

ATTACHMENTS, CHUCKS, TOOLS and ACCESSORIES

For All Sizes and Types of

NEW MODEL SOUTH BEND LATHES

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BULLETIN No. 77

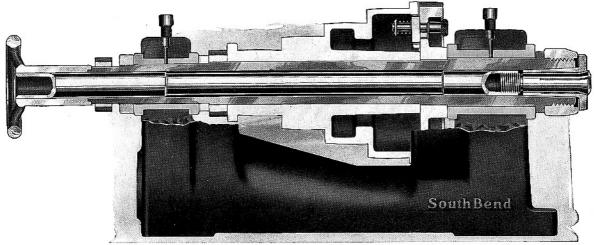
January, 1930

South Bend Lathe Works

477 East Madison St., South Bend, Indiana, U. S. A.

Established 1906

Lathe Builders for 24 Years



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

Draw-in Collet Chuck Attachment for South Bend Lathes

Made in Seven Sizes for Quick and Standard Change Gear Lathes

For Tool Room Work

The Hand Wheel Type Draw-in Collet Chuck Attachment is used extensively in the Tool Room in making small tools and parts where accuracy is essential. It is the most accurate type of chuck made and is the choice of experienced tool makers and machinists for fine, accurate work.

For Manufacturing

The Draw-in Collet Chuck, both Hand Wheel Type and Hand Lever Type, is used for manufacturing small precision parts for watches, typewriters, sewing machines, adding machines, radios, etc. The hollow draw bar permits and rods to be passed through the lathe spindle and held in the chuck for machining. This method of manufacturing small parts is both rapid and economical.

How the Draw-in Collet Chuck Operates

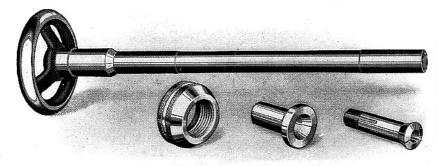
The Hollow Draw Bar, internally threaded on the end, extends through the lathe spindle and screws on the threaded end of the steel split collet. Operating the draw bar, (either hand wheel or hand lever type) causes the collet to tighten or release the work.

In the Hand Wheel Type Draw-in Collet Chuck, illustrated below, the collet is operated by turning the hand wheel which causes it to grip or release the work held in the collet.

In the Hand Lever Type Draw-in Collet Chuck, illustrated on page 4, the collet is operated by means of the hand lever, permitting the work to be gripped or released while the spindle is in motion. A special adjustment is provided for changing the tension or gripping action.

Hand Wheel Type Draw-in Collet Chuck Attachment

For All Sizes and Types of South Bend Lathes



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

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

Size of Lathe	Cat. No.	Hole in Lathe Spindle	Collet Capacity in Sixty-Fourths (for Round Work)	Code Word	Price Each
9 in.	4309	34 in.	好 in. up to ½ in.	Aaron	\$33.00
11 in.	4311	76 in.	去 in. up to 先 in.	Abode	38.00
13 in.	4313	1 in.	去 in. up to % in.	About	44.00
15 in.	4315	116 in.	去 in. up to % in.	Above	50.00
16 in.	4316	136 in.	去 in. up to % in.	Adore	56.00
18 in.	4318	1 % in.	or in. up to 1 in.	Adult	63.00
24 in.	4324	1% in.		Alarm	90.00

*For prices of extra collets see page 3.

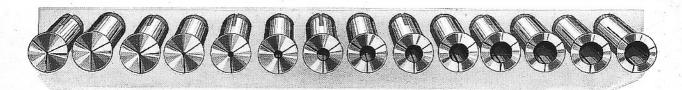
Made in Seven Sizes

The Hand Wheel Type Draw-in Collet Chuck Attachment, illustrated at the left, is made in seven (7) sizes to conform to the seven sizes and various types of New Model South Bend Lathes. The collet capacity of the Draw-in Collet Chuck is limited by the size of the hole in the spindle of the lathe on which it is used. For specifications and prices see tabulation below.

What the Price Includes

The price of the Hand Wheel Draw-in Collet Chuck Attachment includes hand wheel and hollow draw bar, nose cap for protecting threads of spindle nose, spanner wrench for nose cap, tapered steel closing sleeve for fitting collet to headstock spindle, and one round split collet of any size desired up to the maximum capacity of lathe.

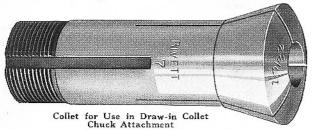
The tapered closing sleeve furnished with this attachment is made of tool steel, hardened and ground, to minimize wear and insure accuracy.



Split Collets for Draw-in Chuck Attachments

Furnished in a Wide Range of Hole Sizes

The illustration above shows a group of collets, the hole sizes of which range from 10-inch to 34-inch in diameter, in steps of sixteenths of an inch. The tabulation below shows the size range of collets for each size lathe.



Split Collets for Round Work

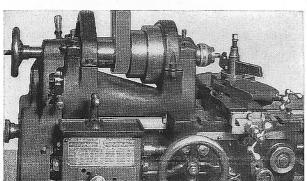
Above is shown a split collet. All collets for Draw-in Collet Chuck Attachments used on the New Model South Bend Lathes are made of tool steel, hardened and tempered. They are ground both outside and inside to insure accuracy. The left end is threaded for the hollow draw bar and has a keyway to prevent the collet from turning while holding the work. The other end is tapered to conform to the tapered closing sleeve furnished with the attachment. Three slots permit the collet to close or release as the tension on the hollow draw bar is increased or decreased.

Ordering Collets

When ordering extra collets for Draw-in Collet Chuck Attachments specify hole size of collet wanted and size of lathe to be used on. These collets fit both hand wheel and hand lever types of Draw-in Collet Chuck Attachments.

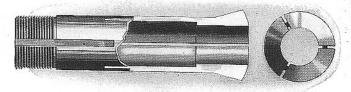
Net Factory Prices of Split Collets for Round Work

Size of Lathe	Cat. No.	Hole in Lathe Spindle	Collet Capacity in Sixty-Fourths (for Round Work)	Code Word	Price Each
*9 in.	609	¾, in.	i in up to ½ in.	Cabot	\$3.85
11 in. 13 in.	611 613	% in. 1 in.	ar in. up to 常in.	Cello Chose	4.40 5.00
15 in. 16 in.	615 616	1½ in. 1% in.	Frin, up to % in.	Civit Clear	5.50 6.00
18 in.	618	$1\sqrt{g}$ in.	er in up to 1 in.	Comet	6.50
24 in.	624	1% in.	1 1 in. up to 1 % in.	Curse	8.50



Hand Wheel Draw-in Collet Chuck Used for Machining Special Pins

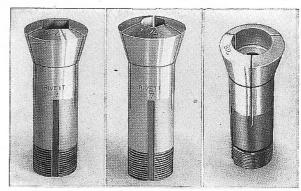
Round split collets are the most widely used for manufacturing and in the tool room. We carry these in stock in sizes from \$\frac{1}{64}\$-inch hole diameter to the hole capacity of the lathe by 64ths, 32nds, and 16ths of an inch.



Side and Front View of Collet Showing Construction

Cross-Section of Split Collet

Above is illustrated a cross section of the hardened and ground tool steel collet. Notice the three slots which divide the tapered end of the collet into three segments. This permits the collet to be contracted or expanded as it is drawn into or released from the tapered closing sleeve in the lathe spindle.



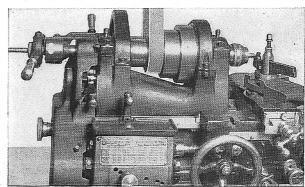
Square

Hexagon

Step Collet

Types of Special Split Collets

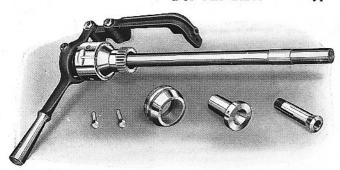
Square, Hexagonal, and Round Step Collets are made to order. Prices on request. Special size collets such as the odd diameter drill, wire gauge and metric sizes can be furnished on request.



Hand Lever Draw-in Collet Chuck Used in Production of Small Screws

Hand Lever Type Draw-in Collet Chuck Attachment

For All Sizes and Types of South Bend Lathes



Hand Lever Type, Draw-in Collet Chuck

What the Hand Lever Type Consists of

The price of the Hand Lever Draw-in Collet Chuck Attachment includes Hand Lever Mechanism and Hollow Draw Bar, Nose Cap for protecting threads of the spindle nose, Spanner Wrench for nose cap, Tapered Steel Closing Sleeve for fitting collet to headstock spindle, and one Round Split Collet of any size desired up to the maximum capacity of the lathe. The Tapered Closing Sleeve is made of tool steel, hardened and ground.

How the Hand Lever Draw-in Collet Chuck Operates

The Hand Lever Draw-in Collet Chuck permits releasing and feeding bar stock through the collet, without stopping the lathe, by means of an adjustable chuck closer. The gripping action of the collet can be adjusted to any desired tension by regulating the cylinder of the adjustable chuck closer.

For Rapid Production Work

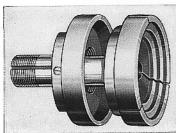
The rapid production and accuracy of the Hand Lever Draw-in Collet Chuck Attachment makes it a very economical tool for use in manufacturing small interchangeable parts where accuracy and precision are required.

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

Size of Lathe	Catalog No.	Hole in Lathe Spindle	Collet Capacity in Sixty-fourths (for Round Work)	Code Word	Price, Each
9 in.	5209	34 in.	or in. up to ½ in.	Allen Among	\$ 75.00 85.00
11 in. 13 in.	5211 5213	% in. 1 in.	tin, up to fin.	Andes	105.00
15 in.	5215 5216	1½ in. 1¾ in.	or in. up to % in.	Askew	110.00 120.00
16 in. 18 in.	5218	I ve in.	in. up to 1 in.	Atoll	160.00 Not Made
24 in.			*************		INOT Made

*For price of extra collets see page 3.

Step Chuck and Closer



Step Chuck and Closer

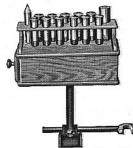
The Step Chuck and Closer is used for holding discs and similar round, flat work. The closers are carried on the nose of the spindle and are interchangeable. The Step Chuck is split but not stepped. It is furnished blank so that it can be machined to fit the work. Either Type of Draw-in Collet Chuck Attachment can be equipped with the Step Chuck and Closer. In ordering give sizes of blanks to be machined. Prices on request.

Collet Cabinet

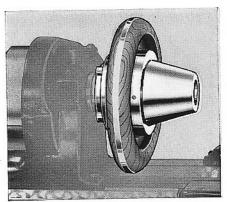
A convenient cabinet for holding collets, centers, wrenches, small tools, etc. Price includes bracket for attaching to the lathe.

Prices of Collet Cabinet

Size of Lathe	Cat. No.	Code Word	Net Price
9 in.	1081	Caged	\$12.00
11 in.	1082	Crome	12.00
13 in.	1083	Cnoke	12.00
15 in.	1084	Cnarl	15.00
16 in.	1085	Cadro	15.00
18 in.	1086	Catch	15.00
24 in.	1088	Cmorn	17.00



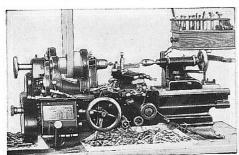
Collet Cabinet and Bracket



South Bend Lathe Fitted with a Spindle Nose Collet Chuck

Spindle Nose Collet Chuck

The Spindle Nose Collet Chuck is fitted with a chuck back which screws on the spindle of the lathe. The opening and closing of the chuck is operated by the hand wheel. This permits bars or rod work to be handled up to the capacity of the diameter of the hole in the spindle and short work of larger diameter up to the depth of the chuck. Complete information and prices will be furnished on receipt of data giving size of work you wish to handle, and the size of your lathe.

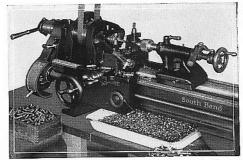


9-inch Quick Change Gear Bench Lathe with Hand Wheel Draw-in Collet Chuck Manufacturing Small Screws

Production Work

The illustration at the left shows a 9-inch New Model Bench Lathe equipped with Draw-in Collet Chuck for use on production of small work. Groups of these lathes are used in many factories for the rapid production of small interchangeable parts for such products as: Sewing machines, typewriters, etc.

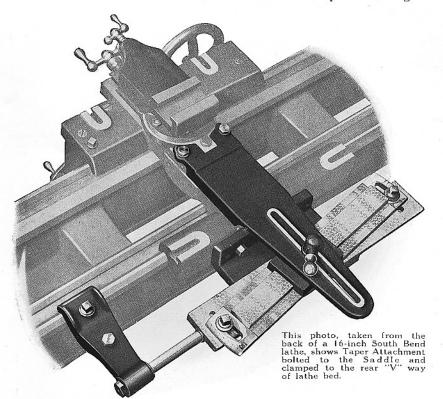
At right is a 9-inch Lathe equipped with Hand Lever Drawin Collet Chuck, Hand Lever Tailstock, also a Hand Lever Double Tool Post, which permits the use of the front and back tool.

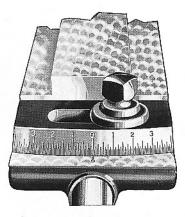


Hand Lever Type Draw-in Collet Chuck Forming and Cutting Off Duplicate Parts from Bar Stock

Graduated Taper Attachment for South Bend Lathes

For All Classes of Taper Turning and Boring





Close-up of Graduation

On End of Swivel Bar

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

Graduated Taper Attachment Fitted to a South Bend Lathe

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

Fitting the Taper Attachment

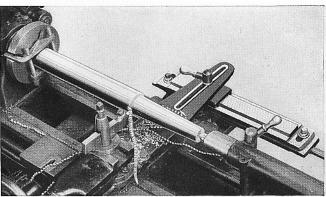
It is advisable to order the Graduated Taper Attachment with the lathe so that it can be accurately fitted at factory; however, it can be purchased and fitted by the customer any time after the lathe is in operation in his shop as the back of the saddle is planed and drilled to receive it.

Can Be Operated Entire Length of Bed

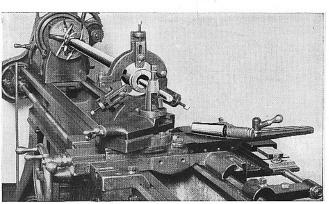
The Taper Attachment is bolted to the Lathe carriage and can be set for taper turning or boring at any position along the entire length of the lathe bed. For examples see bottom of page. The Taper Attachment does not interfere with straight turning as it does not operate unless the clamp on the back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

Net Factory Prices of Graduated Taper Attachment

C1:		Maximum Taper			Approx-	0.1	Price	
		At One Setting	Per Foot	In Degrees	imate Shipping Weight	Code Word	Taper Attach- ment	
9 in.	209	9 in.	3 in.	14	40 lbs.	Dashe	\$ 50.00	
11 in,	211	9 in.	3 in.	14	50 lbs.	Devor	60.00	
13 in.	213	10 in.	3 in.	14	65 lbs.	Digit	75.00	
15 in.	215	10 in.	3 in.	14	80 lbs.	Doted	80.00	
16 in.	216	12 in.	3 in.	14	100 lbs.	Dress	90.00 -	
18 in.	218	12 in.	3 in.	14	120 lbs.	Dunns	95.00	
24 in.	224	14 in.	3 in.	14	150 lbs.	Dyght	140.00	



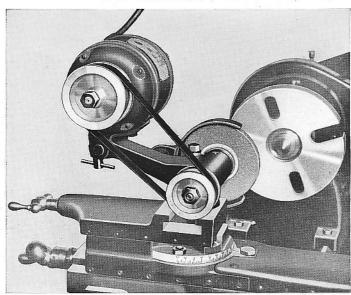
Turning a Taper on a Steel Shaft



Boring a Taper in a Carbon Steel Spindle

No. 15 Electric Grinder for South Bend Lathes

For Grinding Hardened or Tempered Tools and Parts



No. 15 Electric Grinder Mounted on Compound Rest of Lathe

Practical for a Wide Variety of Grinding Work

An Electric Grinder Attachment makes a valuable addition to the Screw Cutting Lathe in any shop that is not equipped with a modern tool room cutter and reamer grinder. The No. 15 Electric Grinder is practical for grinding straight, taper or spiral reamers, lathe centers, milling cutters, taps, dies, valves, pistons, bushings, etc. If considerable stock is to be removed, use the turning tool of the lathe to reduce the work to within a few thousandths of the finished size. Two or three cuts with the Grinder will then produce a smooth, accurate surface.

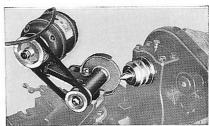
Operates from Electric Light Socket

The No. 15 Electric Grinder operates from an electric light socket. No special installation of electrical service is necessary. Specify electric current when ordering—if DIRECT current give voltage, if ALTERNATING current, give voltage, phase and cycle. The prices below include the No. 15 Electric Grinder as illustrated, with one Alundum Grinding Wheel (Grain 46, Grade M), Extension Cord, Switch, and Clamp for mounting to Compound Rest.

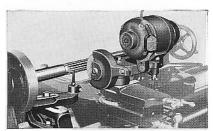
Net Factory Prices of No. 15 Electric Grinder

Catalog No.	Size of Lathe	Size Grinding Wheel	Outside Diameter Will Grind	Size Motor	Code Word	Price, Each
15-I	9 in.	4 in. x 1/4 in.	4% in.	¼ H.P.	Caret	\$75.00
15-J	11 in.	4 in, x 1/2 in.	7½ in.	1/4 H.P.	Celts	75.00
15-K	13 in.	5 in. x 1/2 in.	9 in.	1/3 H.P.	Chums	90.00
15-L	15 in,	5 in, x 1/2 in.	10½ in.	1% H.P.	Cinch	90.00
15-M	16 in.	5 in. x 1/2 in.	11 in.	1/3 H.P.	Clove	90.00
15-N	18 in.	5 in, x 1/2 in.	12½ in.	1% H.P.	Coals	90.00
15-P	24 in.	5 in, x ½ in.	17½ in.	1/2 H.P.	Cured	95.00

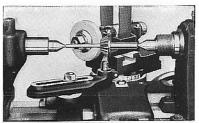
Prices of Special Grinding Wheels will be quoted on application.



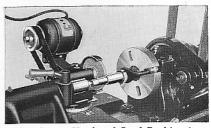
Truing a Hardened Lathe Center by Grinding with No. 15 Electric Grinder



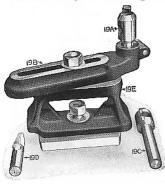
Grinding a Straight Reamer. Spiral and Taper Reamers Can Also Be Ground



Grinding an Angular Cutter in the Lathe with Compound Rest at Correct Angle



Grinding a Hardened Steel Bushing in the Lathe



Adjustable Holding Fixture



Adjustable Holding Fixture

The No. 19 Holding Fixture will hold the industrial diamond for truing wheels, and will also hold the cutter stop. A grinding wheel should be trued up frequently so that the cutting surface will run true.

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

Net Factory Prices of Adjustable Holding Fixture

Size of Lathe	9 in.	II in.	13 in.	15 in.	16 in.	18 in.	24 in.
Catalog No	19	19-B	19-C	19-D	19-E	19-F	19-H
Code Word	Quene	Quarz	Quest	Quick	Quirt	Quota	Qurem
Price. Each	\$8,00	\$9.00	\$10.00	\$12.00	\$13.00	\$15.00	\$18.00

Industrial Diamond Dresser

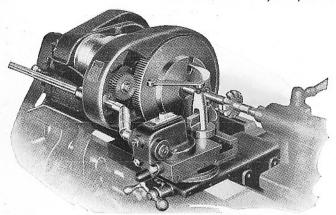
The No. 18 Industrial Diamond Dresser with special metal mount, % carat. Weight % lb. Code Word, "Quaft." Price Each. \$8.00



Truing a Grinding Wheel with a Dresser Mounted in Holding Fixture

Relieving Attachment for New Model South Bend Lathes

For Use on 15", 16", 18" and 24" Lathes, All Types



Relieving a Formed Cutter on the Lathe

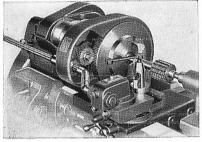
Handles Wide Range of Relieving Work

This Attachment does every kind of relieving except spiral and has an unlimited range for angular work.

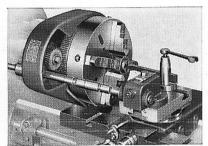
The class of work that can be relieved consists of: Milling cutters, reamers, taps, hobs, etc. It is also arranged for internal relieving of threading dies, etc. It can be quickly changed from relieving to plain turning, thread cutting, or vice versa. It has a graduated scale for amount of relief from 0 to $\frac{9}{32}$ inch. This attachment should be ordered with the lathe so that it can be fitted correctly at the factory.

Net Factory Prices of Relieving Attachment

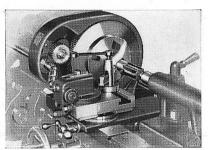
Size of Lathe	Relieves Work Diam.	Cat. No.	Code Word	Price, Each
15 in.	5 in,	953	David	\$350.00
16 in.	6 in.	954	Delta	355.00
18 in.	8 in.	955	Diver	400.00
24 in.	S in.	957	Difel	425.00



Relieving a Hob



Internal Relieving



Relieving a Right Hand Tap

Speed Reducing and Indexing Attachment for South Bend Lathes

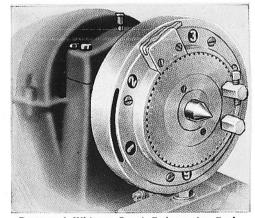
For Relieving, Thread Chasing and Indexing

This attachment provides unusually slow speeds required for relieving operations and precision thread chasing. Designed for mounting on the spindle nose, it is extremely simple to use and is attached or removed about as easily and quickly as an ordinary face plate. Planetary gearing is used to give a 6 to 1 speed reduction from whatever spindle speed is engaged.

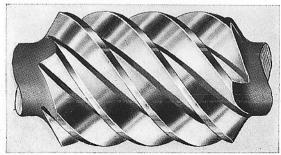
Although the attachment was developed primarily for relieving operations it has many other uses such as cutting extremely long leads and for accurate indexing usually necessary with long leads. Leads up to 3 inches can be cut on our Quick Change Gear Lathes without using special change gears. See examples of work at bottom of page.

Multiple Starts

A plate with 60 notches gives every subdivision needed for ordinary work requiring multiple starts. It is possible to cut 1, 2, 3 and 6 starts simply by making use of the 6 to 1 speed reduction. For this purpose, six index numbers are placed on the face of the attachment, and by engaging the lead screw when the proper number is opposite the index mark the above numbers of starts can be obtained without the notches.



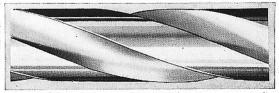
Pratt and Whitney Speed Reducer for Back Geared Lathes



A Large Diameter Multiple Worm Thread, Coarse Lead

Complete Information and Prices

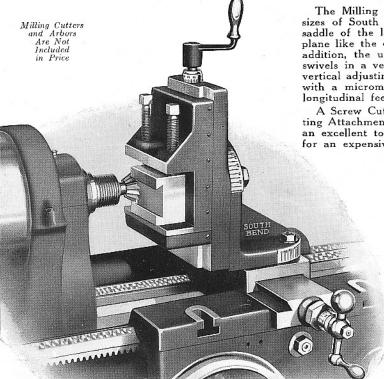
The Speed Reducing and Indexing Attachment can be supplied for all sizes and types of South Bend Lathes. Complete information and prices will be furnished on request.



A Shaft with 3 Starts or Grooves of 1 Turn in 3 Inches

Milling and Keyway Cutting Attachment for South Bend Lathes

An Ideal Attachment for the Shop Not Equipped with Shaper or Milling Machine



Milling a Dovetail on a South Bend Lathe Equipped with Milling Attachment

Made for All Sizes of Lathes

The Milling and Keyway Cutting Attachment is made for all sizes of South Bend Lathes from 9 to 24 inch. It fits on the saddle of the lathe, swivels all the way around in a horizontal plane like the compound rest and is graduated 180 degrees. In addition, the upright Angle Plate to which the vise is attached swivels in a vertical plane, and is graduated 180 degrees. vertical adjusting screw at the top of the attachment is equipped with a micrometer graduated collar. The automatic cross and longitudinal feeds can be used as well as the hand feeds.

A Screw Cutting Lathe fitted with a Milling and Keyway Cutting Attachment and using various types of milling cutters makes an excellent tool for the small shop that has not enough work for an expensive milling machine.

Equipment Included in Price

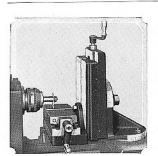
The Equipment consists of a Milling Attachment, two Standard "V" Blocks for holding round work, one Crank Handle for feed screws, one Double End Wrench, and T-bolts and Nuts for attaching to carriage. The Milling and Keyway Cutting Attachment is designed for use on South Bend Lathes and therefore we can not guarantee that it can be fitted to lathes of other makes.

Milling Arbors and Cutters

Milling Arbors and Cutters are not included in the price of the Milling Attachment. For illustrations and prices see page 19 of this bulletin. If milling cutters other than those shown are wanted we shall be pleased to furnish illustrations and prices on request.

Net Factory Prices of Milling and Keyway Cutting Attachment

Size of Attachment	Size of Lathe	Vertical Feed	Cross Feed	Vise Will Hold	Depth of Jaws	Width of Jaws	Width of Base	Weight Each	Code Word	Price Each
No. 1 No. 2 No. 3 No. 4 No. 5 No. 5 ¹ / ₂	9 in. 11 in. 13 in. 15 in. 16 in. 18 in.	3 in. 4 in. 41/4 in. 6 in. 6 in. 61/2 in.	7 in. 8 in. 9 in. 11 in. 10% in.	1½ in. 1½ in. 2¾ in. 3½ in. 4 in. 4 in.	15 in. 1% in. 1% in. 1% in. 2 in. 2 in.	3½ in. 3½ in. 4% in. 5½ in. 5¾ in. 5% in.	3¼ in. 3¼ in. 5 in. 5½ in. 5¼ in. 6½ in.	25 lbs. 30 lbs. 40 lbs. 50 lbs. 65 lbs. 75 lbs.	Vagon Valet Victo Visit Varen Voxar	\$ 40.00 45.00 50.00 65.00 75.00 85.00
No. 7	24 in.	10 in.	20 in.	5 in.	2½ in.	8 in.	8 in.	100 lbs.	Vusel	125.00



Horizontal Vise Fixture

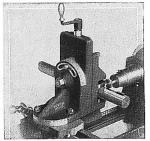
Vise Fixtures for Milling Attachment

Horizontal Vise Fixture. At left, riorizontal Vise Fixture. At left, the Milling Attachment fitted with a Vertical Adjustable Fixture to which is attached a Horizontal Angle Plate fitted with a Standard Vise. Prices include Vertical Fixture, Angle Plate and Vise.

NET	FACTORY	PRICES*

Size Lathe	Cat. No.	Code	Net Price
13 in.	1306	Vedal	\$46.50
15 in.	1307	Veget	47.50
16 in.	1308	Veltor	50.00
18 in	1310	Velum	55.00

*Above prices do not include the Milling and Keyway Cutting Attachment.

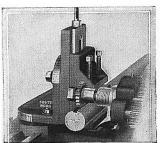


Milling a Woodruff Keyway

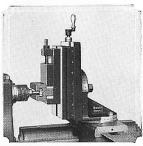
Vertical Vise Fixture. At right, Vertical vise Fixture. At fight, the Milling Attachment fitted with Vertical Adjustable Fixture and a Standard Vise. The prices below are for the Vertical Fixture and Vise, and do not include the Milling Attachment.

NET	FACTORY	PRICES*

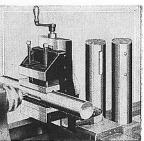
11	LITAU	0	
Size	Cat.	Code	Net
Lathe	No.	Word	Price
13 in.	1322	Vafer	\$43.50
15 in.	1323	Vaint	45.00
16 in.	1324	Vakid Vamne	47.50 52.50



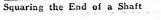
Milling a Standard Keyway



Vertical Vise Fixture

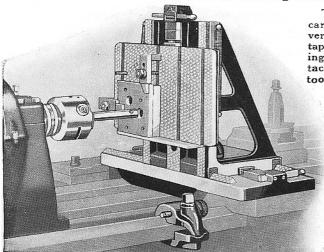


End-milling a Keyway in Shaft

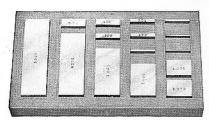


Jig Boring and Spacing Attachment for South Bend Lathes

For Use in Making Dies, Jigs, Tools, Fixtures, etc.



Boring a Jig Plate in the Jig Boring and Spacing Attachment Mounted on South Bend Lathe



Gage Blocks

A set of 15 Johansson A set of 17 Johansson Cage Blocks, as illus-trated, provides for all adjustments from 0 to the extreme limits of machine, without re-moving blocks while operating.

Cat. No. 268, Code Word, "Johan." Price. . \$118.50

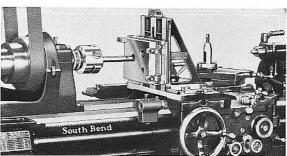
The Craley Jig Boring and Spacing Attachment is fitted to the carriage of the lathe as illustrated at left. It has horizontal and vertical adjustments controlled by gage blocks and by graduated taper wedges having a maximum adjustment of .050 inch, enabling the operator to get the most precise adjustments. This attachment will be found very valuable in making fine precision

Measuring System Used

The Gage Block Measuring System, such as the Johansson or Hoke, is used with this attachment. These systems are universally acknowledged as being the most accurate, and are the only methods accepted by those desiring absolute accuracy.

Cat. No. 50, Craley Jig Boring and Spacing Attachment for 16-inch South Bend Lathes, Code Word, "Craly." Price, F.O.B. South Bend.....\$225.00*

*This Attachment must be fitted to the lathe at the factory. Fitting to Lathe extra. Prices on application.



Boring Bar Head Shown in Illustration Is Not Included in Price of Attachment. Information on Request

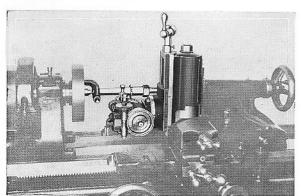
Gear Cutting Attachment for South Bend Lathes

For Cutting Small Gears and for Light Milling Work

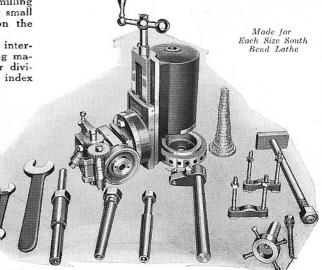
The Carrett Millerette Attachment is equipped with a milling machine dividing head which enables it to be used for cutting small gears and for milling small light work of various kinds on the screw cutting lathe.

The dividing head construction is based on the principle of interchangeable gears, the same as regularly used on gear cutting ma-chines. The index plate shows the proper gears to use for division from 2 to 360 and the number of turns required of the index

ver. Net	Factory	Prices of Ge	ear Cutting	Attachme	ent
Size of Lathe	Cat. No.	Travel of Down Slide	Shipping Weight	Code Word	Price, Complete
9 in.	260	6½ in.	45 lbs.	Hilot	\$160.00
11 in. 13 in.	261 262	6½ in. 6½ in.	45 lbs. 45 lbs.	Heles. Hamin	160.00
15 in.	263	7½ in.	60 lbs.	Hajim	175.00
16 in. 18 in.	264 265	7½ in. 9 in.	60 lbs. 100 lbs.	Helup Hineq	175.00 195.00
24 in.	266	9 in	100 lbs	Hifal	195.00



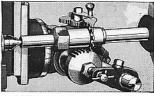
Attachment Mounted on Compound Rest of Lathe



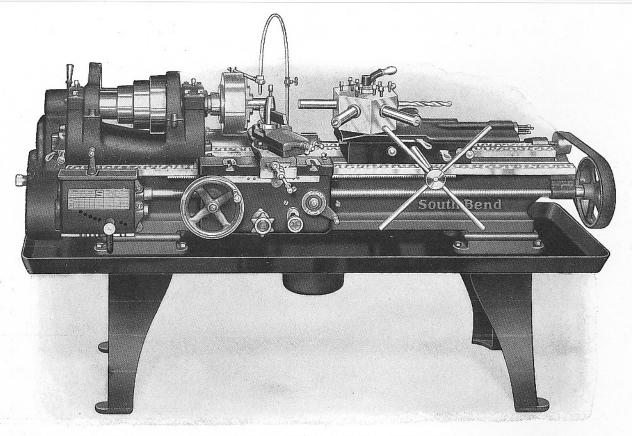
Millerette Attachment and the Equipment Included in Price

Variety of Uses

The Millerette Attachment for the lathe will cut gears of all kinds—Spur, Bevel and Angle. It will do graduating and milling, external key seating of all kinds, cutting at angles, splining, slot-ting and all regular dividing head, milling machine work.



Millerette Cutting a Gear



A New Model South Bend Lathe Equipped with Attachments and Tools for Production Work

The New Model Lathe Equipped for Manufacturing Work

With Chuck, Turnstile Bed Turret, Special Boring Tool, Oil Pan and Pump

Pressed Steel Oil Pan

The Steel Oil Pan is of heavy one-piece construction which is oil-tight. The pan requires lathe legs of a special construction and should be ordered with the lathe and fitted at factory. Prices below are for Oil Pan and Special Legs instead of regular legs.

Net Factory Prices Steel Oil Pan

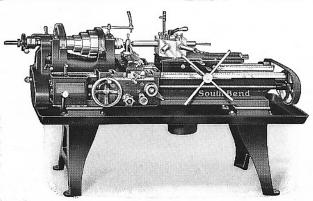
Size	Cat.									L.	E.	N	G	T	Ŧ	I	O	F	В	ΕI), 11	V	F	El	E'	ľ								
Lathe	No.	24	6	3	5	3	1/2	T	4		4	1/	3	1	5		5	1/2	Π	6	7	1	8	Ī	1()	12			1:	Į	1	16	;
9"	282	\$1	9	\$2	0	\$	21	1	\$2	2	\$	2:	3					٠.						1.			 				.,	-		
11"	284			2	5		26		Z					S	2	9	\$	30						1.			 		١.,					
13"	286								3	5			٠,		3	8			18	41	\$44	18	47	١.			 		١					
15"	288												٠.	١.	4	5	١.,		-	49	53	ľ.	57	18	•	55	 					١.		
16"	292																			50	55		60	Г	7	70	\$ 8	0	١,					
18"	294							١.			١,			١.			١			55	60		65	1	-	75	8	5	S	;	95	١.		
24"	296							١,						١.									88		10)4	12	0		1	36	18	815	52

Oil Pump, Reservoir and Pipe Fittings

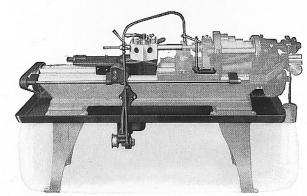
The illustrations below show a lathe equipped with Oil Pump, Reservoir and Piping. The Nozzle of the Flexible Steel Pipe is attached to a bracket mounted on the carriage of the lathe and travels with the lathe tool. A valve regulates the flow of liquid. The Reservoir is cast iron and bolts on the steel pan. A sieve above the reservoir strains the liquid and prevents chips from entering. A screw plug in the bottom provides drainage.

Net Factory Prices Pump, Reservoir and Fittings Complete

Size of Lathe	9 in.	11 in.	13 in.	15 in.	16 in.	18 in.	24 in.
Catalog No					1055		1058
Code Word	Habit	Hedge	Heron	Hopes	Huber	Hymen	Husub
Price, Complete.	\$35.00	\$35.00	\$40.00	\$40.00	\$45.00	\$45.00	\$50.00

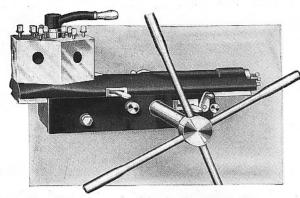


Front View of Lathe Equipped with Pump, Reservoir and Piping



Rear View of Lathe Equipped with Pump, Reservoir and Piping

Turrets and Tool Slides for Manufacturing Work



Semi-Automatic Turnstile Bed Turret

The Turnstile Bed Turret illustrated above is called Semi-Automatic because the turret revolves automatically one-sixth of a turn on the return stroke of each hand revolution of the turnstile. Adjustable stops are provided for each of the six faces of the turret for regulating the depth of each tool operation. The feed of the turret slide is controlled by turning the turnstile by hand. Power Feed to the turret slide is extra. Prices on request.

Net Factory Prices of Turnstile Bed Turrets

~ .	Standard	Clearance,	Maximum	TTT : 1 .		Price of	Turret
No.	Finish Bored	Hole to Top of Slide	Turret Feed	Each	Words	Not Fitted	Fitted*
413	1 in.	₹ in.	9 in.	200 lbs,	Felow	\$275.00	\$285.00
415	1 in.	11/2 in.	9 in.	225 lbs.	Fight	300.00	310.00
416	1 in.	1½ in.	9 in.	225 lbs.	Flown	305.00	315.00
418	1% in.	21/4 in.	12 in.	550 lbs.	Forts	350.00	360.00
424	2 in.	2% in.	15 in.	900 lbs.	Fudge	500.00	510.00
	413 415 416 418	Cat. Hole Size Finish Bored 413 1 in. 415 1 in. 416 1 in. 418 1¾ in.	Cat. No. Hole Size Finish Bored Center of Hole to Top of Slide 413 1 in. 415 1 in. 1½ in. 1½ in. 416 413 1 in. 1½ in. 418 1½ in. 1½ in. 2½ in. 2½ in. 2½ in.	Cat. No. Finish Hole to Top Bored Hole to Top of Slide Feed 413 1 in. Hi in. 1½ in. 9 in. 416 1 in. 1½ in. 9 in. 418 1¾ in. 2¼ in. 9 in. 12 in. 424 2 in. 2% in. 15 in.	Cat. No. Hole Size Finish Bored Center of Hole to Top of Slide Maximum Weight, Each Feed Weight, Each Side 413 1 in. 4½ in. 9 in. 225 lbs. 416 1 in. 1½ in. 9 in. 225 lbs. 225 lbs. 418 225 lbs. 225 lbs. 550 lbs. 424 418 1½ in. 2½ in. 12 in. 550 lbs. 424 2 in. 2½ in. 15 in, 900 lbs.	Cat. No. Hole Size Finish Bored Center of Hole to Top of Slide Maximum Weight, Each Words Code Feed 413 1 in. 4½ in. 9 in. 1½ in. 1½ in. 9 in. 225 lbs. Flown Half II. 1½ in. 9 in. 225 lbs. Flown Half II. 1½ in. 1½ in. 12 in. 550 lbs. Flown Half II. 1½ in. 12 in. 550 lbs. Flown Half II. 15 in. 900 lbs. Fudge	Cat. No. Hole Size Finish Bored Center of Hole to Top of Slide Maximum Weight, Each Code Each Not Fitted 413 1 in. 4½ in. 1½ in. 9 in. 225 lbs. Felow 1300.00 9 in. 225 lbs. Flown 300.00 \$275.00 416 1 in. 1½ in. 1½ in. 9 in. 225 lbs. Forts 350.00 9 in. 250 lbs. Forts 350.00

Hand Lever Bed Turret

The Semi-Automatic Hand Lever Bed Turret automatically indexes ½ of a turn by the backward movement of the hand lever. Adjustable stops are provided for each of the six faces of the turret for regulating the depth of each tool. The feed of the turret slide is controlled by the hand lever. Power feed cannot be supplied.

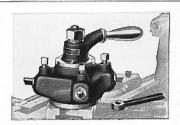
Prices of Semi-Automatic Bed Turret

Size of	Cat	Stand-	Length of	Max.	Code	Price o	f Turret
Lathe	No.	Turret Hole	Turret Base	Feed	Words	Not Fitted	Fitted*
9 in. 11 in. 13 in.	1511	% in. % in.	9½ in. 9½ in.	41/4 in.	Jaber Jenks	\$205.00 215.00 225.00	\$220.00 230.00

*Prices include special base and fitting to lathe bed. Finish boring of the six turret boles is \$6.00 extra.

The Six Holes in each Turnstile Bed Turret and Hand Lever Bed Turret are rough drilled, sufficient stock being left for finish boring. Turret Holes should be finish bored in the shop where the turret is to be operated so that the mechanic can bore the turret holes to fit the tools available.

Fitting Either Style Bed Turret to lathe consists of fitting the bottom of the turret slide to the "V" way and flat way of the lathe bed, so that the holes of the turret will be approximately concentric with the axis of the lathe spindle before finish boring.

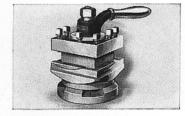


Four-Cornered Turret

The Four-Comered Tool Post Turret is clamped to the Compound Rest and carries four cutting tools. Bolt adjustment regulates height of tool. Three or four operations can be performed with one set up.

Prices of Four-Cornered Tool Post Turret;

Size of Lathe	Cat. No.	Takes Bits	Weight, Each	Price Without Bits	Bits Price, Each
13 in. 15 in.	1530 1531	in. sq.	30 lbs. 30 lbs.	\$ 60.00	\$0.35 .35
16 in. 18 in.	1532 1533	% in. sq.	40 lbs. 40 lbs.	85.00 85.00	.55 .55
24 in.	1529	is in. sq.	50 lbs.	100.00	.90

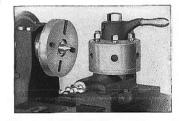


Four-Way Tool Post Turret

The Turret is bolted direct to the Compound Rest base. A rocker provides individual adjustment for the height of each cutting tool. Standard tool holders may be

Prices of Four-Way Tool Post Turretf

Size of Lathe	Cat. No.	Size of Turret Head	Maximum Size of Tool	Price, Each
13 in.	5230	5¼ in, sq.	1% in. x ½ in.	\$110.00
15 in.	5231	5¼ in, sq.	1% in. x ½ in.	
16 in,	5232	6½ in, sq.	1% in. x % in.	135.00
18 in.	5233	6½ in, sq.	1% in. x % in.	140.00
24 in,	5234	8 in, sq.	1% in. x % in.	175.00



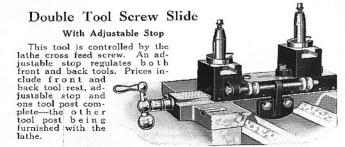
Round Tool Post Turret

This Turret, which clamps to the Compound Rest, has six holes which are swung into position by hand. Turret holes are rough drilled undersize in diameter.

Prices of Round Tool Post Turrett

Size of Lathe	Cat.	Diam. of Turret	Diam. of Hole	Price, Each
9 in.	9-10	4½ in.	¾ in, or less	\$65.00
11 in.	11-19	4 1/2 in.	¾ in. or less	65.00
13 in.	13-10	5 in.	% in, or less	75.00
15 in.	15-19	61/2 in.	11/4 in, or less	90.00
16 in.	16-16	61/2 in.	11% in, or less	90.09
18 in.	18-19	61/2 in.	1 % in. or less	90.00
24 in,	24-E	6% in.	114 in. or less	90.00

†NOTE-An extra charge of \$2.00 is made for fitting turret to Compound Rest. Finish boring six holes in Round Tool Post Turret \$6.00 extra.



Net Factory Prices of Double Tool Screw Slide

Size Lathe	9 in.	11 in.	13 in.	I5 in.	16 in.	18 in.
Cat. No	981	982	983	984	985	986
Code Word		Denis	Divot	Dobin	Drips	Ducts
Price, Each	\$35.00	\$40.00	\$45.00	\$50.00	\$55.00	\$60.00

Double Tool Slide

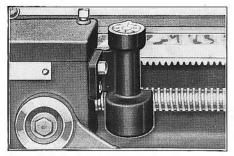
(Hand Lever Type) (Hand Lever Type)

The Double Tool Slide illustrated at the right is controlled by the Hand Lever. An adjustable stop regulates both front and back tools. Prices include front and back tool rest, adjustable stop and one tool post complete—the other tool post being furnished with the lathe.

Net Factory Prices of Double Tool Hand Lever Slide

Size Lathe	9 in.	11 in.	13 in.	15 in.	16 in.	18 in.
Cat. No	Daple	999-B	999-C	999-D	999-E	999-F
Code Word		Debit	Diced	Doles	Drain	Dufer
Price, Each		\$65.00	\$75.00	\$80.00	\$85.00	\$90.00

Thread Indicator for New Model South Bend Lathes



Thread Indicator Fitted to the Carriage of

The Thread Indicator eliminates the necessity of reversing the lathe to return the Carriage to the starting point to catch the thread at the beginning of each successive cut.

Shows Proper Position for Engaging Half Nuts

The Face of the Dial is numbered and graduated to show the exact time to clamp the Half Nuts on the Lead Screw for the next cut. When cutting even threads, the Half Nuts are closed at any graduation on the Dial and for odd threads at any numbered line on the Dial.

For pitches involving $\frac{1}{2}$ of a thread, such as $11\frac{1}{2}$ per inch, the Half Nuts are closed at any odd numbered graduation.

Net Factory Prices of Thread Indicator

Size of Lathe	9 in.	11 in.	13 in.	15 in.	16 in.	18 in.	24 in.
Catalog No	809	811	813	815	816	818	824
Code Word	Abaft	Acres	Advis	Aesop	Aflot	Agrol	Ajoin
Price, Each	\$8.00	\$8.00	\$10.00	\$10.00	\$12.00	\$12.00	\$14.00

Micrometer Carriage Stop for New Model South Bend Lathes

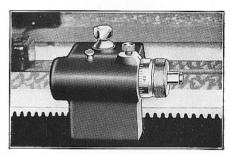
The Micrometer Carriage Stop, shown at right, is useful in manufacturing operations and tool room work in accurate facing. It can be used as either a permanent or adjustable stop. Special means are provided for clamping the Micrometer Carriage Stop to the front "V" of the lathe bed, so that it does not damage the hand-scraped surface.

Graduated Barrel

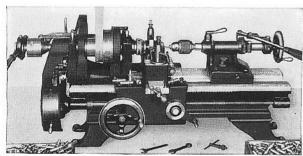
The revolving barrel is graduated on one end in thousandths of an inch and knurled on the other so that it can be rotated easily. The adjusting bar or stop is hardened on both ends and is provided with a lock so that the bar may be fastened at any point for duplicate work.

Net Factory Prices of Micrometer Carriage Stop

Size of Lathe	9 in.	11 in.	13 in.	15 în.	16 in.	18 in.	24 in.
Catalog No	971	972	973	974	975	976	979
Code Word	Calef	Ceded	Chain	Cigar	Climb	Coral	Cupal
Price, Each	\$10.00	\$12.00	\$13.00	\$14.00	\$15.00	\$17.00	\$22.00



Micrometer Carriage Stop Fitted to Lathe Bed as a Permanent or Adjustable Stop

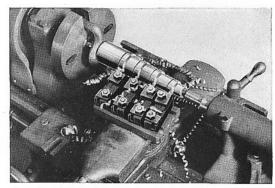


Lathe Equipped with Hand Lever Tailstock

Hand Lever Tailstock for 9", 11" and 13" Lathes*
A Practical Attachment for quantity centering and drilling. Prices are for Hand Lever Tailstock in lieu of regular tailstock. Attachment must be ordered with lathe.

Net Factory Prices of Hand Lever Tailstock

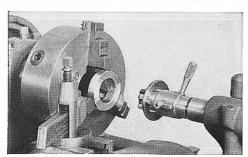
Size of Lathe	9 in.	11 in.	13 in.
Catalog No	900	901	902
Code Word	Jiden	Jilat	Jebot
Price	\$35.00	\$37.00	\$40.00



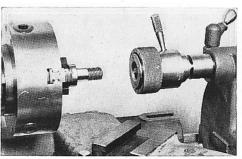
Four Turning Tools in Operation on South Bend Lathe

Multiple Tool Block for Lathe

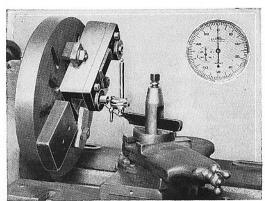
The illustration above shows four turning tools fitted on a tool block and used for machining four different diameters at the same time. Tool Blocks of various kinds may be made up for turning any number of diameters.



Collapsible Tap Used on Lathe Cutting an Internal Thread Using a Collapsible Tap



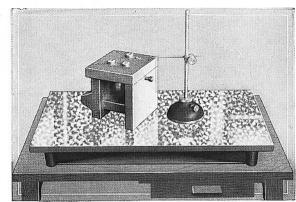
Self-Opening Die Head Used on Lathe A Self-Opening Die Head Used for Threading a Bolt



Locating Center for Boring a Bushing Hole

Dial Test Indicator

The Dial Test Indicator illustrated above is a convenient and accurate instrument for testing alignment of lathe centers, accuracy of machined surfaces and for locating centers.



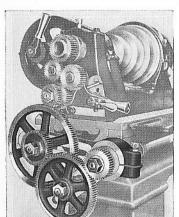
Surface Plate Used to Check Up Drill Jig

Accurately Finished Surface Plate

The Surface Plate is useful for laying out and checking a wide variety of work. It is also used for testing flat surfaces and for accurately surfacing parts.

Transposing Gear Attachment for Cutting Metric Threads

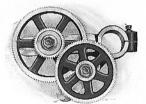
For All Sizes of South Bend Lathes Equipped with English Lead Screws



Transposing Gears Fitted to Lathe

The Transposing Gear Attachment for cutting Metric Threads on South Bend Lathes equipped with English Lead Screw is shown in the illustration at the left. This Attachment permits the lathe to be used for cutting the International Standard Metric Threads and French Standard Metric Threads. This Attachment is furnished for either Quick Change or Standard Change Gear Lathes.

The Attachment shown in the illustration is for the Standard Change Gear Lathe and consists of a bracket, to which is attached two Transposing Gears and an Idler Gear. The change gears shown are used for cutting the various Standard Metric Pitches as shown in the index chart. The prices below include the Attachment complete.



Transposing Gears and Bracket



Additional

Net	Factory	Prices	Metric	Transposing andard Chan	g Gear	Attach-
me	nt for Q	uick Ch	ange Sta	andard Chan	ge Gear	Lathe

~-	Q	uick Cl	iange	Standard Change			
Size Lathe	Cat. No.	Code Word	Price	Cat. No.	Code Word	Price	
9 in.	1435	Tanom	\$ 40.00	1442	Tibol	\$ 35.00	
II in.	1436	Tasid	45.00	1443	Tigem	40.00	
13 in.	1437	Tadus	50.00	1444	Tohis	45.00	
15 in.	1438	Tesol	55.00	1445	Tojar	50.00	
16 in.	1439	Texis	60.00	1446	Tokas	55.00	
18 in.	1440	Tegam	65.00	1447	Tolim	60.00	
24 in	1441	Timuk	110.00	1448	Tumod	100.00	

Standard Change Lathe

Metric Transposing Chart The Metric Transposing Chart shown at the right, is made of metal and is furnished with the Transposing Gear Attachment for South Bend Standard Change Gear Lathes equipped with English Lead Screw. The chart shows the various pitches of Metric Screw Threads which can be cut, also the correct change gears to use. The following Inter-national Standard Metric Pitches can be cut when using the Transposing Gear Attachment: .5, .75, 1., 1.25, 1.5, 1.75, 2., 2.5, 3., 3.5, 4., 4.5, 5., 5.5, 6., 6.5, 7., 7.5, 8. m/m pitch.

Pitches other than those shown on the chart may be obtained by the use of additional change gears.

STANDARD (METRIC TRAN FOR 13-15-16" LATHE	ISPOSING	CHART	Metric Transposing The Metric Transpos
M/M STUD PITCH CEAR 75 24 75 24 1.1 48 1.25 36 1.175 42 2.5 42 2.5 43 3.5 72 2.5 60 3.5 42 4.4 48 4.5 54 4.5 56 6.6 72 6.5 78 7.7 84 7.7 84 8. 96	COMP. 6EARS 127-50	SCHEW GEAR 80 BD	shown at the right, is metal and is furnished Transposing Gear A for South Bend Quic. Gear Lathes equipped lish Lead Screw. The classical the correct stud gear to gear box gear, plunger position of toplever. lowing International Metric Pitches can be using the Transposing tachment: .5, .75, 1, 1.75, 2, 2.5, 3, 3.5, 4, 5.5, 6, 6.5, 7, 7.5, 8.
SOUTH BEND SOUTH BE	LATHE Y	SONOR PROPERTY AND ADDRESS OF THE PARTY AND AD	Pitches other than thos the chart may be obtained

Quick Change Lathe Chart

sing Chart made of with the ttachment k Change with Enghart shows o use, the hole, and The fol-Standard cut when Gear At-1.25, 1.5, 4., 4.5, 5., n/m pitch.

the chart may be obtained by the use of additional change gears.

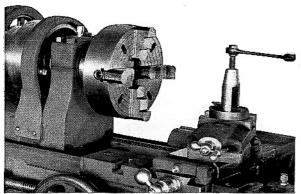
run i	3-15-16"	LATHES-	U.S.LEAD	SCREW
M/M PITCH	STUD	GR. BOX GEAR	PLUNGER	TOP
.5	72	40	6	LEFT
.75	72	40	1	LEFT
1.	72	40	6	RIGHT
1.25	60	40	1	RIGH"
1.5	72	40	1	RIGH
1.75	84	40	6	
2.5	72	40		CNT'S
	60	40	1	
3.	72	40	1	CNT'F
	84	20	1 B	RIGHT
4.	64	20		
4.5	81 6D	20	6	CNT
			1	CNTT
5.5	5D	20	1	CNT'F
6.	72 78	20 20	i	CNT'
7.	84	20	i	CNTT
7.5	90	20	1	CNTT
8.	96	20	1	CHT

South Bend Lathes with Metric Lead Screws

New Model South Bend Lathes, both Quick Change and Standard Change Gear types may be ordered from the fac-tory fitted with Metric Lead Screws and Metric Graduated Collars for cutting International Standard Metric Pitch Screw Threads. When ordering lathes to be equipped with Metric Lead Screws be sure to specify "Metric," otherwise South Bend Lathes are furnished with English Lead Screws.

South Bend Lathes equipped with Metric Lead Screws can be supplied with a special Transposing Gear Attachment for cutting English Threads. This Attachment is similar to the one illustrated.

Lathe Chucks for South Bend Lathes



Lathe Fitted with a 4-Jaw Independent Chuck

Practical Type of Chuck for the Lathe

If the lathe is to have one chuck, it should be an Independent Lathe Chuck with 4 reversible jaws, as this type will hold work of either round or irregular shape. If two chucks are to be fitted to the lathe, then a Universal Geared Scroll Chuck should be used in addition to the Independent 4-jaw reversible type. A Universal Geared Scroll Chuck is self-centering and enables the operator to handle round and hexagonal stock without losing time in truing up the work.

For information on the proper size chuck to use with your lathe see table below. Fitting charges are given on page 15.

Three-Jaw Universal Geared Scroll Chuck With Two Sets of Jaws (Iron Body)



ping work on the out-

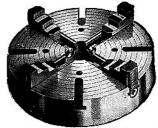
side—the No. 2 or Reverse Jaws for holding work internally. Prices appearing below include wrench, two complete sets of jaws and four cap screws for fastening chuck back to chuck.

Net Factory Prices Three-Jaw Universal Scroll Chuck

Cat. No.	Rated Size of Chuck	Will Hold About	Shipping Weight	Code Word	Price* Chuck
2403	3 in.	31/8 in,	3½ lbs.	Panel	\$ 25.00
2404	4 in.	41/4 in.	7½ lbs.	Paras	29.00
2405	5 in,	5 in.	11 lbs.	Parot	31.00
2406	6 in.	61% in.	20 lbs,	Pasto	35.00
2407	7½ in.	7½ in.	32 lbs.	Patri	41.00
2409	9 in.	9 in.	45 lbs.	Pedal	49.00
2410	10½ in.	10% in.	64 lbs.	Perag	55.00
2412	12 in.	12 in,	80 lbs.	Pensi	64.00
2415	15 in,	15 in.	143 lbs.	Perse	91.00
2418	18 in.	18 in,	180 lbs.	Perfu	119.00

Independent Lathe Chuck With Four Reversible Jaws (Iron Body)

This Chuck has four independent solid jaws of hardened steel with individual screw adjustment. The face of Chuck is ground true to a straight edge and is accurately graduated in inches. The jaws are reversible by running out at the edge and turning end for end. The screws have a heavy square thread their entire length, fitted to the bearing. All chucks are



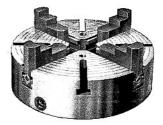
the bearing. All chucks are made with hardened steel bearings for the screws. "T"-slots are furnished only on chucks 12 inches and larger. Prices include wrench and four cap screws for fastening chuck back to chuck.

Net Factory Prices Independent Lathe Chuck

Cat. No.	Rated Size of Chuck	Will Hold About	Shipping Weight	Code Word	Price* Chuck
2104	4½ in,	6 in,	11 lbs.	Bawle	\$23.00
2106	6 in.	7½ in.	21 lbs.	Beach	28.00
2108	8 in.	91/2 in.	35 lbs.	Buzir	32.00
2109	9 in.	11½ in.	42 lbs.	Baito	35.00
2110	10 in.	121/2 in.	51 lbs.	Balda	40.00
2112	12 in.	14½ in.	90 lbs.	Baled	48.00
2114	14 in.	16½ in.	117 lbs.	Balks	52.00
2115	15 in.	18 in.	139 lbs.	Balmy	57.00
2116	16 in.	19 in.	147 lbs.	Bandu	62.00
2118	18 in.	21 in,	184 lbs.	Bankr	80.00

Combination Geared Scroll Chuck

With Four Reversible Jaws (Iron Body)



This improved Chuck is provided with independent, adjustable jaws which may be set as required for chucking round or irregular work, either in a concentric or in an eccentric position, and the Geared Scroll Jaw operating mechanism may be used to grip the work. It is not necessary to apply the wrench suc-

cessively in different positions around the Chuck in tightening, as any single application will give the full gripping power. "T"-slots are furnished only on chucks 9 inches and larger. The Combination Chuck is especially useful where a large variety of work is handled. Prices include wrench and cap screws for fastening chuck back to chuck.

Net Factory Prices Combination Geared Scroll Chuck

Cat. No.	Rated Size of Chuck	Will Hold About	Shipping Weight	Code Word	Price* Chuck
2504	4 in.	5% in.	12 lbs.	Faile	\$ 51,00
2506	6 in.	75% in.	22 lbs.	Fawno	64.00
2507	7½ in.	91/4 in.	39 lbs.	Fearu	78.00
2509	9 in,	11¼ in.	40 lbs.	Felta	85.00
2510	10½ in.	121/2 in.	65 lbs.	Fendi	93.00
2512	12 in.	14% in.	70 lbs.	Findr	107.00
2515	15 in,	171/2 in.	101 lbs.	Fishb	137.00
2518	18 in.	21 in.	126 lbs.	Folds	182.00

*NOTE—Chuck prices do not include Semi-machined Chuck Back or fitting chuck to lathe. For prices see page 15.

The Correct Sizes of Chucks for All Sizes and Types of South Bend Lathes

To assist those who wish to select the correct sizes of chucks for South Bend Lathes we list in the table at the right the sizes of chucks most practical for general work with each size lathe.

Size of Lathe	4-Jaw Independent Lathe Chuck		3-Jaw Universal Geared Scroll Chuck		4-Jaw Com Geared Scro		3-Jaw Drill Chuck	
	Recommended	Maximum	Recommended	Maximum	Recommended	Maximum	Recommended	Maximum
9 in. lathe 11 in. lathe 13 in. lathe 15 in. lathe 16 in. lathe 18 in. lathe	8 in. 9 in, 10 in. 12 in.	6 in. 8 in. 10 in. 12 in. 12 in. 14 in.	4 in. 5 in. 6 in. 7½ in. 9 in. 10½ in.	6 in. 7½ in. 9 in. 10½ in. 10½ in. 12 in.	6 in, 6 in. 7½ in. 10½ in, 10½ in. 12 in.	6 in. 7½ in. 9 in. 10½ in. 10½ in. 12 in.	½ in. ½ in. ¾ in. ¾ in. 1 in. 1 in.	% in. % in. % in. % in. 1 in. 1 in.
24 in. lathe	15 in.	18 in.	15 in.	18 in.	18 in.	18 in.	i in.	î i

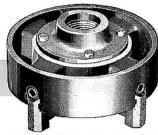
Fitting a Lathe Chuck to the Lathe

In order to mount a lathe chuck on the lathe the chuck must be fitted with a chuck back. Fitting a chuck to the lathe is a difficult job for the small shop, especially if the mechanic lacks the special equipment and tools needed for the work. When ordering your lathe we recommend that you order the chuck at the same time so that we can fit the chuck to the lathe in our factory. We have special machinery and tools for doing this work and have had years of experience in fitting chucks so that they will run true.

Semi-machined Chuck Back

The illustration shows a Semi-machined Cast Iron Chuck Back which has been bored, faced and threaded to fit the spindle nose of the Lathe. Sufficient stock is left on the diameter of the flange so that it can be machined to fit the recess on the back of the chuck.





Rear Side of Chuck

Chuck Back Fitted to Chuck and Spindle Nose of Lathe

Net Factory Prices of Semi-machined Chuck Backs-Also Fitting Chuck Back to Chuck and Lathe

Sizes of South Bend Lathes	9 in,	11 in.	13 in.	15 in.	16 in.	18 in.	24 in.
Prices of Semi-machined Chuck Back Code Word for Semi-machined Chuck Back Fitting Chuck Back to Chuck and to Lathe	\$4.00 Conat \$3.00	\$4.25 Cavor \$3.25	\$4.50 Cekam \$3.50	\$4.75 Cimer \$3.75	\$5.00 Clame \$4.00	\$5.50 Cuban \$4.50	\$8.00 Chemo \$7.00
Total for Semi-machined Chuck Back fitted to Chuck and to Lathe	\$7.00	\$7.50	\$8.00	\$8.50	\$9.00	\$10.00	\$15.00
fitted to Chuck and to Lathe	Efago	Eodar	Ender	Eldon	Eliza	Elsie	Ethel

Drill Chucks for South Bend Lathes

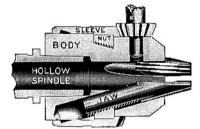


Three-Jaw Drill Chuck

The geared sleeve and key enable this drill chuck to be operated with one hand and provides a powerful grip. Prices include pinion key. Chuck arbor is not included in these prices.

Prices Three-Jaw Drill Chuck*

Cat. No.	Capacity	Code Word	Price
1200	0 to 3% in.	Cleve	\$ 5.00
1201	0 to 1/2 in.	Wauko	8.50
1202	1 to % in.	Falon	14.00
1203	36 to 1 in.	Frank	18.50



Hollow Spindle Chuck

This is an ideal chuck for holding small rods and bar work for machining in the lathe. It is not intended for holding drills. It can also be used for holding all kinds of engine valves, that are not centered, for refacing in the lathe.

Prices Hollow Spindle Chuck*

Cat. No	Capacity	Code Word	Price
1211	1/4-in.	Nedro	\$9.50
1212	%-in.	Nolan	9.50



Two-Jaw Drill Chuck

A strong, simple chuck for straight shank drills, taps, reamers, etc. Jaws are tempered steel and are operated by a heavy screw.

Prices Two-Jaw Drill Chuck*

Cat. No.	Capacity	Code Word	Price
1300	3% in.	Oblig	\$ 8.50
1301	½ in.	Objec	10.00
1302	% in.	Octav	11.50
1303	1 in.	Optio	15.00

*Drill Chuck Prices do not include Spindles or Arbors.

Finished Arbors, Solid and Hollow, for Drill Chucks



Drill Chuck Arbor

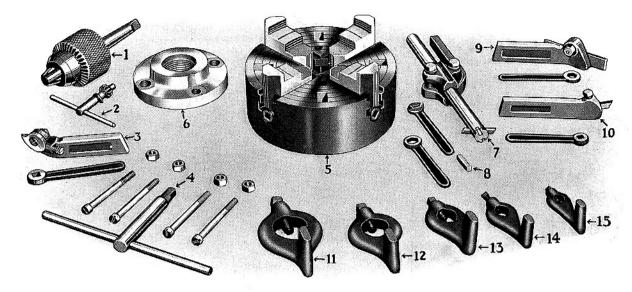
The steel Drill Chuck Arbor is used for fitting the Drill Chuck to the lathe. The short taper fits into socket of Drill Chuck and the long taper fits into the taper of either the headstock spindle or the tailstock spindle of the lathe.

When ordering Drill Chuck Arbor only, state size and make of Drill Chuck, diameter and depth of arbor socket, and size of lathe on which the chuck is to be used.

Net Factory Prices Finished Drill Chuck Arbors

Solid Arbor						Hollow	Arbor	
Size Lathe	Morse Taper	Cat, No.	Code Word	Price Arbor	Cat. No.	Morse Taper	Code Word	Price Arbor
9 in.	2	709	Abner	\$1.50	1223	3	Hilda	\$3.00
11 in.	2	709	Abner	1.50	1228	Special	Hoxal	4.00
13-15 in.	3	713	Adams	2.00	1223	3	Hilda	3.00
16-18 in.	3	716	Agate	2.00	1225	3	Hodge	3.00
24 in.	4	721	Along	3.50	1227	4	Hbrae	4.50

The Solid Arbor must be ordered for the Three-Jaw Drill Chuck and Two-Jaw Drill Chuck; and the Hollow Arbor for the Hollow Spindle Chuck as they are not interchangeable. Unless Arbor is ordered with chuck, a semi-finished Arbor, fitted to Lathe Spindle only and not machined to fit Drill Chuck, will be furnished.



No. 109 Chuck and Tool Assortment for 9-inch Lathes, Consisting of:

- 3-Jaw Drill Chuck with Arbor Attached Pinion Key for Drill Chuck Formed Threading Tool and Wrench Wrench and Cap Screws for Chuck 4-Jaw Independent Lathe Chuck

- Semi-Machined Chuck Back
 Style "B" Boring Tool and Wrenches
 High Speed Steel Cutter Bits
 Right Hand Patent Cutting-off Tool and Wrench
- Straight Shank Patent Turning Tool and Wrench
 11, 12, 13, 14 and 15, Are Malleable Lathe Dogs, 11/2", 11/4", 1", 3/4" and 1/2" capacity

Practical Chuck and Tool Assortments

An Assortment for Each Size and Type New Model South Bend Lathe

The Chuck and Tool Assortment illustrated above is the most practical size for use on the 9-inch New Model South Bend Lathe, for general machine work. These assortments represent the result of our 24 years of experience in equipping shops of various kinds.

We have specified the 4-Jaw Independent Lathe Chuck in some of the Assortments, but if much round work is to be done, then a 3-Jaw Universal Geared Chuck may be substituted. For information on chucks see pages 14 and 15.

No. 109 Assortment for 9-inch Lathes Junior, Quick Change and Standard Change Gear Types

150.51603. 160.005		-
Cat. No.	Description	Price
1 No. 2106	6-inch, 4-Jaw Independent Lathe Chuck	
	Fitting Chuck to Lathe, including Chuck Back	7.00
1 No. 1201	3-Jaw Drill Chuck, 1/2-inch capacity	8.50
1 No. 709	Drill Chuck Arbor, fitted to Chuck	
1 No. 849-S	Patent Turning Tool, straight shank	2.40
1 No. 865	Patent Threading Tool	3.75
1 No. 429	Patent Boring Tool, Style B	4.40
1 No. 881-R.	Patent Cutting-Off Tool (Right Hand)	2.60
1 Set (5)	Malleable Lathe Dogs, ½", ¾", 1", 1¼", 1½"	4.05
Net Factory	Price (Code Word Celot)\$	62.20

No. 111 Assortment for 11-inch Lathes Quick Change and Standard Change Gear Types

1 No. 2106	6-inch, 4-Jaw Independent Lathe Chuck	\$28.00
	Fitting Chuck to Lathe, including Chuck Back	7.50
1 No. 1201	3-Jaw Drill Chuck, 1/2-inch capacity	8.50
1 No. 709	Drill Chuck Arbor, fitted to Chuck	1.50
1 No. 851-S	Patent Turning Tool, straight shank	2.55
1 No. 866	Patent Threading Tool	3.75
1 No. 430	Patent Boring Tool, Style B	4.40
1 No. 822-R	Patent Cutting-Off Tool (Right Hand)	2.75
1 Set (5)	Malleable Lathe Dogs, ½", ¾", 1", 1¼", 1½"	4.05
Net Factory	Price (Code Word Denob)\$	63.00

No. 113 Assortment for 13-inch Lathes Quick Change and Standard Change Coar Tymes

Qui.	on change and Standard Change Gear Types	
1 No. 2108	8-inch, 4-Jaw Independent Lathe Chuck	\$32.00
	Fitting Chuck to Lathe, including Chuck Back	8.00
1 No. 1201	3-Jaw Drill Chuck, 1/2-inch capacity	8.50
1 No. 713	Drill Chuck Arbor, fitted to Chuck	2.00
1 No. 852-S	Patent Turning Tool, straight shank	3.00
1 No. 867	Patent Threading Tool	4.50
1 No. 431	Patent Boring Tool, Style B	5.25
1 No. 883-R.	Patent Cutting-Off Tool (Right Hand)	3.25
1 Set (5)	Malleable Lathe Dogs, 1/2", 3/4", 1", 11/2", 2"	4.45
Net Factory	Price (Code Word Enbal)\$	70.95

A practical Chuck and Tool Assortment for each size lathe is listed below. The parts in each Assortment are itemized so that the purchaser may add to or omit any tool not required for his work.

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

No. 115 Assortment for 15-inch Lathes Quick Change and Standard Change Gear Types

Price 9-inch, 4-Jaw Independent Lathe Chuck. \$35.00
Pitting Chuck to Lathe, including Chuck Back 8.50
2-Jaw Drill Chuck, 1-inch capacity 15.00
Patent Turning Tool, straight shank 3.00
Patent Turning Tool, straight shank 3.00
Patent Boring Tool, Style B 5.25
Patent Cutting-Off Tool (Right Hand) 3.25
Malleable Lathe Dogs, ½", ¾", 1", 1½", 2" 4.45
Patent Code World Carab) \$80.95 Cat. No 1 No. 2109 1 No. 713 1 No. 852-S 1 No. 867 1 No. 431 1 No. 883-R 1 Set (5)

No. 116 Assortment for 16-inch Lathes Quick Change and Standard Change Gear Types

1 No. 2110 1 No. 1303 1 No. 716 1 No. 853-S 1 No. 868 1 No. 432 1 No. 844-R 1 Set (5) Net Factory Price (Code Word Margo)......\$90.70

No. 118 Assortment for 18-inch Lathes

Quick Change and Standard Change Gear Types 1 No. 2112 1 No. 1303 1 No. 716 1 No. 853-S 1 No. 868 1 No. 432 1 No. 884-R I Set (5)

Patent Tool Holders for South Bend Lathes



Net Factory Prices of Turning Tools

Size	Size	Size	Cate	Price		
Lathe.	Shank.	Chetton	Straight	Right Hand	Left Hand	Com- plete
9	基x 税 ※x %	14 x 14	849-S 851-S	849-R 851-R	849-L 851-L	\$2.40
13, 15 16, 18	%x1%	Tax Ta	852-S 853-S	852-R 853-R	852-L 853-L	3.00
24	%x1%	76 X 76	854-S	854-R	854-L	4.85

Cutting-Off Tools Straight, Right and Left Hand Drop Forged Steel



Net Factory Prices of Cutting-Off Tools*

Size	Size	Size				Price Tool	Extra Cut-
Lathe, Inches	Shank, Inches	Cutter, Inches	Straight	Right Hand	Left Hand	Com- plete	ters, Each
9	岳x % %x %	最x % 最x %	881-S 882-S	881-R 882-R	881-L 882-L	\$2.60	\$0.55
13, 15 16, 18 24	%x1% %x1% %x1%	基x % %x % %x %	883-S 884-S 885-S	883-R 884-R 885-R	883-L 884-L	3.25 4.00	.80 1.15 2,00

Spring Cutting-Off Tool



Net Factory Prices of Spring Cutting-Off Tools*

Size	_ To	Tool Complete			Cutter	Blades
of Lathe, Inches	Cat. No.	Size of Shank, Inches	Price, Each	Cat. No.	Size of Cutter, Inches	Price, Each
9, 11 13, 15 16, 18 24	841 842 843 844	%x % 14x1% 5%x1% 14x1%	\$4.00 4.75 5.90 8.00	877-S 878-S 879-S 880-S	品x % %x % %x % 品x1	\$0.60 .80 1.15 2.00

Style "C" Boring Tool For Small Work



Net Factory Prices of Style "C" Boring Tool

	Too	Tool Complete			Extra Cutter Bits		
Size of Lathe, Inches	Cat. No.	Size of Shank, Inches	Price, Each	Cat. No.	Size of Cutter, Inches	Price, Each	
11	434	34x 34	\$3.75	459	1/4	\$0,20	
13, 15	435	1/2×1	4.75	460	14 14 14 14	.35 .55	
16, 18	436	%x114	6.10	461	34		
24	437	34 x 1 3/2	7.75	462	370	.90	

Formed Threading Tool



Size	1	Tool Co	Extra Cuttors			
of Lathe, Inches	Cat. No.	Size of Holder, Inches	Code Word	Price, Each	Cat. No.	Price, Each
9 11 13, 15 16, 18	865 866 867 868	5ax % %x % %x1% %x1%	Afrgt Aeshs Adtir Acujq	\$3.75 3.75 4.50 5.75	860 861 862 863	\$2.40 2.40 2.85 3.75
24	869	%x1%	Abykp	7.50	864	4.75

Spring Threading Tool



Price includes Hold-er with Head-less Cam, Lock Nut, finished high speed Steel Cutter and Hardened Wrened and H Wrench

Net Factory Prices of Spring Threading Tool

cu	To	Tool Complete			Extra Cutters			
Size of Lathe, Inches	Cat. No.	Size of Holder, Inches	Price, Each	Cat. No.	Cutter Size. Square	Price. Each		
11 13, 15 16, 18	873 874 875	%x % %x1% %x1%	\$3.75 4.50 5.75	870 871 872	1/4 5 14 3/8	\$0.40 .50 .65		

Knurling Tool



Price includes Holder and one set of Knurls, coarse, mediam, or fine, in either Straight Line or Diamond pattern.

Net Factory Prices of Knurling Tool

cu.	Tool Complete			Extra Knurls				
Size of Lathe.	Cat.	Size	Price,	Çat.		nensio trls. It		Price.
Inches	No.	Shank, Inches	Each	No.	Dia.	Face	Holo	Each
9	891	5 X 1/4	\$5.10	886	% 54	16 16	n'a	\$0.90
13, 15	892	%x1%	5.50 6 00	887 888	3/4	1/4	1/4 1/4 1/4	1.00
16, 18 24	894 895	%x1% %x1%	7.25	889 890	%%或光光	1/4	1/4	1.00

Style "B" Boring Tool For Medium Work



Made of Drop Forged Steel. Price in cludes Holder, Bar, one End Cap, two Cutters, and two Wrenches. Wrenches.

Boring Tool Net Factory Prices of Style Extra Cutter Bits Tool Complete Size Size Size of Lathe, Inches Price, Each Cat. of Holder, Cutter, Inches Inches %x % %x % ½x1% %x1% %x1% \$0.15 $\frac{430}{431}$ 4.40 5.25 15 18 $\frac{16}{24}$

High Speed Steel Cutter Bits for Turning Tools Ground to Shape

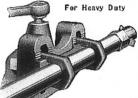


D Left Hand Side Tool Agkos A B C Left Round Right Nose Hand Turning Turning Turning Tool Tool Tool 'Adhlp' Adhmq' Afjur' Hand Side Tool "Aimqu" ing Tool "Ahlpt" Use Code Words above to indicate shape wanted.

Cutter Bit not ground to shape.

Net	Factor	Prices	OI H	ign Speed	Gutter	DIES
	Size.	Length	Groun	d Bits	Ungrout	d Bits
Cat. No.	Square Inches		Price, Each	Price of Set	Cat. No.	Price, Each
1304 1311	1/4	21/4	\$0.25 .30	\$1.50	1419 1421	\$0.15
1313 1316	14 A	21/4 21/2 3	.45	2.70 3.90	$\frac{1422}{1423}$.35 .55
1321	170	31/2	1.00	6.00	1424	.90

Style "A" Boring Tool



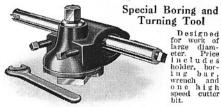
Cutter bit is adjustable a n d m ay be so t either straight or at a 45-degree angle.

Price includes Holder, Boring Bar, Wrench and one High Speed Steel Cutter Bit.

Designed or work of

Prices of Style "A" Boring Tool

Size	Te	Tool Complete			Extra Cutter Bits		
of Lathe, Inches	Cat. No.	Size of Shank, Inches	Price, Each	Cat. No.	Size of Cutter, Inches	Price, Each	
13, 15 16, 18 24	426 427 428	%x1% %x2 %x24	\$ 6.50 8.50 10.25	451 452 453	16 1/8 1/6	\$0.35 .55	



To	ol Compl	ete	Extr	a Cutter	Bîtş
Cat. No.	Dia. of Bar, Inches	Price, Each	Cat. No.	Size of Cutter, Inches	Price Each
469	- 34	\$12.00	474	30	\$0.25
471	11/4			28	1.00
472	11/2	22.00	477	1/2	1.10
490	1 1/2			1/2	1.10
464-A 465-A	1 1/2	23.00 29.00	479 480	1/2	1.60
	Cat. No. 469 470 471 472 473 490 464-A	Cat. No. Dia. of Bar, Inches 469 34 470 1 471 134 472 134 473 134 490 134 490 134 490 134	No. Bar, Each 169 469 470 114,00 471 114, 8,00 472 114, 22,00 473 114, 23,00 490 114, 24,00 490 114, 24,00 490 114, 24,00	Cat. No. Bar, Price. Cat. Each No. Inches Cat. Each No. Ca	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$

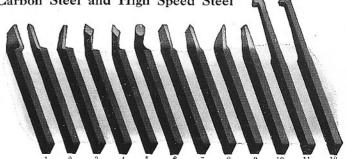
*Prices of Turning Tools, Cutting-off Tools and Spring Cutting-off Tool include Wrench and one High Speed Cutter Bit or Blade. Hand Forged Lathe Tools—Carbon Steel and High Speed Steel

Properly forged to shape, Properly forged to shape, tempered and g ro u n d. Ready for use. If ordering less than one complete set, be sure to state both the tool number and set num-ber.

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

Net Factory Prices of Hand Forged Lathe Tools

			Carb	on Steel	1		High Speed Steel			
Size	Size	Cat.	Price.	Set	of 12	Cat.	Price.	Set	of 12 ·	
Lathe, Inches	Shank, Inches	No.	Each	Code Word	de Deise No. I	Each	Codo Word	Price		
9 11 13 15 16, 18 24	5x % %x % %x1 %x1 %x1 %x1%	438-C 439-C 440-C 443-C 441-C 442-C		Jaelo Jbaux Jcein Jdolw Jerov Jflat	\$ 7.00 8.00 14.00 19.00 23.00 35.00	438-HS 439-HS 440-HS 443-HS 441-HS 442-HS	\$ 2.00 2.80 4.20 5.85 7.20 14.40	Jgher Jhrix Jipuv Jkoep Jleap Jmixd	\$ 20.00 32.00 50.00 70.00 85.00 170.00	



Miscellaneous Tools and Attachments

Hard Maple Benches

For All Types of 9 and 11-inch Bench Lathes



Hard Maple Bench with Drawer
This bench may be used with all types of 9-inch and 11-inch bench lathes, countershaft drive and motor drive patterns.
The bench illustrated above is made of fine quality hard maple with mortise and tenon construction throughout. It is finished in natural wood color with two coats of shellac. One drawer is provided for tools. Benches are shipped knocked down to save freight charges. Bolts are furnished for assembling bench. If you wish to make your own bench, we will supply the blue prints of benches, free of charge with the lathe. 54-inch bench is furnished without center leg. nished without center leg.

Specifications and Prices of Benches

Length Bench Top	Width Bench Top	Thickness Bench Top	For Lathes With Bed Lengths of	Code Word	Cat. No.	Price
54 in.	32 in.	1½ in.	21/2, 3, 31/2	Cakes	128-X	\$45.00
72 in.	32 in.	11/2 in.	4, 41/2, 5	Cedar	128-A	50.00
60 in.	*40 in.	11/2 in.	21/2, 3, 31/2, 4	Check	128-H	55.00
72 in.	*40 in.	1½ in.	41/2, 5	Cords	128-J	60.00
96 in.	*40 in.	1½ in.	51/2	Color	128-G	80.00

*Benches with top 40 inches wide required for 11-inch Self-Contained, Horizontal and Combination Motor Driven Lathes.

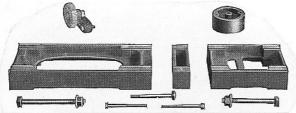
Countershaft Standards for Simplex Motor Drive Bench Lathes

The Countershaft Standards illustrated are used to support the Maple Cross Board. These Standards are painted glossy black and are drilled ready to mount on bench.



Cross Board

Raising Blocks for South Bend Lathes



Raising Blocks can be supplied for straight bed and Gap Bed Lathes in Quick Change and Standard Change Gear Types to increase the swing of lathe. The Silent Chain Motor Driven Lathe can not be fitted with Raising Blocks. The Quick Change Gear Lathe, equipped with Raising Blocks, requires a special gear guard, prices of which will be supplied on request.

Prices of Raising Blocks for Straight and Gap Bed Lathes

Straight Bed Lathes				Quick	cks for Change Lathes	ange Standard Char	
Swing Over Bed	Swing Over Bed with Raising Blocks	Swing Over Gap	Swing Over Gap with Raising Blocks	Cat. No.	Price	Cat. No.	Price
9¼ in.	12 in.			1121	\$ 35.00	1001	\$ 30.00
111/4 in.	14 in.	16 in.	19 in.	1122	41.00	1002	35.00
131/4 in.	18 in.	19 in.	24 in,	1123	60.00	1003	50.00
151/4 in.	20 in.	22 in.	27 in.	1124	72.00	1004	60.00
161/4 in.	22 in.	24 in.	30 in.	1125	84.00	1005	70.00
181/4 in.	24 in.	26 in.	32 in.	1126	96.00	1006	80.00
241/4 in.	30 in.	36 in.	42 in.	1128	150.00	1008	125.00

Extra Equipment for 9-inch Junior Lathes







No.	130	Follower Rest, Code Word "Culve," Price\$	6.00
No.	67	Threading Stop, Code Word "Cobra." Price	2.50
No.	40	Large Face Plate, Code Word "Cryed." Price	10.00
No.	125	Center Rest, Code Word "Clift." Price	10.00

Double Bracket for 9-inch Lathes



With the double bracket illustrated at the left it is possible to cut a greater variety of finer pitch threads than can be cut with the Standard Change Gear Equipment supplied with the 9-inch Lathes. Gears for cutting special threads can be supplied. Information on request request.
No. 1050, Code Word "Fames."
Price\$15.00

Center Gauge, No. 650

For testing the angle of 60-degree lathe centers. Also used in setting threading tools for cutting 60-degree "V" or U. S. Standard screw threads.

No. 650, Center Gauge for Testing 60-degree Lathe Centers, Code Word, Xutje.

Net Factory Price, Each...\$0.50



No. 650

Hand Rest for Wood Turning

For irregular work and pattern making. The hand rest clamps directly to the ways of the bed. Price includes hand rest complete with two "T" rests and clamp for attaching.

Net Factory Prices of Hand Rest for Wood Turning

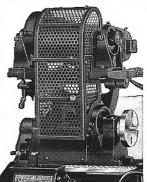
Size Lathe	Cat. No.	Code Word	Price	
9 in.	1071	Vanda	\$10.50	
II in.	1072	Vapor	10.50	
13 in.	1073	Varie	11.00	
15 in.	1074	Venom	11.50	
16 in.	1075	Vetix	12.00	
18 in.	1076	Views	13.00	

Belt Guard for Motor Driven Lathes

The Special Safety Belt Guard shown at the right can be furnished on Silent Chain Motor Driven Lathes, 9-inch to 18-inch inclusive, as additional equipment. The guard completely covers the driving cone, belting, and spindle cone, and complies with state laws and safety codes requiring enclosed belts. It is especially desirable for use in shops where inexperienced operators are employed.

Net Factory Prices of Belt Guard

Size of Lathe	Cat. No.	Code Word	Price, Each
9 in.	590	Kelat	\$12.00
11 in.	591	Keros	13.50
13 in.	592	Korid	15.00
15 in.	593	Kurey	18.00
16 in.	594	Kimet	18.00
18 in.	595	Kajot	22.00



Lathe Dogs, Centers and Milling Cutters

Standard Lathe Dogs



We furnish Lathe Dogs in two types, Standard and Safety. They are made of heavy malleable from and are properly designed for strength and service. The Standard Lathe Dog has hardened steel set screw. The Safety Dog has headless set screw, and is furnished with wrench.

Net Factory Prices Standard and Safety Lathe Dogs

Capacity		rd Lathe ogs	Safety Lathe Dogs		
Lathe	Cat.	Price,	Cat.	Price,	
Dog	No.	Each	No.	Each	
% in.	1-M	\$0.50	1-MH	\$0.60	
½ in,	2-M	.60	2-MH	.70	
¾ in.	4-M	.70	4-MH	.85	
1 in,	6-M	.80	6-MH	1.00	
1¼ in.	8-M	.90	8-MH	1.10	
1½ in.	10-M	1.05	10-MH	1.25	
1% in.	11-M	1.15	11-MH	1.40	
2 in.	12-M	1.30	12-MH	1.55	
2% in.	14-M	1.50	14-MH	1.85	
3 in.	15-M	1.65	15-MH	2.10	
3½ in.	16-M	1.85	16-MH	2.25	
4 in.	17-M	2.15	17-MH	2.60	



Clamp Lathe Dogs

Mado of heavy drop forged steel, carefully machined and hardened. Very practical for holding rectangular work. Each dog is boxed sep-arately.

Net Factory Prices

	Capacity	Clamp Dog	Extra Screws
Cat. No.	Between Screws	Price, Each	Price, Each
160	1% in.	\$3.00	\$0.20
161 162	2¼ in. 2¾ in.	4.00 5.00	.30
163	3½ in.	7.00	.60

Pipe Centers for Lathes



For machining pipes in the lathe, Taper Shank "A" fits within the head or taper spindle of the lathe. The Conical Dies "B," "C" and "D" revolve on the short shoulder of Taper Shank "A." Prices of larger discs on request.

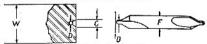
Net Factory Prices

ITEM	Cat. No.	Price, Each
Taper Shank "A" for 9", 11" lathes	910-B	\$ 3.00
Taper Shank "A" for 13", 15" lathes	910-C	4.00
Taper Shank "A" for 16", 18" lathes	910-E	4.50
Taper Shank "A" for 24" lathes	910-H	6.00
Disc "B" takes from "4" to 3" pipe	911-B	6.00
Disc "C" takes from 3" to 5" pipe	912-C	9.00
Disc "D" takes from 5" to 8" pipe	913-D	15.00

Combination Center Drill and Countersink



For drilling center hole and countersinking 60 degree angle for lathe center. Made of carbon tool steel, hardened and ground. Table shows correct size center drill for various sizes of work.



Net	Factory	Prices
-----	---------	--------

Cat. No.	Diam. of Work	Diam. of Count- ersink "C"		Body of Drill "F"	Price, Each	Price per Doz.
898-A	%" to %"	1/4 in.	in.	福 in.	\$0.25	\$2.25
898-B		å in.	a in.	fo in.	30	2.75
898-C	114" to 2"	1/4 in.	1/2 in.		.30	2.75
898-D	214" to 4"	is in.	5 in,	表 in.	.40	3.50

60 Degree Head Spindle Lathe Center



Made of tool steel, accurately ground all over. For se in headstock spindle of the lathe. Not hardened.

Net Factory Prices			
Size of	Cat.	Code	Price,
Lathe	No.	Word	Each
9 in.	725-A	Abest	\$2.00
11 in.	725-B	Actor	2.25
13 in.	725-C	Aders	2.75
15 in.	725-D	Aegan	2.75
16 in.	725-E	Afire	2.75
18 in.	725-F	Agoem	2.75
24 in.	725-H	Alosi	3.50

60 Degree Tail Spindle Lathe Center



Made of tool steel, hardened and ground all over. For use in tailstock spindle of the lathe.

Net Factory Prices

Size of Lathe	Cat. No.	Code Word	Price Each
9 in.	726-A	Caten	\$2.25
11 in.	726-B	Ceila	2.50
13 in.	726-C	Cheat	3.00
15 in. 16 in.	726-D 726-16	Ciena Clase	3.00 3.00
18 in.	726-F	Cotin	3.00
24 in.	726-H	Cubes	3.75

Spur	Center
D) MA	Courter

Spur Genter	Size of Lathe	Cat. No.	Pric
	9 in. 11 in. 13 in. 15 in. 16 in. 18 in.	732-A 732-B 732-C 732-D 732-E 732-F	\$3.00 3.00 4.00 4.00 4.00 4.0

Cup Center

Cat. No.	Net Price
733-A	\$3.00
	3.00 4.00
733-D	4.00
	4.00
	733-A 733-B 733-C







Screw Center

Net	Cat.	Size of
Price	No.	Lathe
\$3.50	731-A	9 in,
3.50	731-B	11 in.
4.00	731-C	13 in.
4.00	731-D	15 in,
4.00	731-E	16 in.
	731-C 731-D	13 in. 15 in.



9 in. 11 in. 13 in. 15 in. 16 in. 18 in.

Cat. No.

728-A 728-B 728-C 728-D 728-E 728-F

Net Price

\$3.00 3.00 4.00 4.00 4.00 4.00

Drill Pad



Size of	Cat.	Net
Lathe	No.	Price
9 in.	727-A	\$3.00
Il in.	727-B	3.00
13 in. 15 in.	727-C 727-D	4.00
16 in.	727-IS	4.00
10 :	707 TO	4.00

Morse Taper Sleeve



Made of steel and machined to Morse Standard Taper Gauges. Used in fitting small tapers to large sockets and vice versa. Net Factory Prices

Cat. No.	Size Morse Taper	Taper of Bore	Outside Taper	Price, Each
118-A	No. 1 to 2	No. 1 Morse	No. 2 Morse	\$0.90
118-B	No. 1 to 3	No. 1 Morse	No. 3 Morse	1.20
118-C	No. 1 to 4	No. 1 Morse	No. 4 Morse	1.50
118-D	No. 2 to 3	No. 2 Morse	No. 3 Morse	1.20
118-E	No. 2 to 4	No. 2 Morse	No. 4 Morse	1.50
118-F	No. 3 to 4	No. 3 Morse	No. 4 Morse	1.50

Side Milling Cutters

Made of High Speed steel, properly hardened and ground. Will cut on face and either side. All cutters have 1-inch hole and standard keyway.

Net Factory Prices Side Milling Cutters



Spiral End Mills



Made of High
Speed steel, hardened and ground.
Morse Standard
Taper Shanks. RightHand Mill only furnished

Net Factory Prices of Spiral End Mills

		Taper	Price.		Diam. of Mill		
868-B	2 in.	No. 2 No. 2	4.60	870-A 870-B	% in,	No. 3 No. 3	6.20
868-E	in.	No. 2 No. 2 No. 2	4.60		1 in. 1¼ in. 1¼ in.		6.20 7.10 8.25



Cat. No.	Diam.	Width	Price, Each	Cat. No.	Diam.	Width	Price, Each
897-A	1/2 in.	i in.	\$1.80	897-I	1 in	1/4 in.	\$3,60
897-B	1/2 in.	1/s in.	1.80	897-J	1 in	ar in.	3.60
897-C	% in.	1/8 in.	2.10	897-K	11/4 in	i in.	4.00
897-D	34 in.	1/8 in.	2.50	897-L	11% in	14 in.	4.00
897-E	% in.	d in.	2.50	897-M	11% in	A in.	4.00
897-F	% in.	in in.	2.75			in in.	4.50
897-G	% in,	1/4 in.		897-0	114 in	14 in.	4.50
897-H	1 in.	ia in.	3,60	897-P	11¼ in	% in.	4.50

Arbor for Side and Plain Milling Cutters



Size of	Cat.	Morse	Price.	Size of	Cat.	Morse	Price.
Lathe	No.	Taper	Each	Lathe	No.	Taper	Each
9 in.	109	No. 3 Special	\$9.00	15 in.	115	No. 3	\$ 9.00
11 in.	111	Special	9.00	16 in.	116	No. 3	10.00
13 in.	113	No. 3	9.00	18 in.	118	No. 3	10.00

Plain Milling Cutters

Made of High Speed steel, properly hardened and ground. Will cut on face only. All cutters have 1-inch hole and standard keyway.

Net Factory Prices of Plain Milling Cutters



Cat. No.	of Face	eter of Cutter	eter of Hole	Price, Each
849-A 849-B	指 in. ¼ in.	2½ in. 2½ in.	l in.	\$3.25 3.50
849-C	ar in.	2½ in.	1 in.	3.75
849-D 849-E	雅 in. 器 in.	2½ in. 2½ in.	l in.	4.00 4.25
849-F 849-G	½ in. % in. % in.	2½ in. 2½ in.	1 in.	4.50 4.80
849-H 849-I	% in.	2½ in. 2½ in.	1 in.	5.40
849-K	1" in.	21/2 in.	1 in.	6.50

Special Collet Chuck for Woodruff Cutters

The Collet Chuck holds Woodruff Milling Cutters ith straight shank ½ inch in diameter. Taper Shank fits head spindle of lathe. Cutter is not included in price of arbor.



Prices of Collet Chuck for Woodruff Cutters

Size of Lathe	Cat. No.	Price, Each	Size of Lathe	Cat. No.	Price, Each
9 in.	101	\$8.00	15 in.	104	\$8.00
11 in,	102	8 00	16 in.	105	8.00
13 in.	103	8.00	18 in.	106	8,00

More Than 48,000 South Bend Lathes Now in Operation

In the Leading Industrial Plants and Shops of the United States and 78 Other Countries

Attachments Shown in this Bulletin are made for all sizes and types of New Model South Bend Lathes. These Attachments can be ordered fitted to the lathe in our factory, or many of them can be ordered later and you can fit them to the lathe in use in your shop. When ordering an attachment for a South Bend Lathe already installed, specify the size of lathe, also give the serial number.

Many of the Attachments listed are designed for use on South Bend Lathes only. The basic dimensions of lathes of other makes differ so that most of these attachments can be fitted only to South Bend Lathes.

For Production. These attachments equip the New Model South Bend Lathe for manufacturing and production work on which the greatest accuracy and efficiency are required.

Micrometer Graduated Parts. The attachments and tools shown in this bulletin, having micrometer graduated parts, will be furnished with graduations reading in fractions of an inch. South Bend Lathes ordered with metric lead screw can be furnished with these same attachments but with graduations reading in the metric system.

Net Factory Prices. The prices shown in this bulletin are net f.o.b. South Bend, Indiana.

History. The South Bend Lathe Works was established in South Bend, Indiana, in 1906, and for twenty-four (24) years has been devoted entirely to the building of South Bend Lathes.

The Factory of the South Bend Lathe Works represents an investment of over \$2,000,000. The entire plant covers more than four acres, with a total floor space of 180,000 square feet. Production capacity, 5,000 lathes yearly.

96 Sizes and Types of South Bend Lathes QUICK CHANGE AND STANDARD CHANGE GEAR TYPES Net Factory Prices F.O.B. South Bend, Ind.

Swing Over	Length of	Approx. Weight		Change ar	Standard Ge	l Change ar
Bed	Bed	Crated	Cat. No.		Cat. No.	
Inches	Feet	Pounds	of Lathe	Price	of Lathe	Price
	5	-inch Ju	nior Lathe	with Ben	ch Legs	
91/4	3	375	102	200	22-YB	\$ 169.00
91/4	31/2	400	Not	Not	22-ZB	175.0
91/4	4	425	Made	Made	22-AB	182.0
91/4	41/2	450			22-RB	190.0
9-	inch Qu	ick Chan	Unipersity - comments	andard Cha		Lathes
91/4	3	490	80-Y	\$ 294.00	30-Y	249.0
91/4	31/2	510	80-Z	300.00	30-Z	255.0
91/4	4	530	80-A	307.00	30-A	262.0
91/4	41/2	550	80-R	315.00	30-R	270.0
11-	inch Qu	ick Chan	ge and St	andard Cha	ange Gear	Lathes
111/4	31/2	700	84-Z	352.00	33-Z	302.0
111/4	4	725	84-A	359.00	33-A	309.0
111/4	ò	805	84-B	375.00	33-B	325.0
13-	inch Qu	ick Char	ige and St	andard Ch	ange Gear	Lathes
131/4	5	1110	86-B	443.00	35-B	383.0
131/4	6	1160	86-C	458.00	35-C	398.0
131/4	7	1210	86-D	475.00	35-D	415.0
15-	inch Qu	ick Chan	ge and St	tandard Ch	ange Gear	Lathes
151/4	5	1475	88-B	525.00	39-B	450.0
151/4	6	1550	88-C	543.00	39-C	468.0
151/4	7	1625	88-D	561.00	39-D	486.0
151/4	8	1735	88-E	581.00	39-E	506.0
16-	inch Qu	ick Char	ige and St	tandard Ch	ange Gear	Lathes
161/4	6	1875	92-C	598.00	41-C	518.0
161/4	7	1955	92-D	618.00	41-D	538.0
161/4	8	2035	92-E	638.00	41-E	558.0
161/4	10	2195	92-G	682.00	41-G	602.0
18-	inch Qu		ge and St	andard Cha		Lathes
181/4	8	2640	94-E	763.00	43-E	673.0
181/4	10	2840	94-G	817.00	43- G	727.0
181/4	12	3140	94-H	895.00	43-H	805.0
24-	inch Qu	iick Chan	ge and St	tandard Ch		Lathes
241/4	8	4490	98-E	1370.00	57-E	1250.0
241/4	10	4740	98-G	1450.00	57-G	1330.0
241/4	12	5140	98-H	1555.00	57-H	1435.0

Lathe Catalog and Bulletins for the Mechanic

Catalog No. 91-A

General Catalog No. 91-A illustrates, describes and prices the entire line of New Model South Bend Back Geared Screw Cutting Lathes from 9-inch swing to 18-inch swing, countershaft and motor drive types. Each size of lathe is fully described with its features and specifications.

A full line of Attachments, Chucks, Tools and Accessories for use on South Bend Lathes is also

Mailed Anywhere in the World, Postpaid, No Charge



Lathe Bulletins

Special Bulletins printed in attractive colors are available for each size New Model South Bend Lathe. These bulletins show large illustrations and describe in detail each lathe in its various types and drives; also the correct tools and attachments for use with the lathe.

If interested in any particular size of lathe write for bulletin, specifying size of lathe.

Mailed Anywhere in the World, Postpaid, No Charge



