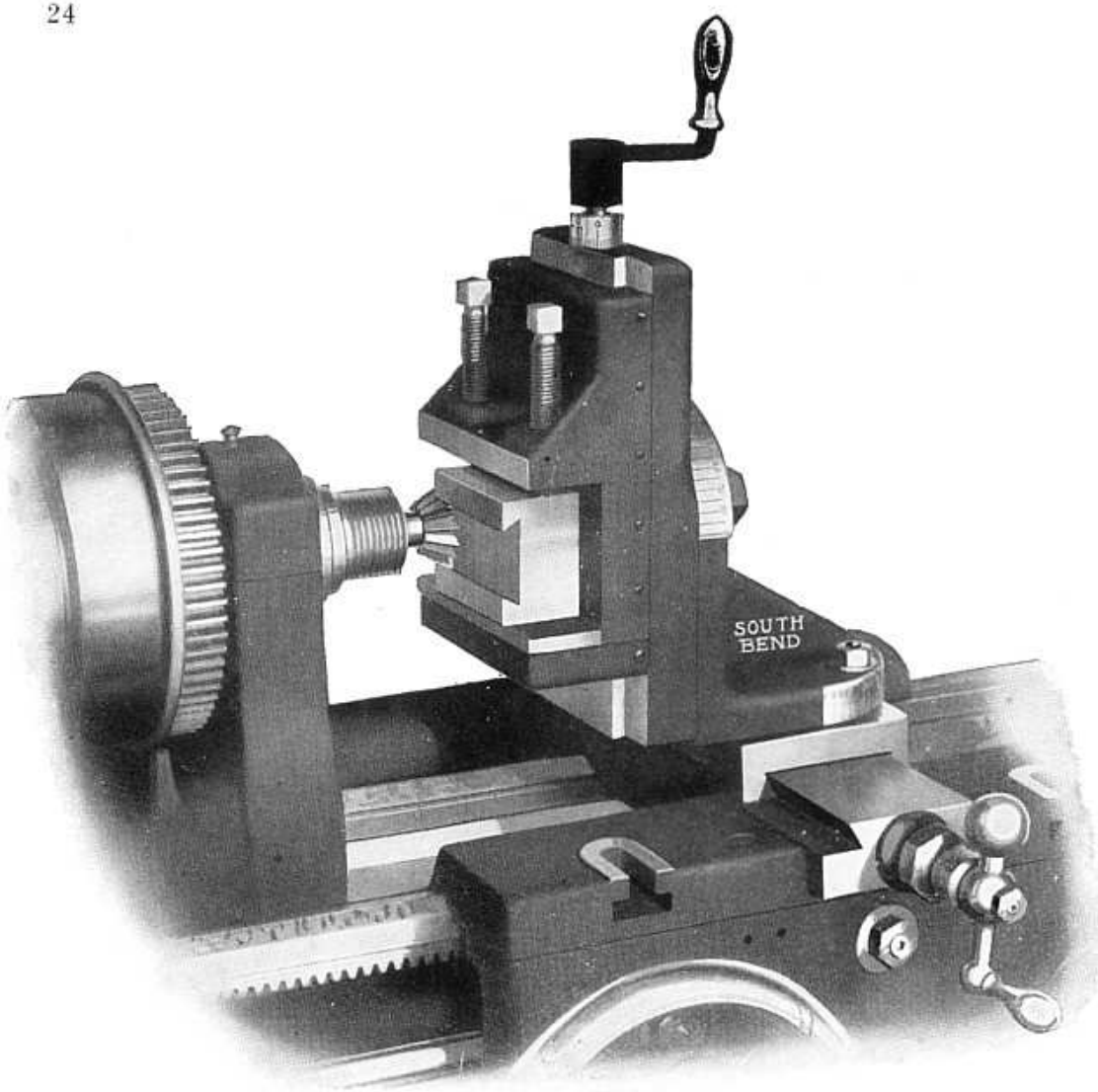
RAISING BLOCKS ON GAP BED

BORING A 30-INCH FLY WHEEL ON A 16 x 24 GAP LATHE

PRICE AND DIMENSIONS OF RAISING BLOCKS FITTED TO GAP LATHES

No. 130	12-inch Lathe swings over gap 17 inches.	Blocks to swing over gap 20 inches	$15.00
No. 132	13-inch Lathe swings over gap 19 inches.	Blocks to swing over gap 24 inches	15.00
No. 134	13-inch Lathe swings over gap 19 inches.	Blocks to swing over gap 24 inches	15.00
No. 136	14-inch Lathe swings over gap 20½ inches.	Blocks to swing over gap 25½ inches	16.00
No. 137	15-inch Lathe swings over gap 22 inches.	Blocks to swing over gap 27 inches	17.00
No. 140	16-inch Lathe swings over gap 24 inches.	Blocks to swing over gap 30 inches	20.00
No. 144	18-inch Lathe swings over gap 26 inches.	Blocks to swing over gap 32 inches	25.00

Raising Blocks for Gap and Straight Bed Lathes are the same.



South Bend Milling and Key-Way Cutting Attachment No. 4

Fitted to a No. 37 — 15" South Bend Lathe. This attachment 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 MILLING AND KEY-WAY CUTTING ATTACHMENT FOR LATHES

The illustration shows our improved Milling and Key-Way Cutting Attachment fitted to the carriage of a 15-inch South Bend Lathe. The four illustrations shown are of the No. 4 attachment, same size on four different jobs.

The depth of the cut is controlled by the feed of the carriage, the length by the cross feed screw, and the graduated screw at the top takes care of the vertical motion. The attachment swivels all the way around like the compound rest, and is graduated in degrees. In addition it swivels on the upright angle plate 180 degrees, and is graduated. There is a graduated collar on the vertical screw reading in one-thousandths of an inch.

This attachment is designed for South Bend Lathes, but it can also be fitted, by a mechanic, to lathes of other makes that are equipped with compound rest.

The regular equipment consists of Milling Attachment, two steel V blocks, one crank handle, one double end wrench, and two bolts and nuts for attaching.

Arbors or cutters are not included in the price of the attachment, but are extra.

Size of Attachment.....	No. 1	No. 3	No. 4	No. 5
Size Lathe used on	11"	12", 13"	14", 15"	16", 18"
Vertical Feed	3"	5"	6"	7"
Cross Feed.....	4"	6"	7"	8"
Vise will hold	1½"	2¾"	3½"	4"
Depth of Jaws.....	1"	1⅝"	1¾"	2"
Width of Base.....	3½"	5"	5½"	6"
Width of Jaws.....	3½"	5"	5½"	6"
Weight.....	25 lbs.	40 lbs.	50 lbs.	65 lbs.
Price.....	$30.00	$35.00	$37.50	$40.00
Code	Vale	Victor	Visit	Volt

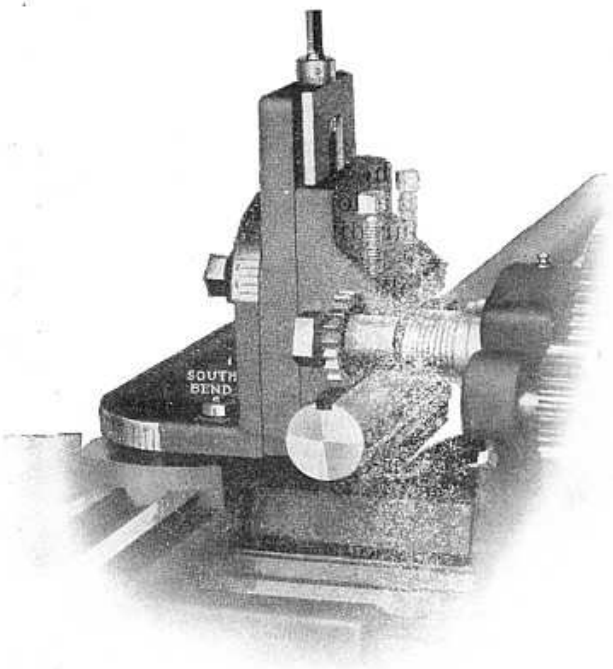


Fig. B — Milling a Key-Way on the Lathe

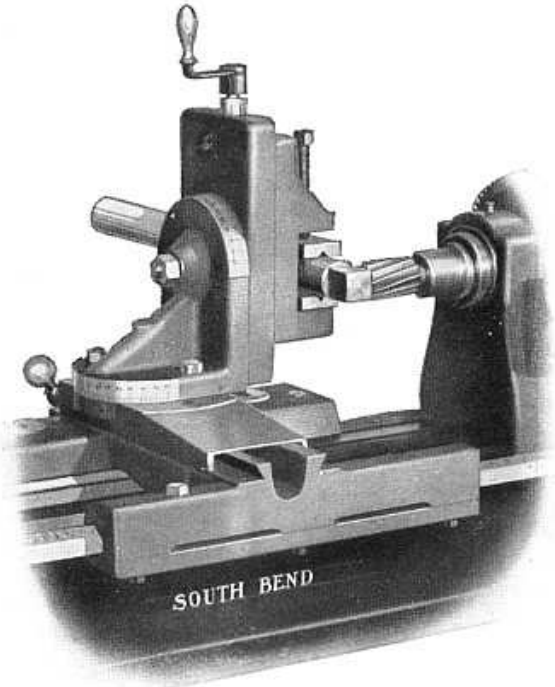


Fig. C — Squaring a Steel Shaft on Lathe

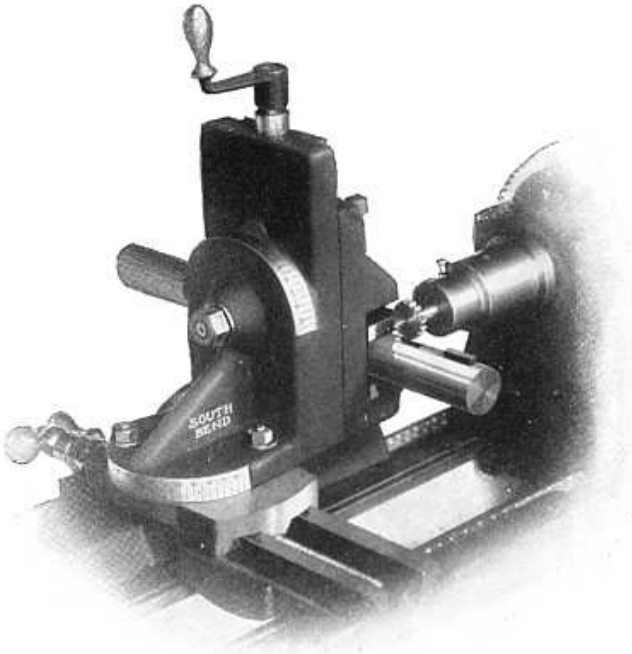


Fig. D — Milling a Key-Way (Woodruff System)

SOUTH BEND MILLING AND KEY-WAY CUTTING ATTACHMENT FOR LATHES

No. 4 Attachment on a No. 37 — 15" South Bend Lathe.

Illustration Fig. B is taken from the back of lathe showing a ⅜-inch key-way being milled in a 2-inch shaft. When shafts are taper where the key-way is to be milled, simply swivel the vertical to the desired angle.

The Arbor and Cutter shown above are further illustrated and described on page 26.

Illustration Fig. C shows a No. 4 attachment fitted to a lathe squaring a 1½-inch steel shaft. A spiral end mill is fitted into the taper of the spindle. The shaft is fed horizontally across the face of the end mill to the desired depth. Then by using the vertical feed you can get a clear sharp corner.

An end mill cutting in the above manner does not need near as much power as if it were cutting on the face, and it makes a much cleaner job.

On a No. 37 — 15" South Bend Lathe.

Illustration Fig. D shows the Milling Attachment holding a shaft which is being key-seated for the Woodruff system of keying. The cutter is held in a special B Drilling Chuck, which screws on the nose of lathe spindle. (See page 41.)

The Woodruff Key-way Cutter is illustrated on page 26.

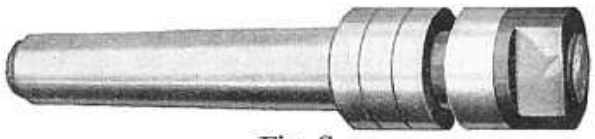


Fig. G

MILLING ARBOR FOR LATHE

The cut shows arbor used in the lathe for holding cutters. See cut Fig. B, page 25. These arbors are made in three sizes, ¾-inch, ⅞-inch and 1-inch in diameter, capacity between shoulder and nut 1⅜-inch. The 1-inch arbor is the most practical, as most cutters have a 1-inch hole.

In ordering specify both the diameter of arbor and the taper of shank. The price of the arbor is not included in the price of milling attachment, but is extra as shown.

Price of arbor, any size.....$4.50

Woodruff System Milling Cutter

The above illustration shows a Key Seat Cutter for Woodruff system of keying. In ordering a key seat cutter of this kind, give the diameter and the width of face of the cutter. Prices of any size cutter on application.

FACE MILLING CUTTERS

Width of Face Inches	Diam. of Hole Inches	Diameter Inches	Price Each
3/16	1	2½	$1.30
¼	1	2½	1.40
5/16	1	2½	1.50
⅜	1	2½	1.60
7/16	1	2½	1.70
½	1	2½	1.80
⅝	1	2½	2.00
¾	1	2½	2.20
⅞	1	2½	2.40
1	1	2½	2.60

The milling cutters illustrated above are used with Milling and Key-way Cutting Attachment on a variety of jobs, for example:

In cutting a key-way ½ inch wide a ¼-inch cutter may be used by taking two chips for the width of the key-way, or, a ½-inch cutter may be used taking the full width in one chip.

These cutters are not included in the price of the Milling and Key-way Attachment, but are extra as listed above. Prices on other standard cutters on application.

A PRACTICAL MILLING EQUIPMENT

A practical equipment for the South Bend Milling and Key-way Cutting Attachment is illustrated herewith. These parts are not included in the price of the Milling Attachment, but are extra as shown, viz:

1 1-inch Arbor (between shoulder and nut 1⅜ inch).....$4.50
1 ⅛-inch Metal Slitting Saw 4-inch diameter..... 1.20
1 ¼-inch Face Milling Cutter (for key-seating)..... 1.40
1 1-inch Spiral End Mill (for squaring end of shaft)..... 2.30

Milling Equipment total.....$9.40

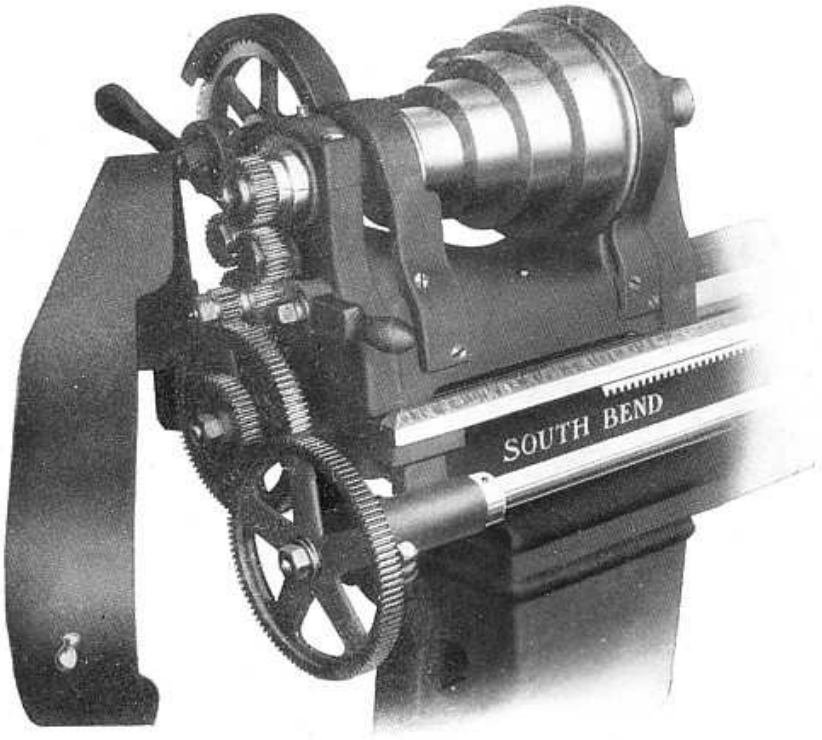
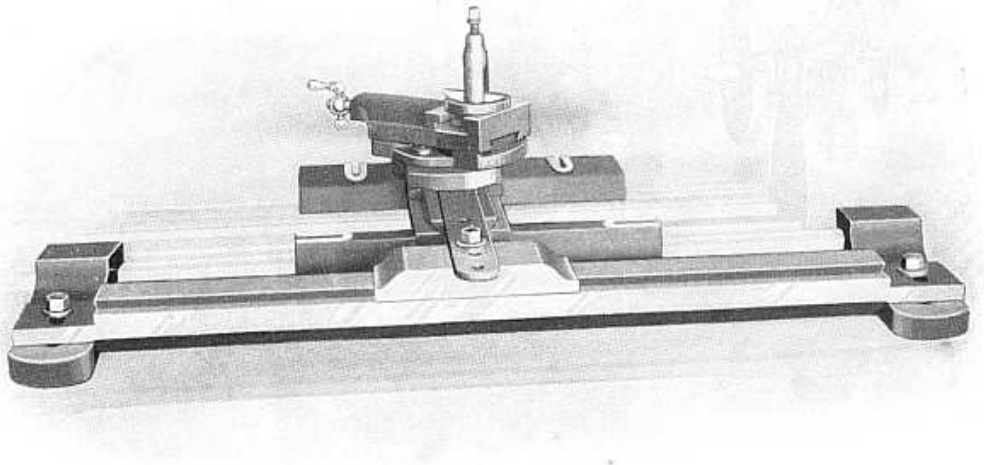


Fig. 1 — Hinged Guard Partly Open

GEAR GUARDS

The above cut shows the head of the South Bend Lathe with gear guards attached. All South Bend Lathes are now equipped with gear guards. The price of the guards have been added to the price of lathe, so that in the price sheet accompanying this catalog, the prices shown include gear guards.

The fixed guards cover the back gears. The hinge guards cover the reverse and change gears on the end of the lathe. They are made of cast iron and when closed completely cover all gears.



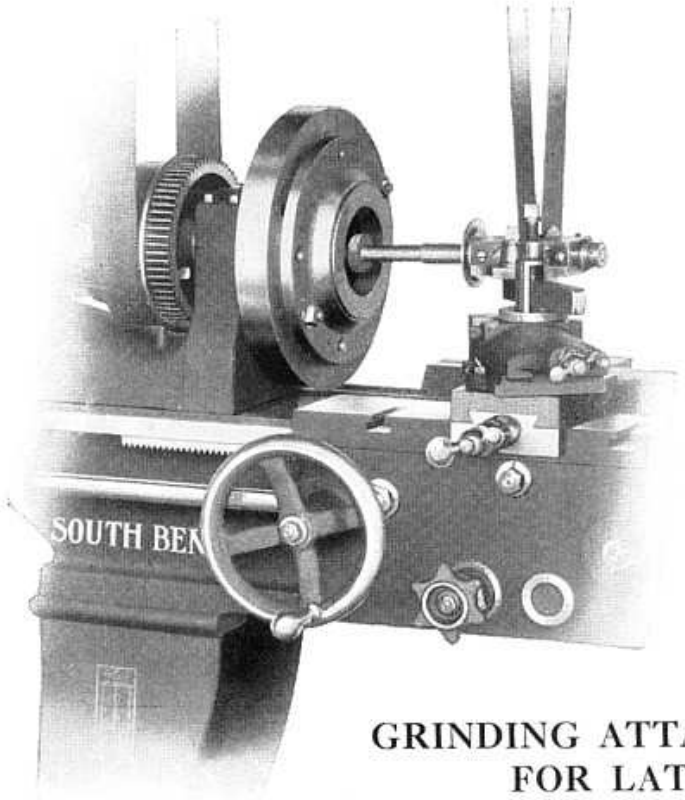
TAPER ATTACHMENT

Fitted to a 15-inch South Bend Lathe

The illustration shows our improved taper attachment fitted to a 15-inch South Bend Lathe. The attachment is fitted to the lathe bed proper, attached by two clamps to the rear V of the bed. This arrangement admits of the adjustment of the taper attachment along the entire length of the lathe.

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

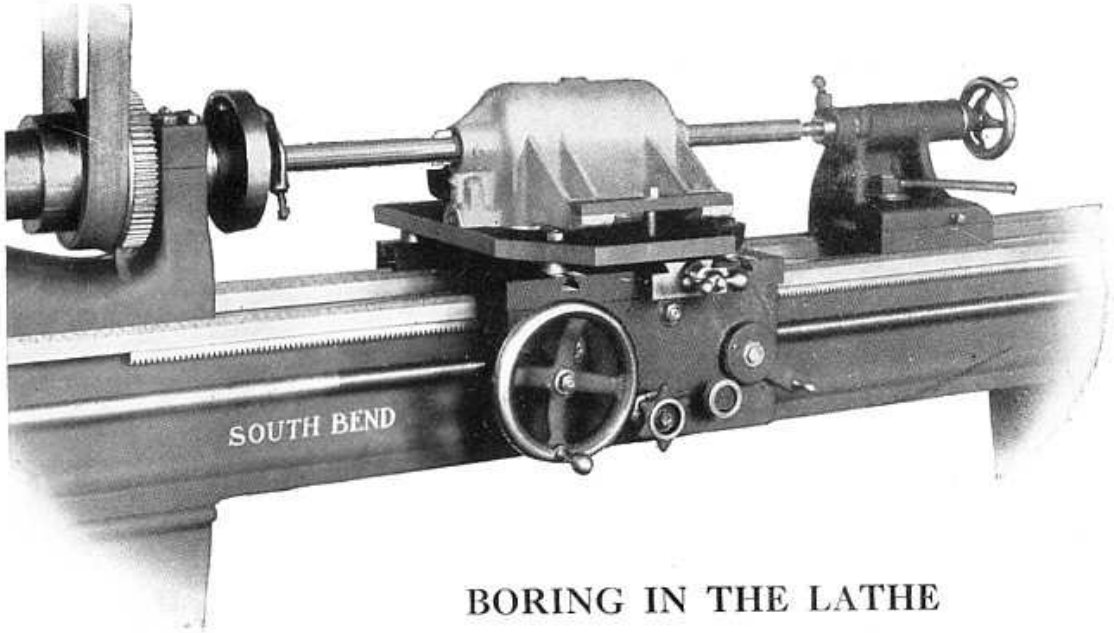
Size of Lathe	11″	12″	13″	14″	15″	16″	18″
Price of Attachment . .	$30.00	$35.00	$35.00	$35.00	$38.00	$40.00	$45.00



GRINDING ATTACHMENT FOR LATHE

The above illustration shows the application of a Grinding Attachment held in the tool post of an engine lathe. The emery wheel is driven by a wooden 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 countershaft of lathe.

We do not manufacture this Grinding Attachment, as the requirements of different shops vary so. Most shops prefer to build an attachment that is suitable for the work that they have on hand, such as grinding rolls for printing machinery, or grinding engine cylinders, valve stems, etc.

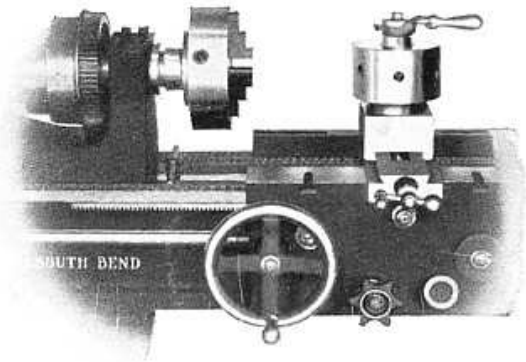


BORING IN THE LATHE

The above cut shows a transmission case being bored in a lathe. The tool rest has been removed and an auxiliary plate bolted to the saddle. This plate may be adjusted for height by the collars or washers underneath.

The case to be bored is clamped into position on the auxiliary plate. A boring bar carrying one or more fly cutters, as shown, is driven on centers. The adjustment of the fly cutter after each chip, is made by a slight blow of a hammer, which moves the cutter the distance required.

In some boring jobs two or more fly cutters may be used at different distances on the bar, for example: A bar may contain three fly cutters boring three holes on one job, each of the three holes may be 2 inches apart and of different diameters. The method of making, attaching and adjusting this fly cutter in a boring bar is fully described in book, "How to Run a Lathe." (See page 48.)



TURRET ON CARRIAGE

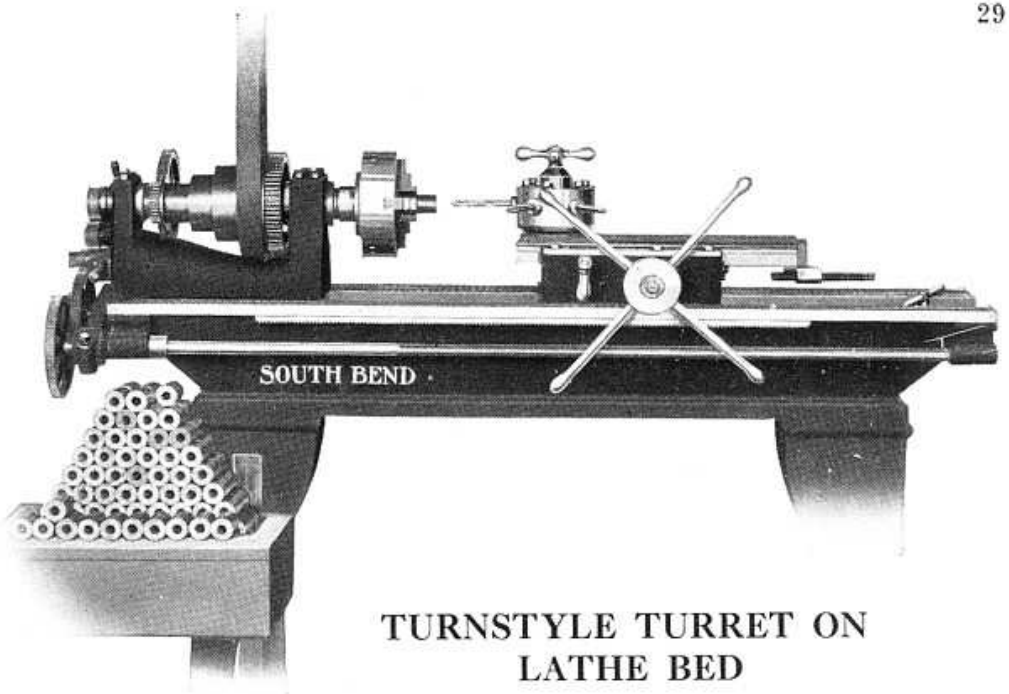
Semi-Automatic Turret Head

This 6-hole turret, semi-automatic turret head, 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 hole 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 fitted and bored for tools is listed herewith.

Turret should be fitted at factory.

Size Lathe	11"	12"	13"	14"	15"	16"	18"
Price of Turret on Carriage..	$50.00	$50.00	$60.00	$70.00	$70.00	$80.00	$90.00



TURNSTYLE TURRET ON LATHE BED

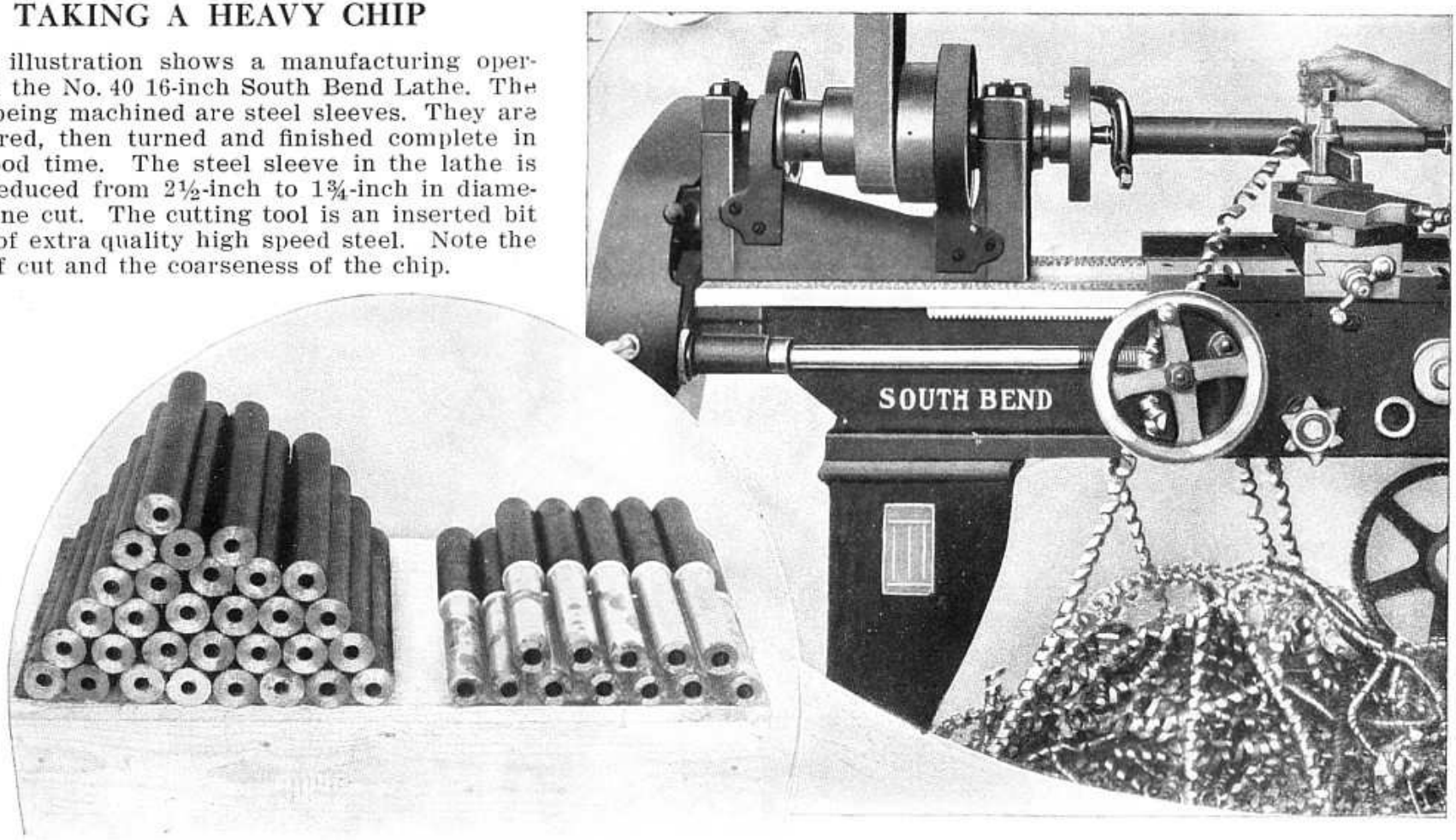
The illustration shows a 16-inch South Bend Lathe fitted with a semi-automatic turnstyle turret on bed. Turret has six holes for tools, as shown above in the manufacturing operation of drilling, tapping and reaming a steel sleeve. The turret base rests on the inside V and flat way of lathe bed which guide the head and tail stock. The turret slide may be used in conjunction with the lathe carriage if required. The lathe carriage and tail stock have both been removed from the lathe for convenience.

Price of the Turnstyle Turret fitted to lathe bed and bored for tools is as follows: Turret should be fitted to lathe at factory.

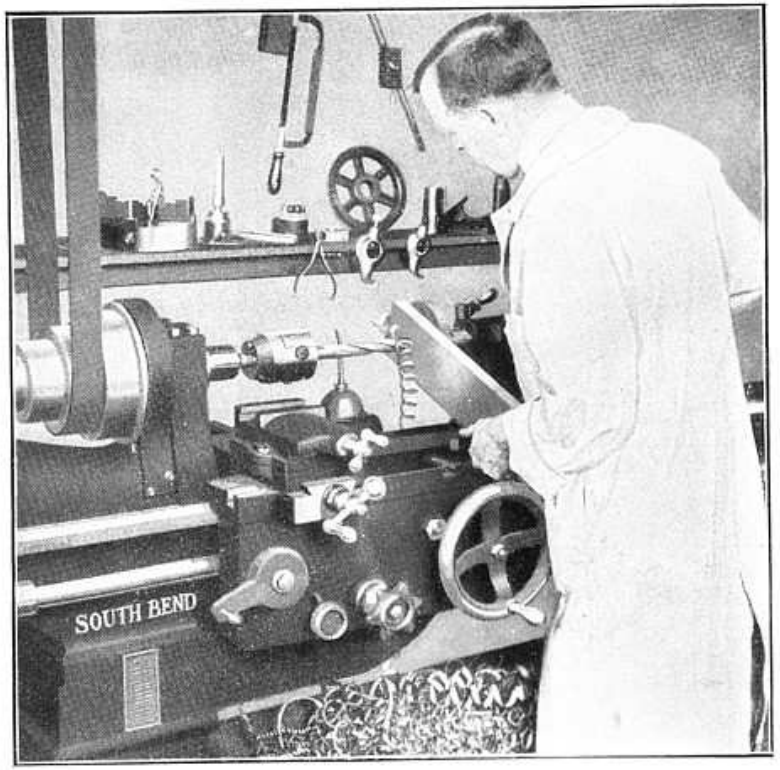
Size Lathe	11"	12"	13"	14"	15"	16"	18"
Turnstyle Turret on Bed	$110.00	$125.00	$140.00	$145.00	$150.00	$165.00	$180.00

TAKING A HEAVY CHIP

The illustration shows a manufacturing operation in the No. 40 16-inch South Bend Lathe. The pieces being machined are steel sleeves. They are first bored, then turned and finished complete in very good time. The steel sleeve in the lathe is being reduced from 2½-inch to 1¾-inch in diameter in one cut. The cutting tool is an inserted bit that is of extra quality high speed steel. Note the depth of cut and the coarseness of the chip.



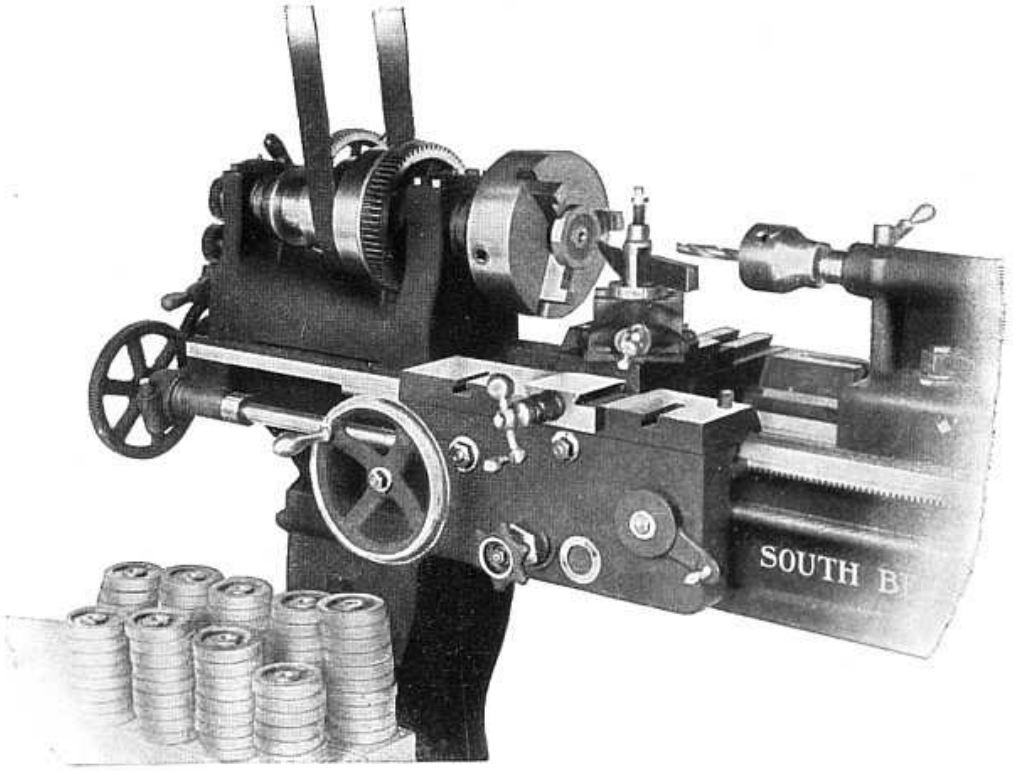
THE No. 40—16-INCH LATHE ON A MANUFACTURING OPERATION



USING THE LATHE AS A DRILL PRESS

The illustration shows a 1-inch drill boring through a piece of steel 1-inch thick on a 16-inch South Bend Lathe, the feed being operated by the hand wheel of tail stock. The back gears are in mesh, the power delivered at the point of the drill is equal to that of a 24-inch back gear drill press.

Practically any drilling job that can be done on the drill press may also be done on the lathe, ranging in size of hole from ⅛ inch to 2 inches in diameter.



DRILLING AND FACING OPERATION

The illustration above shows a number of steel discs that have been drilled and faced and reamed in one chucking on a No. 40 16-inch South Bend Lathe. A Universal chuck is fitted to the spindle nose, and a drill chuck fitted to the tail spindle of the lathe.

A lathe can be rigged up with a few simple attachments to turn out a great many jobs at a productive cost equal to a high-priced special type machine, while the cost of the lathe is perhaps only one-fourth of that of the special machine, and when the job is finished you may use your engine lathe for general machine work.

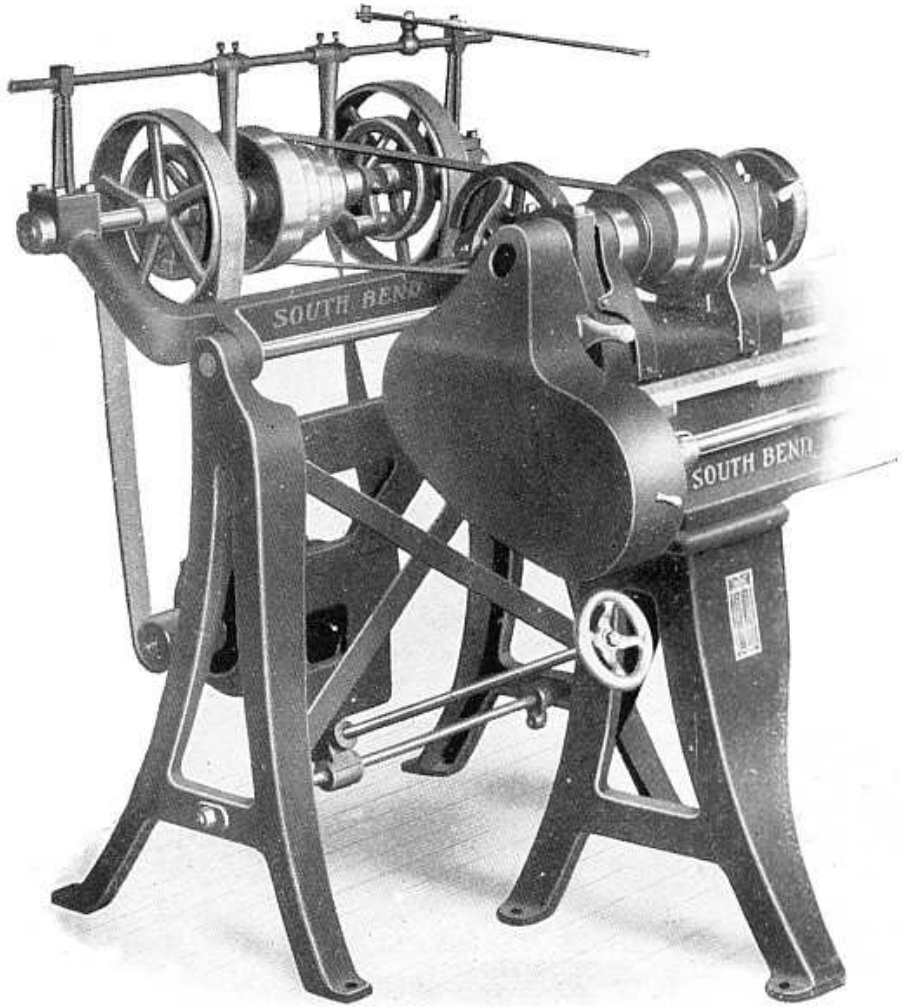


Fig. 1—Front End View

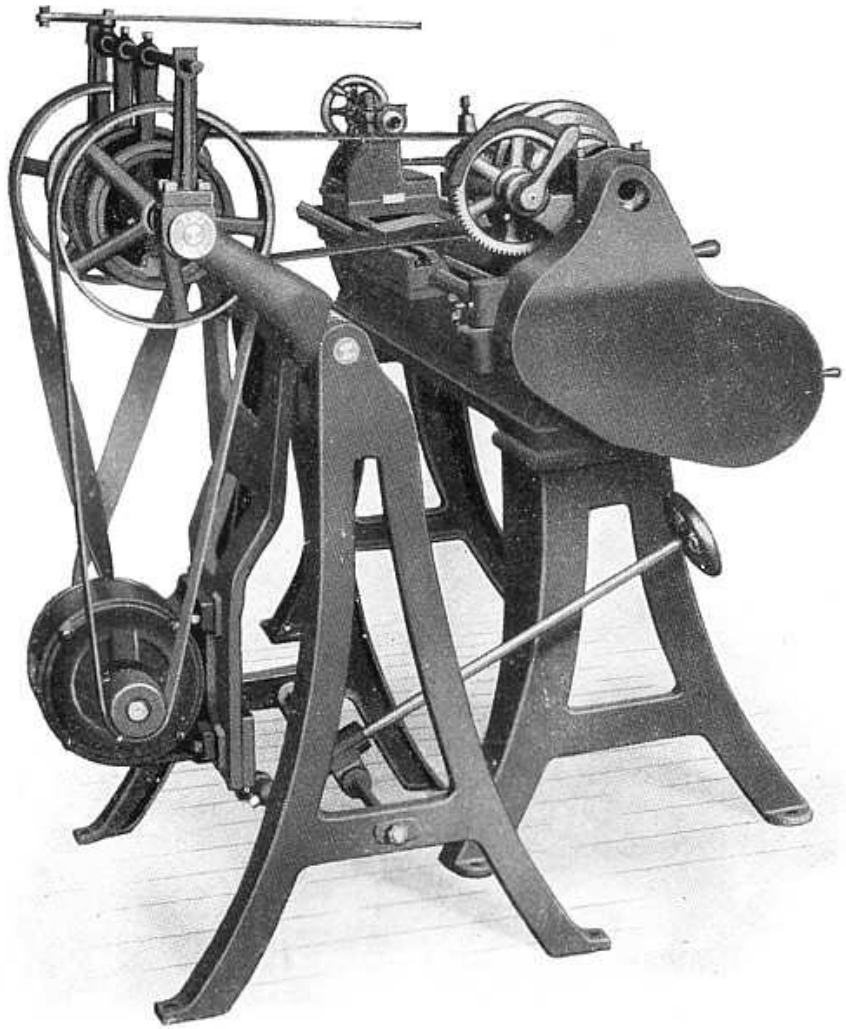


Fig. 2—Rear End View

SOUTH BEND INDEPENDENT ELECTRIC MOTOR DRIVE ATTACHMENT FOR LATHES

SOUTH BEND ELECTRIC MOTOR DRIVE ATTACHMENT FOR LATHES

Reversible Double-Drive Method

Practical Variable Speed through Countershaft

The illustrations on opposite page show the South Bend Lathe equipped with electric motor drive attachment.

The cast iron bracket, which carries both countershaft and motor, is pivoted on a separate stand in the rear of the lathe. This bracket is adjustable as a belt tightener between the countershaft and spindle cones. Adjustment can be made by the screw and hand wheel, while the lathe is running. Belt from motor to countershaft may be tightened by a simple adjustment arranged for at the base of motor.

Note that the electric motor drive attachment is entirely independent of the lathe. This is a simple, practical attachment, because it does away with all intricate and expensive reduction gears, reversing motors, and variable speed motors.

The starting, stopping and reversing of the lathe spindle, also the variation of speed is obtained through the countershaft in the regular manner, as though the countershaft were attached to the ceiling. All these features are made possible by the reverse belt. As will be seen the motor has two driving pulleys, one on either side of frame. The pulley on the head end of motor drives the straight belt, while that on the opposite end drives the reverse belt.

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 off pulley when reverse is not used.

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

Any constant speed motor, alternating or direct current having a speed, approximately 1100 or 1200 R. P. M. can be used. We can purchase the motor or the customer may supply it. When ordering motor to be used with the above electric drive attachment, note the following specifications, viz:

Armature shaft should be long enough to extend through frame on the left side of motor far enough so as to allow a pulley to be attached similar in dimensions to the standard pulley on the right end of frame.

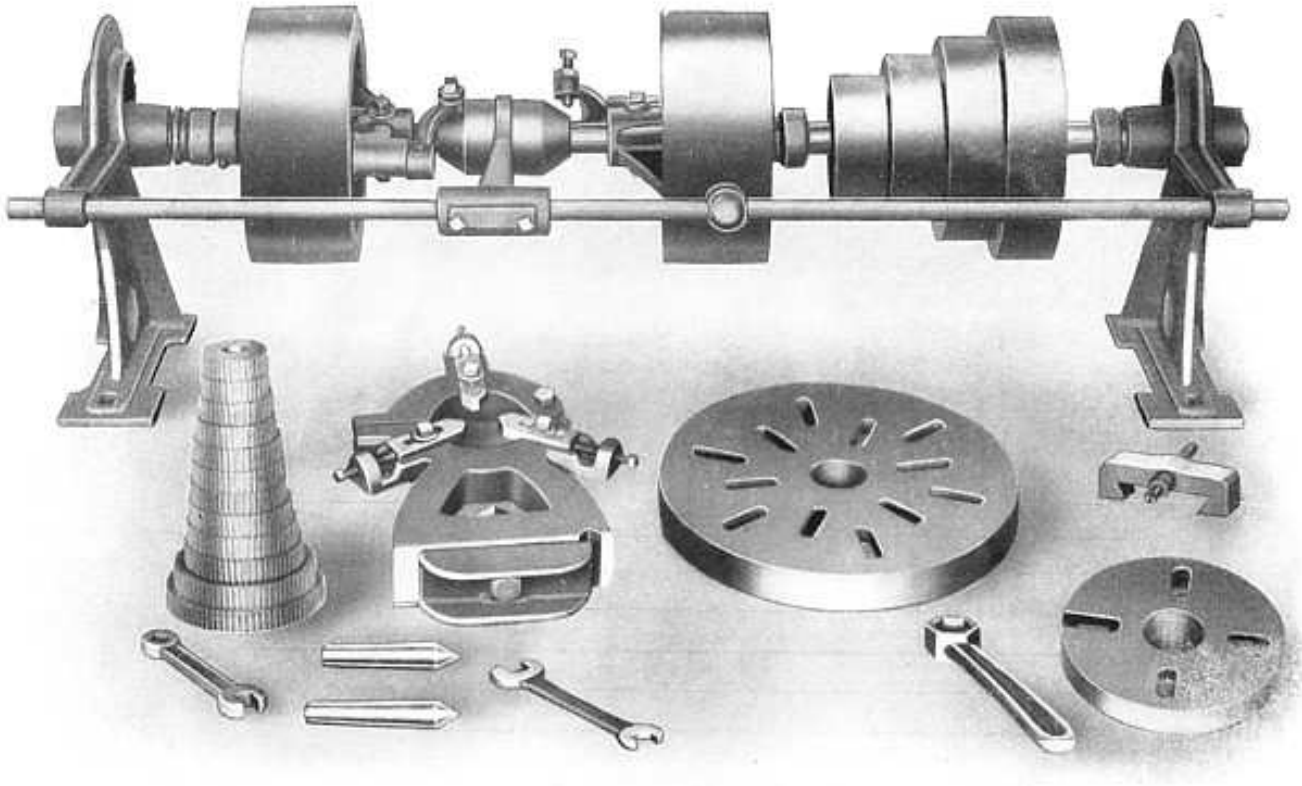
Current may be direct or alternating. If alternating, state voltage, phase, and cycle. If direct, state voltage.

Price of South Bend electric motor drive attachment does not include motor nor lathe with its equipment. The attachment differs in size for each lathe, as shown in price list.

When lathes are ordered with electric motor drive attachment, the lathe and motor should be fitted in our shop. The electric drive attachment is used in connection with the regular countershaft of lathe, so if electric drive and foot power are both wanted, the cost of foot power will be extra.

HORSE POWER OF MOTOR REQUIRED FOR DRIVING SOUTH BEND LATHES

Size of Lathe	11"	12"	13"	14"	15"	16"	18"
Horse Power of Motor	½	½	¾	1	1½	2	2½
Countershaft, R. P. M.	300	300	300	300	300	250	250



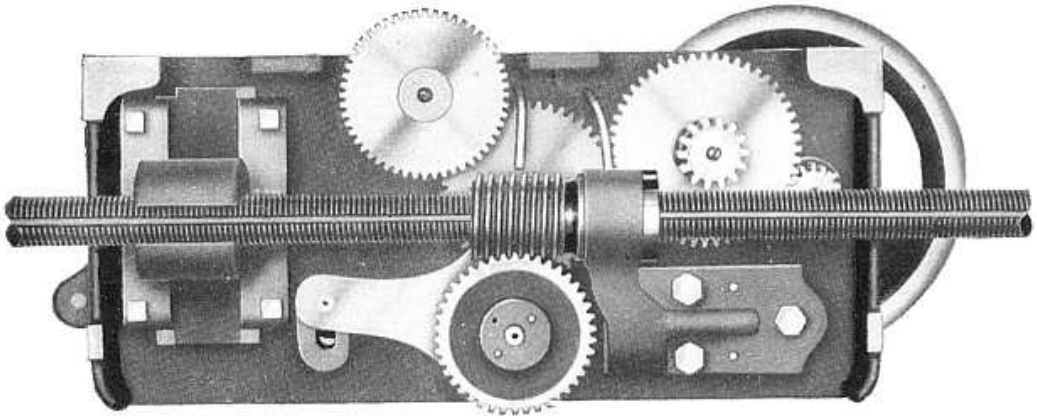
Regular Equipment of Detached Parts Illustrated Above Are Included In Price of Lathe

In illustration above we show countershaft, large face plate, small face plate, center rest, change gears, adjustable thread gage, centers, and necessary wrenches, all of which are included in the regular equipment covered by the prices quoted on South Bend 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 one of the most efficient countershafts on the market.

Dimension of Pulleys and Speed of Countershaft

Size of Lathe	Size of Friction Pulley	Speed of Countershaft
11 in.	7 x 2 in.	225 R. P. M.
12, 13 in.	8 x 2½ in.	225 R. P. M.
14, 15 in.	9 x 2 in.	200 R. P. M.
16, 18 in.	10 x 3½ in.	180 R. P. M.

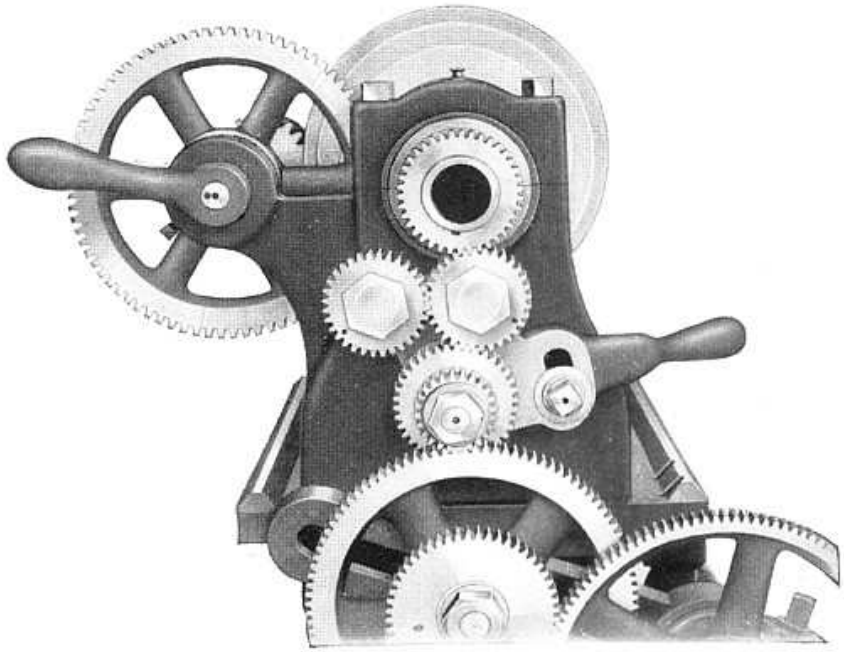


FEED MECHANISM

of Automatic Apron

Illustration shows the inside view of the automatic apron of the Nos. 29, 34, 35, 36, 37, 40 and 44 South Bend Lathes. Note that the lead screw is splined for driving the worm which operates both the automatic cross feed and the automatic longitudinal feed. This arrangement allows the thread of the lead screw to be used for screw cutting only. In screw cutting we use only the split half-nuts. For this reason a splined lead screw on the South Bend Lathe should last a lifetime, as the thread of the screw is not used to drive either the automatic longitudinal feed or the automatic cross feed, but is used only when cutting threads.

Another improved feature in this apron is that the automatic cross feed and the automatic longitudinal feed can be operated only one at a time, so that it is impossible for one feed to drop in while the other feed is in operation. The importance of this feature will be appreciated by the mechanic.

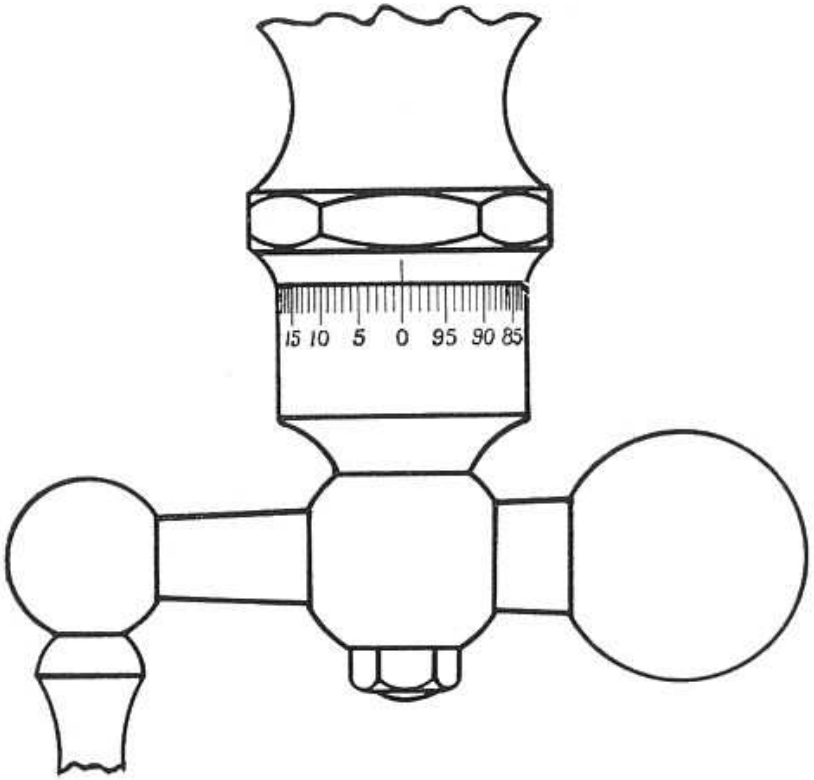


IMPROVED REVERSE

for South Bend Lathes

The above cut shows our Improved Reverse, which is attached to all sizes of South Bend Lathes. The object of a reverse on a lathe is to change the direction of rotation of the lead screw. This reverse is placed on the head end of lathe and is within easy reach of the operator at all times. The most important uses of the reverse are in cutting threads right or left, changing the direction of the power cross feed in and out, and changing the direction of the automatic longitudinal feed right or left.

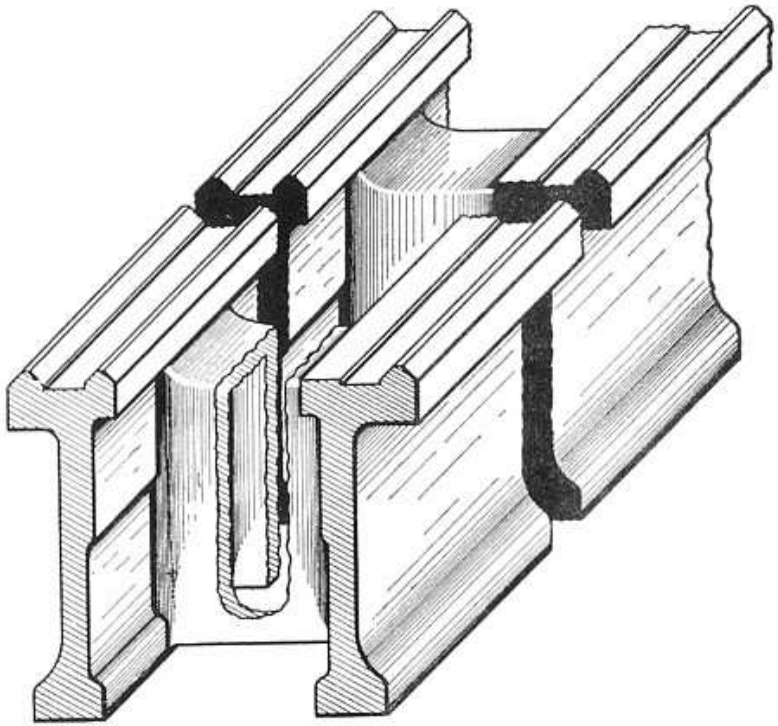
The Reverse has a great many other advantages which are unnecessary to explain here, but which the mechanic can appreciate.



GRADUATED COLLAR

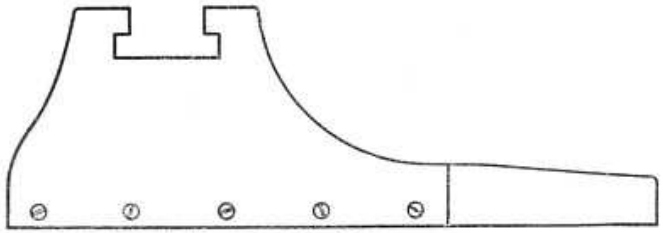
on Cross Feed Screw

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 or backward any number of thousandths he desires.



CROSS SECTION OF LATHE BED

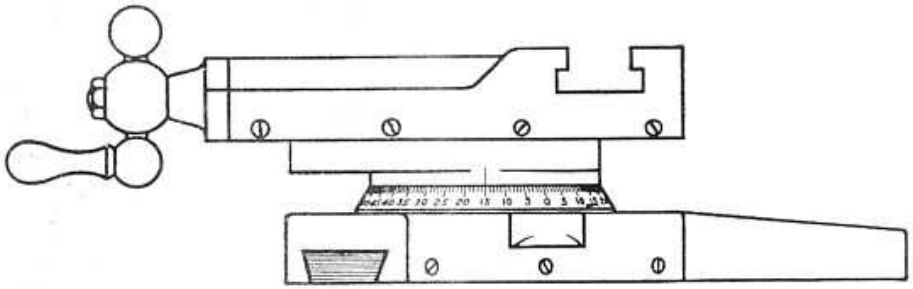
The drawing shows a cross section of Lathe Bed, with one box rib cut away to show the construction, which is the general design of beds on all South Bend Lathes. There are a number of box ribs cast in the bed at various distances from 18 inches to 24 inches apart, depending upon the size of bed. The 11-inch lathe beds have plain ribs.



Plain Rest

PLAIN REST FOR LATHE

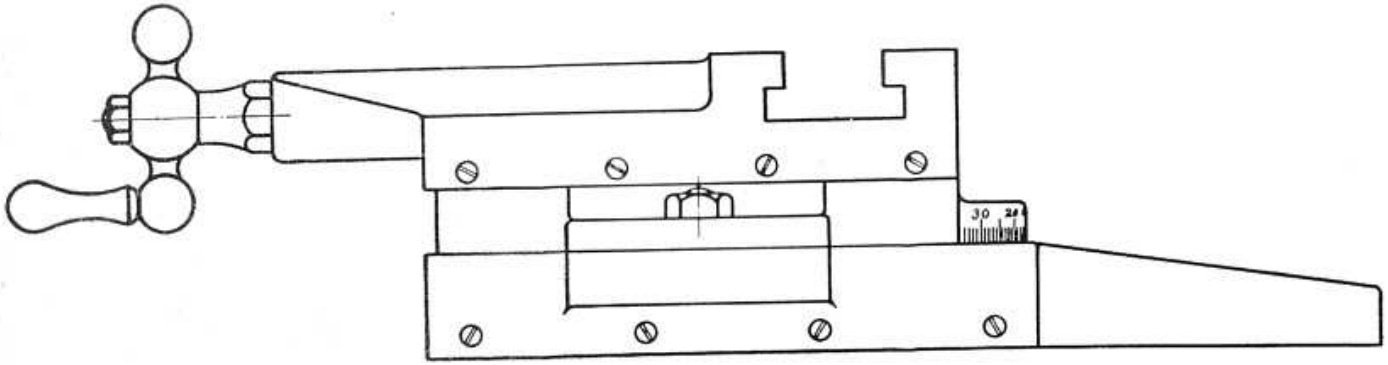
Plain rest shown in drawing does not swivel on the saddle like the compound rest, therefore cannot be used in turning, boring or machining a piece on an angle. The plain rest can be operated only by the carriage cross feed screw. The plain rest is used principally in manufacturing where a number of similar pieces are being plain turned on the lathe.



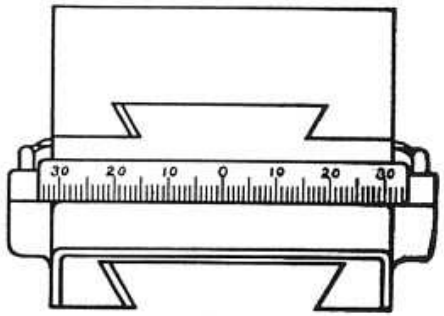
Graduated Compound Rest for 11-inch South Bend Lathes

COMPOUND REST FOR LATHE

The compound rests shown in drawings are practical on the lathe, because they enable one to do general tool and machine work of various kinds. These rests may be swiveled and set at any angle for turning, boring or machining. They are operated both by their own screw and also by the carriage cross feed screw. We recommend a compound rest on the lathe that is to be used for general all around work in the machine shop.

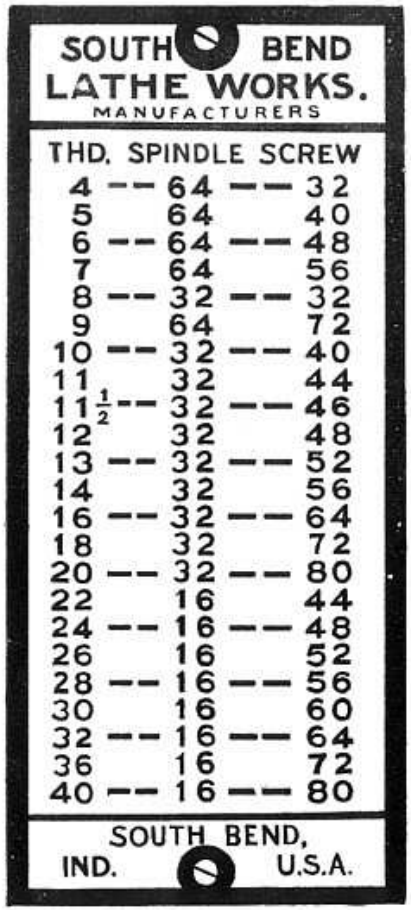


Side View



Rear View

Graduated Compound Rest for 12, 13, 14, 15, 16 and 18-inch South Bend Lathes



Index Chart

THREAD CUTTING CHART

The chart shows the arrangement of gears for cutting all standard threads from 4 to 40, including 11½ pipe thread, on a No. 34 Lathe. One of these metal charts is attached to each South Bend Lathe. Many threads other than shown may be cut on the lathe by compounding gears.

FEED GEARS

Compound feed gears are included in the equipment without extra cost. 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.

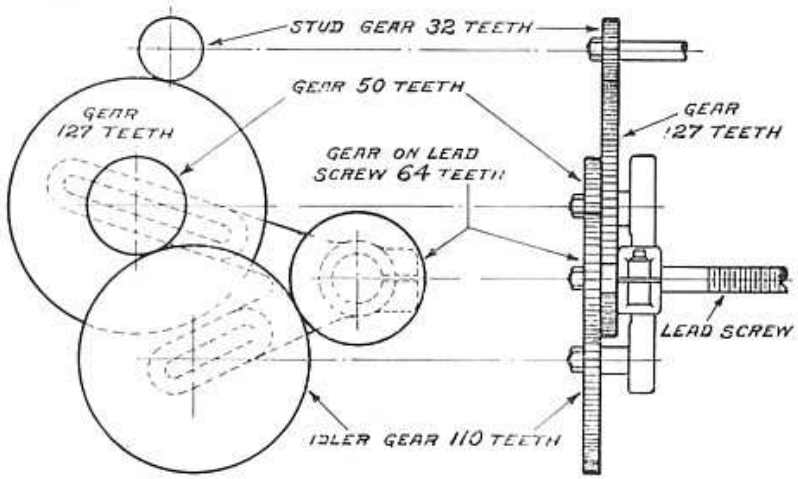
METRIC THREADS

Metric Threads may be cut on South Bend Lathes with the standard English lead screw by using transposing gears, furnished at extra cost. When Metric Threads exclusively are to be cut, we furnish a Metric Lead Screw instead of the regular lead screw, without extra cost.

TRANSPOSING GEARS

Used For Cutting Metric Threads on an English Lead Screw

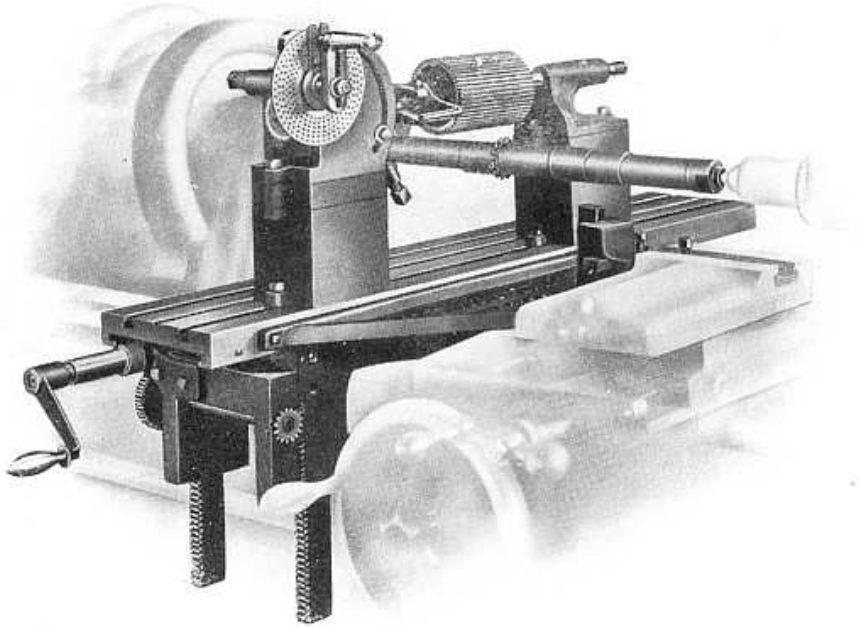
To cut Metric Threads on a South Bend Lathe equipped with standard English lead screw, use the Compound Idler or connecting gears 50 and 127, the No. 127 Gear to mesh with spindle stud. Use an idler to connect the 50-tooth gear with Gear on Lead Screw.



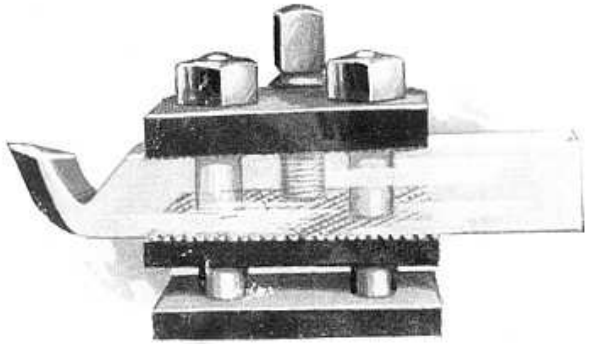
Arrangement of gearing to cut 16 thread per centimeter on a No. 34 South Bend Lathe.

When Metric Threads are to be cut on an English lead screw, Index Chart of lathe may be used in selecting gears for the different pitches. Read the chart as so many threads per centimeter, instead of so many threads per inch. Transposing gears are not included in the equipment, but are extra.

South Bend Lathes may be equipped with a Metric Lead Screw instead of an English Lead Screw, without extra cost.



Gear Cutting Attachments for Lathes



European Tool Post

GEAR CUTTING ATTACHMENTS FOR LATHES

Illustration shows the No. 3 practical Gear Cutting Attachment for cutting gears on South Bend Lathes. This attachment is complete, with power feed, hand worm and lever feed, elevating mechanism, indexing head, tail center, three dial plates, giving 133 changes, swivel vise, two sets elevating blocks, driving dog, cleats and gibs.

The No. 2 Gear Cutting Attachment is similar in design and equipment to that of the No. 3, except that it is smaller in dimensions, for use on smaller size lathes.

When operating the cutter from the bottom of the work, as shown in illustration, the No. 2 attachment will handle gears up to 11 inches in diameter, and the No. 3 up to 15 inches in diameter, less the diameter of the cutter used. Cast iron gears, 6 pitch, have been cut on both the No. 2 and No. 3 attachment.

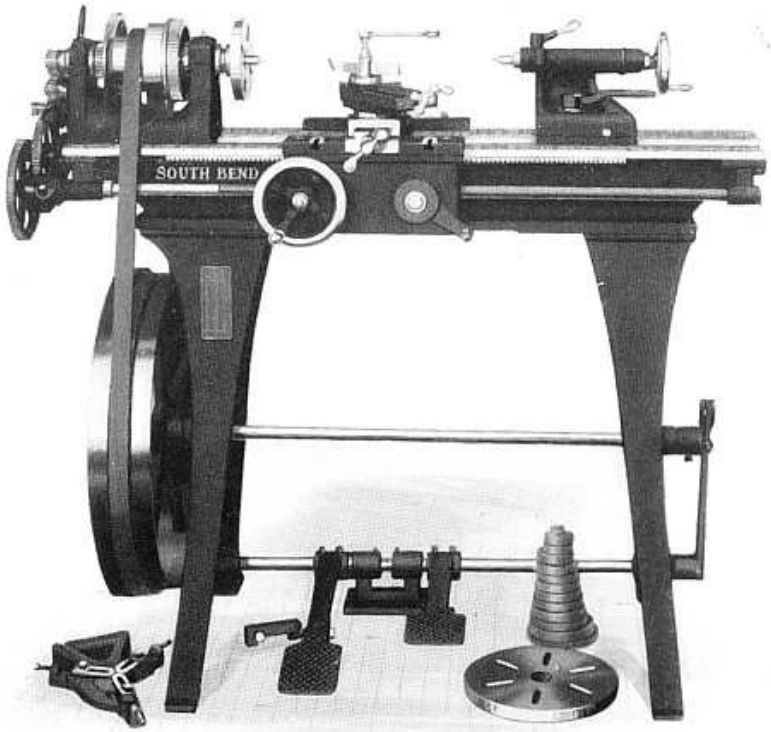
Price No. 2, for use on 11", 12", 13", and 14" lathes $100.00
Price No. 3, for use on 15", 16", and 18" lathes..... 125.00

EUROPEAN TOOL POST

Any size South Bend Lathe may be fitted with an European Tool Post, if desired, instead of our regular American Tool Post, without extra cost.

The European Tool Post is made of steel, and case hardened. This tool post is to be used in conjunction with the compound rest. We would not recommend the European Tool Post for use on the plain rest, because this rest cannot be swiveled at various angles.

The American Tool Post has one advantage over the European post, in that the operator can get a vertical adjustment of about 3/8-inch at the cutting point of the tool.



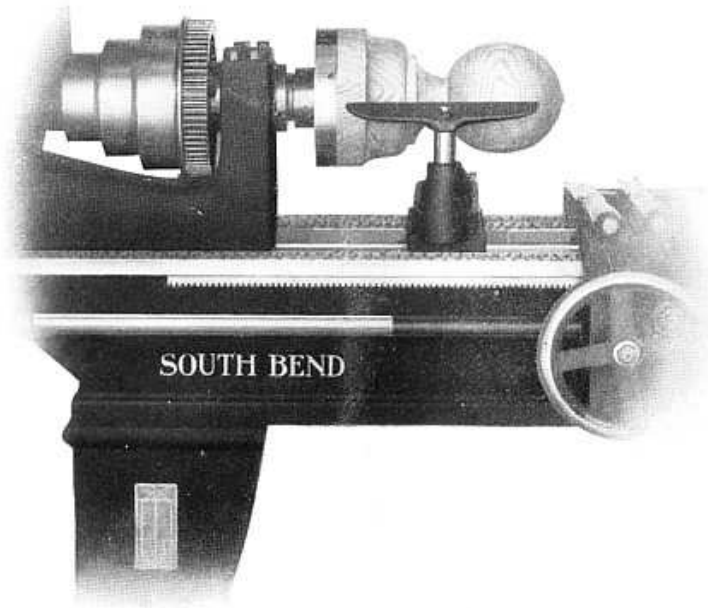
SOUTH BEND LATHE No. 28

Equipped With Foot Power

The Nos. 28, 11-inch; 29, 11-inch; 30, 12-inch; 32, 13-inch and 34, 13-inch lathes may be equipped with Foot Power instead of Countershaft, at no extra cost.

FOOT POWER

Illustration shows our double lever foot power. Each treadle is attached to a separate shaft and is adjustable lengthwise on the shaft and may be fastened at any angle desired. This foot power is easy to operate, and develops greater power with less effort than the old style devices.



PATTERN MAKING, WOOD TURNING AND HAND REST

South Bend Lathes may also be used for wood turning, as the necessary high speed may be obtained through the countershaft.

For wood turning on straight work the operator may fasten the cutting tool in the tool post and operate the lathe carriage by the automatic feed. For irregular work a hand rest may be fastened in the tool post, or we can supply a hand rest like the above. Price of special hand rest complete, including two T rests and bolts for attaching to any size lathe, $4.00.

CENTERS, DRILL PADS, SCREW CHUCKS, AND ARBORS

A number of accessories which are very useful for various 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	11-12"	13"	14-15"	16-18"
B. Drilling Chuck, ½" capacity.....	$1.50	$1.75	$1.75	$2.00
Screw Chuck .... For Wood Turning	1.75	2.00	2.00	2.25
Screw Center.... For Wood Turning	1.75	2.00	2.25	2.25
Drill Pad.....	1.75	2.00	2.00	2.25
Crotch Center ..	1.75	2.00	2.25	2.25

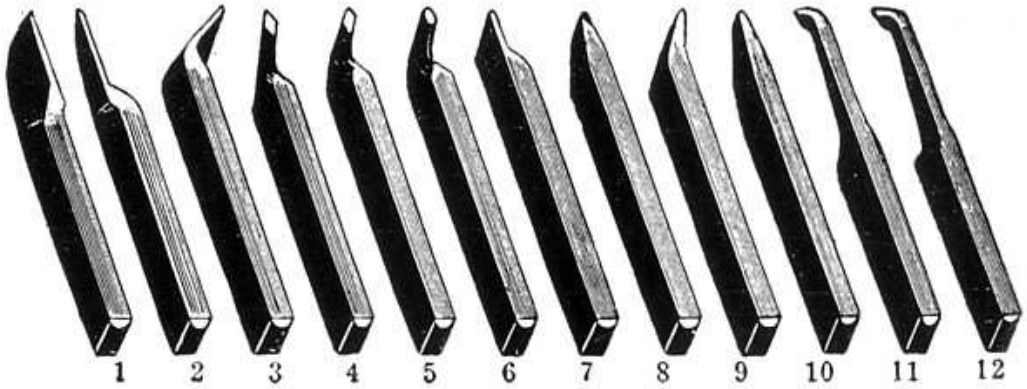
Size of Lathe	11-12"	13"	14-15"	16-18"
Spur Center ..... For Wood Turning	$1.75	$2.00	$2.00	$2.25
Cup Center ..... For Wood Turning	1.50	2.00	2.00	2.25
Half Center	1.25	1.50	1.50	1.75
60-degree Lathe Center	1.25	1.50	1.50	1.50
Semi-Machined Drill Chuck Arbor..... fitted to lathe spindle.	.75	.75	1.00	1.00
Drill Chuck Arbor ..... finished	1.00	1.25	1.25	1.50

Any drill chuck fitted with finished arbor, for head spindle of the lathe, will also fit the tail spindle.

FORGED 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 carbon 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 11" Lathes	size of steel, 3/8 x 3/4	Length, 5"	Price each	$ .40	Set of 12	$ 4.00
For 12" Lathes	size of steel, 1/2 x 7/8	Length, 7"	Price each	.50	Set of 12	5.00
For 13" Lathes	size of steel, 1/2 x 1	Length, 7"	Price each	.60	Set of 12	6.00
For 14" Lathes	size of steel, 1/2 x 1	Length, 7"	Price each	.60	Set of 12	6.00
For 15" Lathes	size of steel, 5/16 x 1 1/8	Length, 8"	Price each	.70	Set of 12	8.00
For 16" Lathes	size of steel, 5/8 x 1 1/4	Length, 9"	Price each	1.00	Set of 12	10.00
For 18" Lathes	size of steel, 5/8 x 1 1/4	Length, 9"	Price each	1.00	Set of 12	10.00

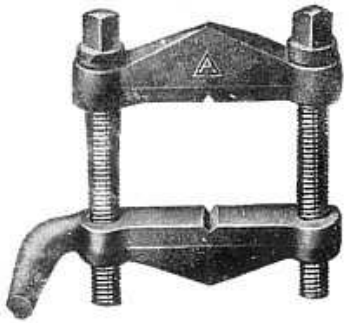
Code, Tensen	
Code, Tune	
Code, Tornes	
Code, Torop	
Code, Torser	
Code, Tory	
Code, Toll	

LATHE DOGS

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

	Size	Price Each	
No. 1	¼"	$ .25	Set of 6A $2.00
No. 2	½"	.25	
No. 3	¾"	.35	
No. 4	1"	.35	
No. 5	1¼"	.45	
No. 6	1½"	.50	
		$2.15	
No. 7	1¾"	$ .50	Set of 6B $4.00
No. 8	2"	.60	
No. 9	2½"	.75	
No. 10	3"	.75	
No. 11	3½"	.80	
No. 12	4"	.90	
		$4.30	

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.

	Capacity	Price each
No. 11	1¾" between screws.	$1.50
No. 12	2¼" between screws.	2.00
No. 13	2¾" between screws.	2.50
No. 14	3½" between screws.	3.50

PATENT THREADING TOOL

For Cutting Threads

No.	Size of Shank	Price
1	⅜ x ¾ x 5¼	$2.75
2	½ x 1 x 6	3.00

The P. & W. Threading Tool is one of the most practical on the market. The patent cutter is hardened and tempered, and it is adjustable. To sharpen, simply grind off the top face of the cutter.

FOLLOWER REST

The illustration shows a follower rest, which may be used on all sizes South Bend Lathes. The follower rest is not included in the equipment of lathe, as it is intended only for special work. The price is extra, as shown below.

Price of Follower Rest

11" and 12" Lathes	$2.00
13" and 14" Lathes	3.00
15", 16" and 18" Lathes	4.00

PATENT LATHE TOOLS

TURNING TOOLS

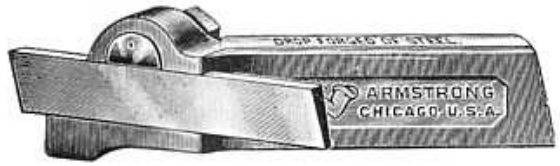
Each Tool is carefully packed in a cardboard box, and price includes one Drop Forged Wrench and two self-hardening Steel Cutters, ground to shape.

Size of Lathe	No. L. Hand	No. R. Hand	No. Straight	Size of Shank	Size of Cutters	Price Complete	Extra Cutters
11", 12"	0-L	0-R	0-S	3/8 x 7/8 x 5"	1/4 in. sq.	$1.65	$ .12
13", 14" 15"	1-L	1-R	1-S	1/2 x 1 1/8 x 6"	5/16 in. sq.	1.80	.18
16", 18"	2-L	2-R	2-S	5/8 x 1 3/8 x 7"	3/8 in. sq.	2.30	.25

CUTTING OFF TOOLS

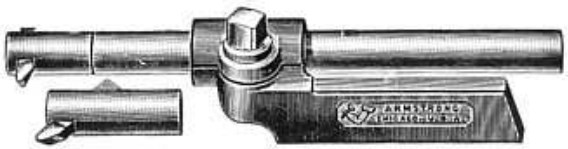
Price List — Complete with Drop Forged Wrench and one Self-Hardening Steel Blade.

Size of Lathe	Right-Hand Off-Set	Size of Shank	Size of Blades	Price Complete	Extra Blades Each
11", 12"	No. 30-R	3/8 x 7/8"	3/32 x 5/8"	$1.65	$ .25
13", 14", 15"	No. 31-R	1/2 x 1 1/8"	1/8 x 3/4"	1.80	.35
16", 18"	No. 32-R	5/8 x 1 3/8"	1/8 x 7/8"	2.30	.45

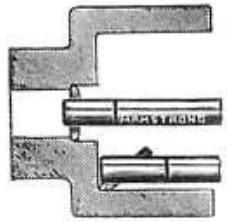


BORING TOOLS

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.



Size of Lathe	No.	Size of Shank	Size of Bar	Size of Cutter	Price Complete	Extra Cutter
11", 12"	8	3/8 x 7/8"	9/16" dia	5/16" sq	$3.00	$ .12
13", 14", 15"	9	1/2 x 1 1/8"	3/4" dia	1/4" sq	3.60	.15
16", 18"	10	5/8 x 1 3/8"	15/16" dia	5/16" sq	4.75	.20



CHUCK FITTED TO LATHE AT FACTORY

When ordering a lathe with chuck included, the chuck should be fitted to the lathe before it leaves the factory, because it is a difficult job for one to fit a chuck accurately, especially without the proper tools for doing this work.

We have a special equipment for threading chuck plates and fitting chucks to lathes, charging only the actual cost of the labor and material. We do this as an accommodation to the customer, so that the chuck will fit the lathe accurately.

SEMI-MACHINED CHUCK PLATE

No. 301

Fig. 301 shows a cast iron semi-machined chuck plate; semi-machined because it has been bored, faced, and threaded to fit the spindle nose of various sizes of South Bend Lathes.

For fitting Lathe Chuck to lathe spindle see book, "How to Run a Lathe," where this subject is explained in detail.

SIZE OF CHUCKS FOR A LATHE

Size of Lathe Chuck most practical for South Bend Lathes, viz:

11-inch and 12-inch Lathes.....4" to 8" chuck inclusive
13, 14-inch Lathes .....5" to 9" chuck inclusive
15-inch Lathe .....6" to 10" chuck inclusive
16-inch Lathe .....6" to 12" chuck inclusive
18-inch Lathe .....8" to 14" chuck inclusive

No. 302
View of Back of Lathe Chuck

The recess on the back of the chuck is to receive the semi-machined chuck plate. **For fitting chuck backs to chuck, see book, "How to Run a Lathe," where this subject is fully explained.**

PRICE OF SEMI-MACHINED CHUCK PLATE AND FITTING CHUCK TO LATHE

The price of the semi-machined chuck plate, and the fitting of chuck to lathe complete is not included in the price of the lathe or chuck, but is extra as shown herewith.

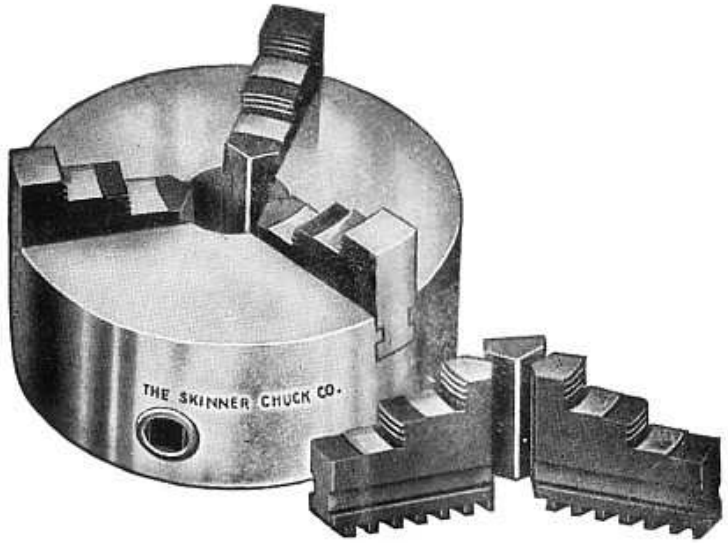
Size of Lathe	11"	12, 13"	14, 15"	16, 18"
Price Semi-Machined Chuck Plate	$1.00	$1.50	$1.75	$2.00
Price Fitting Chucks to Lathes, including S. M. Chuck Plate.....	1.50	2.00	2.50	3.00

"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.

No.	Capacity, Inches	Diameter, Inches	Price Each
000	0 to ¼	1⅜	$ 6.00
00	0 to ⅜	1 11/16	6.50
100	0 to ½	2 3/16	7.00
101	0 to ¾	2⅞	8.00
102	0 to 1	3 7/16	10.00

For fitting Drill Chucks to lathe, see bottom of page 41.



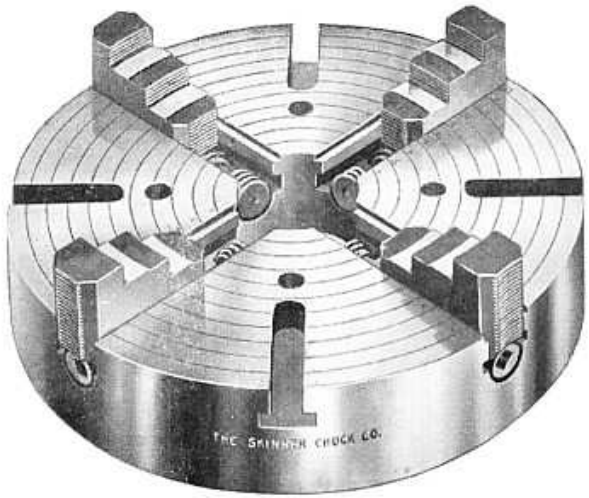
UNIVERSAL GEARED SCROLL CHUCK

With Two Sets of Jaws

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

No.	Nominal Size Inches	3 Jaw Price 2 Sets Jaws	4 Jaw Price 2 Sets Jaws
200	4	$14.40	$16.20
201	5	18.00	20.20
203	6	21.60	24.30
204	7½	24.00	28.00
205	9	28.80	32.40
206	10½	32.40	36.40
207	12	36.00	40.40
208	15	48.00	53.90

For fitting Chuck to lathe, see page 45.



INDEPENDENT LATHE CHUCK

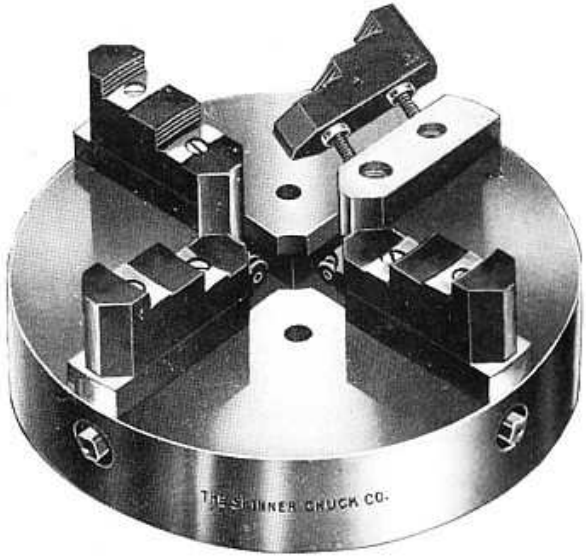
With Four Independent Reversible Jaws

This Chuck has four solid jaws with half nut, reversible by running out of Chuck at the periphery, and turning end for end. The jaws are hardened, have raised and ground steps. The face of Chuck is ground true to straight edge and is accurately graduated in inches. T slots are furnished only on chucks 12 inches and larger.

They are all made with **Hardened Steel Bearings** for the screws. Price includes wrench.

No.	Rated Size of Chuck, Inches	Will Hold About, Inches	Price
300	4½"	6"	$14.00
301	6"	7½"	18.00
302	7½"	9½"	20.00
303	9"	11½"	24.00
304	10"	12½"	26.00
305	12"	14½"	30.00
306	14"	16½"	34.00
307	15"	18"	36.00

For fitting Chuck to lathe, see page 45.



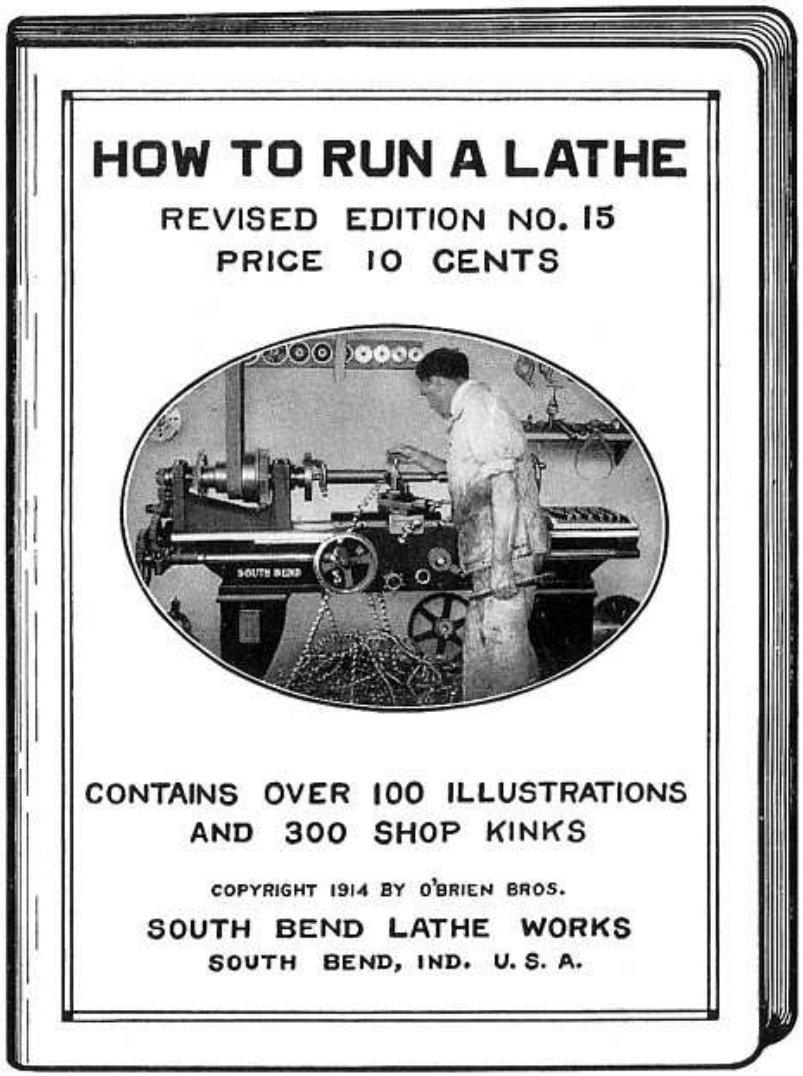
COMBINATION CHUCK, GEARED SCREW

With Patent Reversible Jaws

No.	Rated Size Inches	Will Hold Approximately Inches	Price, 3 Jaws	Price, 4 Jaws
400	4"	4 1/16"	$22.00	$26.00
401	5"	5¾"	25.00	30.00
402	6"	7¼"	26.00	32.00
403	8"	8⅝"	30.00	38.00
404	9"	9½"	34.00	42.00
405	12"	12⅞"	44.00	56.00
406	15"	16⅝"	52.00	64.00

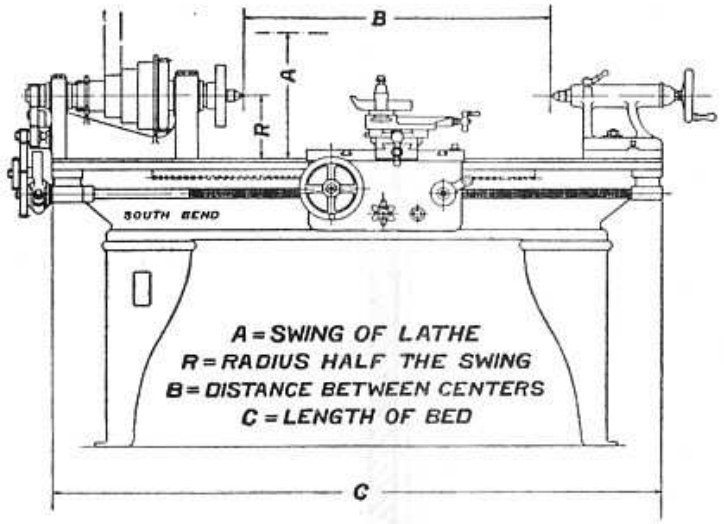
A Combination Chuck is a combination of a Universal and an Independent Chuck. The jaws work universally to and from the center, but by shifting a stud on the back of chuck, throwing gears out of mesh, the jaws work independently. Price includes wrench.

For fitting Chuck to lathe, see page 45.



10 Cents Postpaid—Coin or Stamps Accepted

In writing for book "How to Run a Lathe," mention Catalog No. 49.



SIZE OF LATHE

The size of an Engine Lathe is determined by the SWING and LENGTH OF BED. See above drawing.

The drawing shows front elevation for erection of lathe taken from book "How to Run a Lathe," where the subject is fully described.

The revised edition No. 15 "How to Run a Lathe" contains over 100 illustrations and 300 shop kinks, among which are the following:

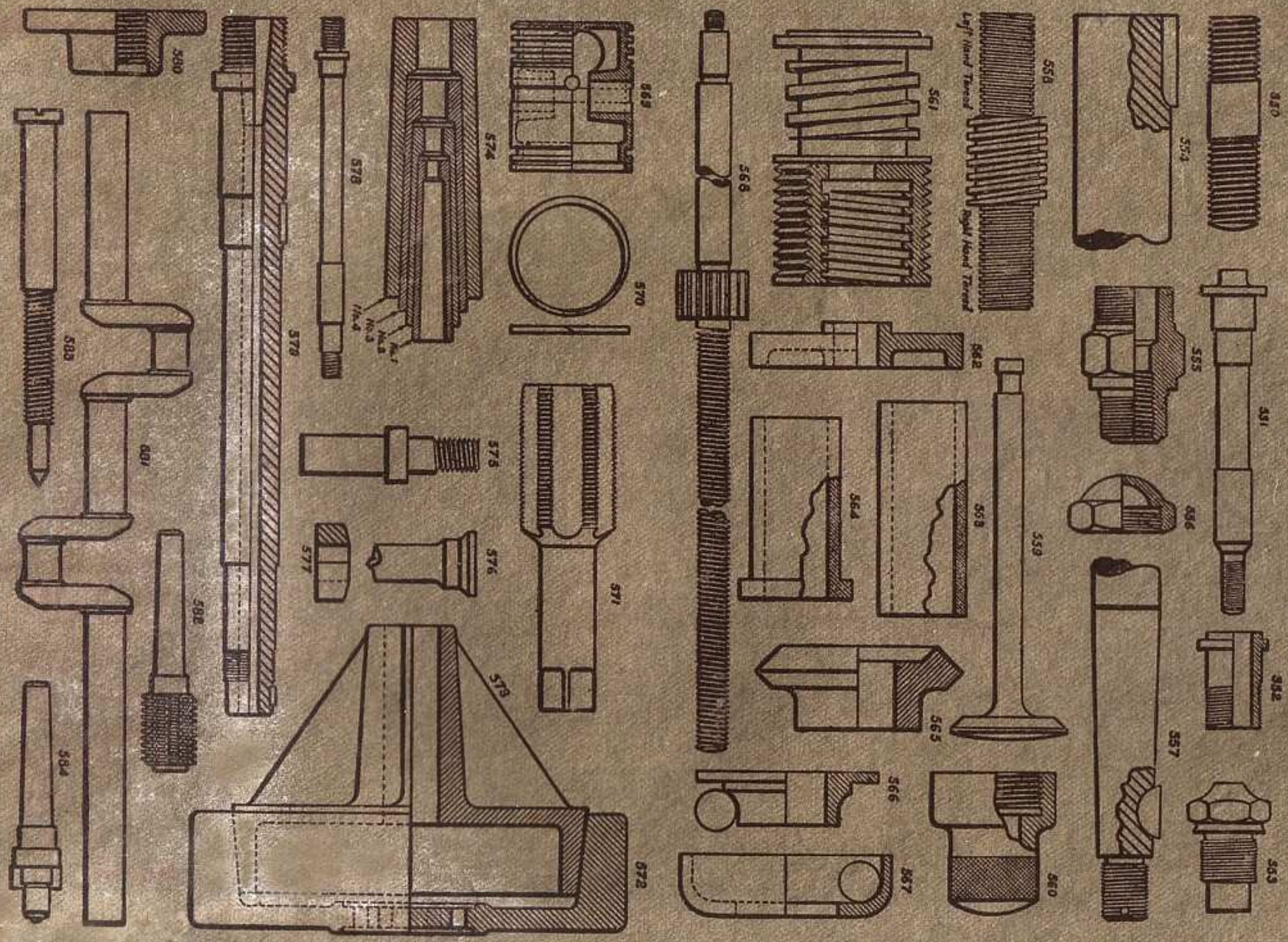
Layout for model machine shop,
Size and speed of lineshaft, etc.,
Rules for size and speed of pulleys, etc.,
Rules for thread cutting,
Cutting speeds for different metals, etc., etc.

The book also contains a number of complete drawings, and instruction sheets on various jobs that the repair shop is likely to meet with, viz:

Making and fitting of piston rings,
Truing a valve stem,
Making of ball race and cone,
Drawings and description of standard tapers,
Hardening, tempering and annealing steel,
Case hardening, etc., etc.

BOOK WITH EACH LATHE

One of the above books "How to Run a Lathe" is included free with each South Bend Lathe. It will be found packed in the box with the regular equipment.



A Few of the Many Pieces that can be Produced on a South Bend Lathe

A FEW USERS OF SOUTH BEND LATHES

WESTINGHOUSE ELEC. & MFG. CO.,
PITTSBURGH, PA.

INTERNATIONAL HARVESTER CO.,
DETROIT, MICH.

COLORADO FUEL & IRON CO.,
PUEBLO, COLO.

DALY REDUCTION CO., LTD.,
HEDLEY, B. C., CANADA.

NATIONAL LAMP WORKS,
CLEVELAND, OHIO.

JOHN MILLEN & SONS,
TORONTO, ONT.

STANDARD TYPEWRITER CO.,
NEW YORK.

J. & P. COATES CO., INC.,
PAWTUCKET, R. I.

GARDEN CITY FEEDER CO.,
PELLA, IOWA.

NOVA SCOTIA STEEL & COAL CO.,
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AURORA, ILL.

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CHICAGO, ILL.

DOMINION TEXTILE CO., LTD.,
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ANN ARBOR, MICH.

EDISON LAMP WORKS,
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NEW ENGLAND ENGINEERING CO.,
WATERBURY, CONN.

HARVARD UNIVERSITY,
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WESTERN STATE NORMAL SCHOOL,
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PANAMA CITY, FLA.

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NEW BRIGHTON, PA.

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MALVERN, ARK.

DAVID BRADLEY MFG. CO.,
BRADLEY, ILL.

ALLIS-CHALMERS MFG. CO.,
MILWAUKEE, WIS.

UNION PACIFIC RAILROAD CO.,
OMAHA, NEBR.

Thousands of South Bend Lathes are in service in manufacturing plants, machine shops, repair shops, textile mills, mines, mills, and automobile shops.

L. S. [illegible] CO. SOUTH BEND, IND.