

Foot Power  
**LATHES**

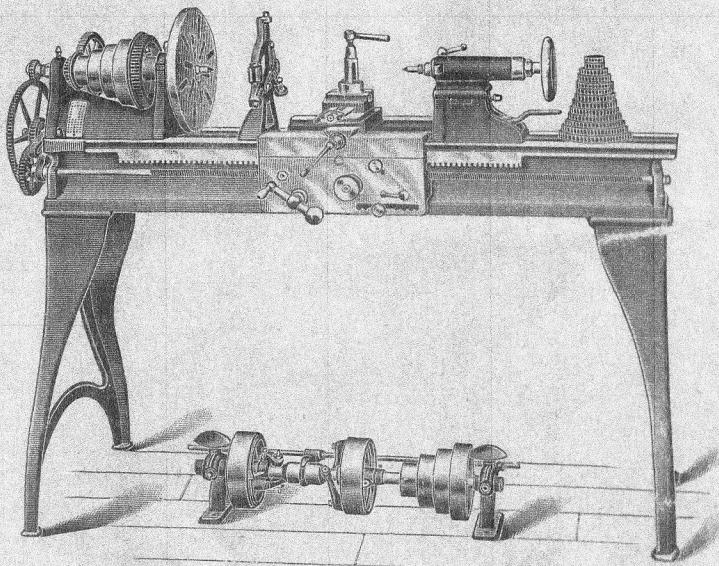
MANUFACTURED BY

*W. F. & John Barnes Co.*  
ROCKFORD, ILLINOIS,  
U.S.A.

*The "Barnes" Lathes*



Catalogue No. 65



*The "Barnes" Lathes*

Telegraphic Address,  
"BARNES" ROCKFORD.

Codes Used,  
LIEBER'S AND OUR OWN.

## CATALOGUE No 65.

January 1, 1907

(6th Edition March 20, 1912)

**I**N addition to the machines described in this Catalogue we make a very complete line of Upright Drilling Machines for power use only.

We also make a complete line of Foot and Hand Power Wood Working Machinery, embracing Circular Saws, Scroll Saws, Mortising, Tenoning and Moulding Machines, Lathes, etc., and we shall be pleased to mail catalogue describing same upon application.

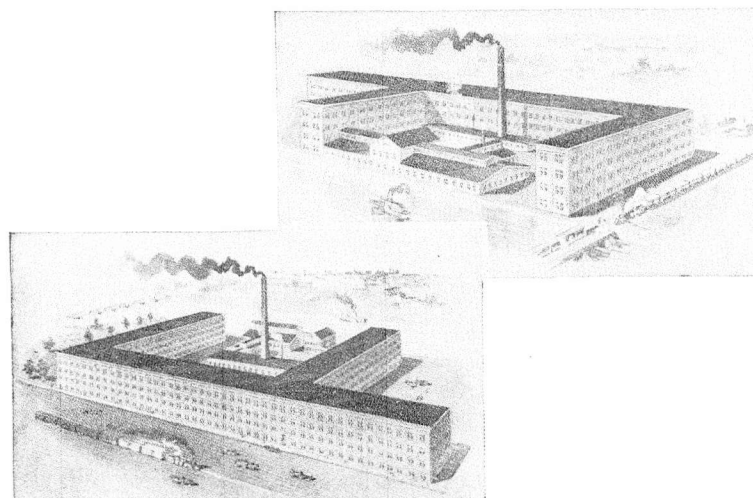
The "Barnes"

**NOTE**—All Gears on our Lathes are cut from the solid Metal.

REPAIRS—Old or broken parts sent to us must be PREPAID by Mail, Express or Freight.

## Price List and Descriptive Catalogue

# BARNES'



# LATHES

W. F. & JOHN BARNES CO.

Sole Manufacturers

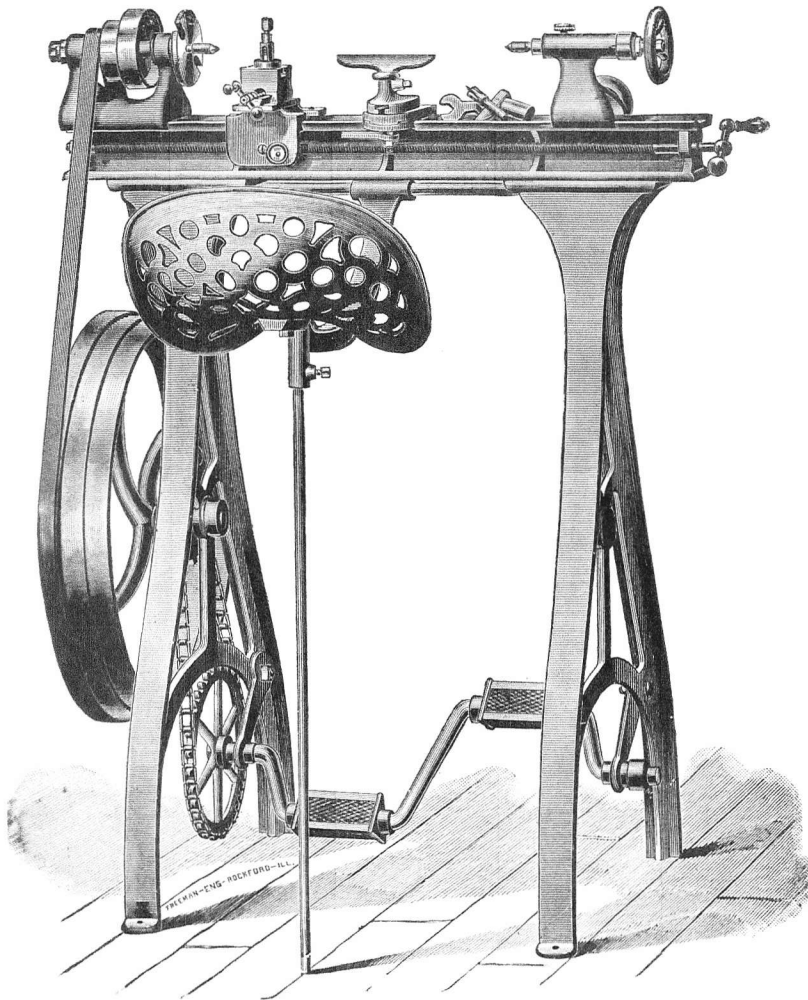
Rockford, Illinois, U. S. A.

Established 1872.



**Lathe No. 4**

7-inch Swing

**Price \$50.00**

When ordering lathes be particular to state clearly whether wanted with foot power or countershaft; if with foot power, state whether velocipede or treadle.

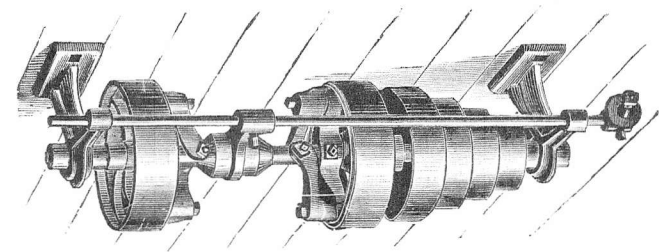
**Lathe No. 4**

7-inch Swing

**T**HIS lathe is designed for turning both wood and iron and for boring, drilling, polishing, etc. It is a desirable tool for small work and has many important advantages in the construction and arrangements of its parts. It swings 7 inches and takes 20 inches between centers. It has our patent velocipede foot power, which is the best power ever applied to a foot-driven lathe. The speed can be varied from 1,000 to 2,000 revolutions per minute, and the motion can be started, stopped or reversed instantly at the will of the operator. Greater power can be applied on the work than with any old-style foot power and with greater ease. The lathe is made entirely of iron and steel. The bed is solid and has V-shaped projections over which the head and tail stocks and hand and slide rests are fitted. The lead screw for the carriage is operated by hand: by it the carriage can be traveled 20 inches, the entire distance between centers. The carriage can be engaged or disengaged instantly from the lead screw. The cross feed way on which the tool post moves can be set at any desired angle for taper turning and boring. The tail stock can be moved and set at any point desired by the simple turning of the hand wheel; or it can be taken off entirely, thus leaving the bed free for face-plate or chuck work. The head stock spindle is hollow, size of hole  $\frac{9}{32}$  inch. The head stock spindle has taper bearings and is capable of very nice adjustment. The tail stock center is self-discharging.

The price of the lathe is \$50.00, this includes face plate, two pointed centers and one spur center, hand rest, wrenches and necessary belting, as shown in cut. The lathe weighs 210 pounds.

Boxed, ready for shipment, 265 pounds.



The above cut represents a countershaft for Nos. 4 and  $4\frac{1}{2}$  Lathes, (except cone has 3 steps only.)

The pulleys on countershaft are 7 x 2 inches and should be speeded 250 revolutions.

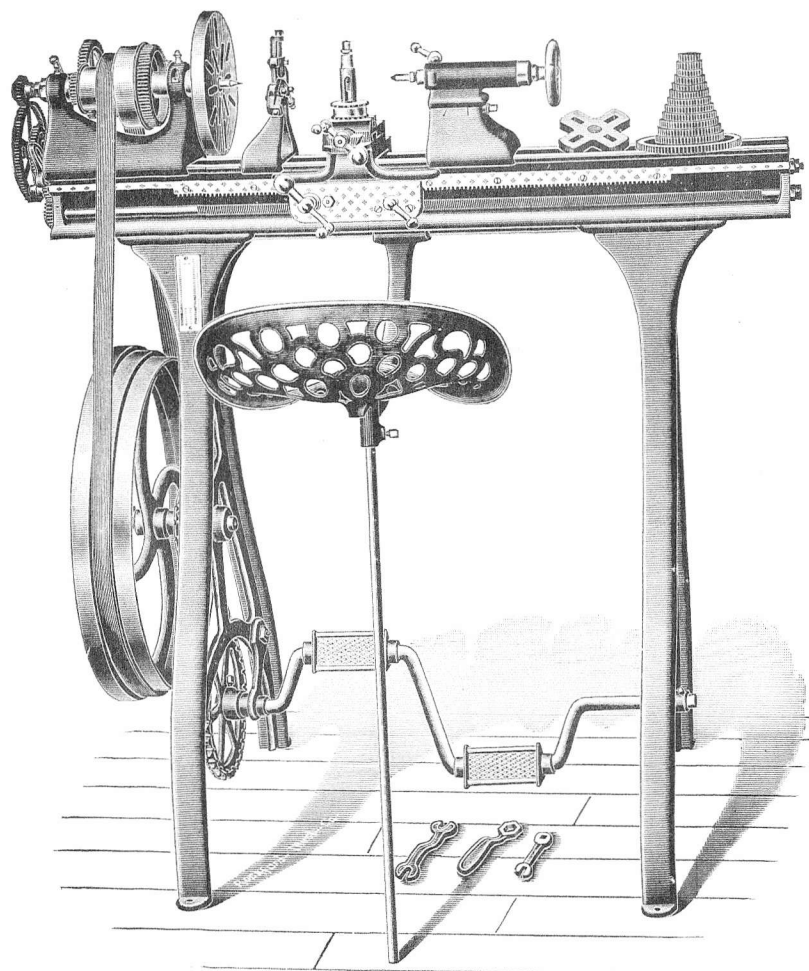
Price of countershaft, \$15.00.

We can furnish lathe with countershaft in place of foot power at same price as with foot power.

## Screw Cutting Lathe No. 4½

9-inch Swing

Price \$75.00



When ordering lathes be particular to state clearly whether wanted with foot power or countershaft; if with foot power state whether velocipede or treadle.

## Screw Cutting Lathe No. 4½

9-inch Swing

**T**HIS is the smallest back geared and screw cutting lathe we make, and we claim confidently that it is far and away the best lathe of its size on the market.

It feeds right or left, and cuts screws right or left without change of gearing. The carriage is thoroughly gibbed for taking up wear.

We do not make this lathe with automatic cross feed. Our twenty-five years' experience as lathe users and builders convinces us that on a small lathe, say less than 13 inches swing, automatic cross feed is of no particular advantage. The tool carriage on our lathe swivels so that the tool can be set to work at any desired angle, and it also adapts the lathe for taper boring. These features, we are confident, are of greater value than automatic cross feed.

The tail stock has side movement to adjust centers for turning tapers. The head stock has hollow spindle for rods up to ¾-inch. All the gearing is cut from solid metal. All parts are made of steel, where this would best serve the purpose.

It is indexed for threads 5 to 40, and the change gears furnished can be combined for many other threads. It swings 9 inches and takes 25 inches between centers. It swings 4½ inches over the tool carriage.

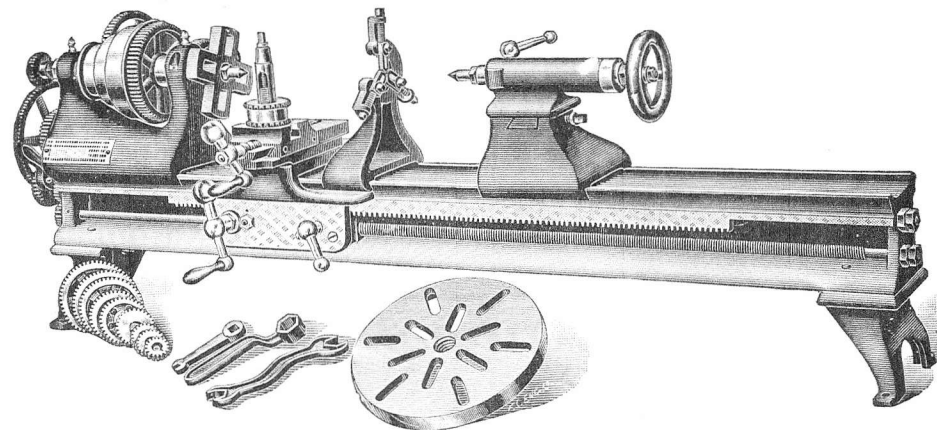
The small pulley on cone is 2½ inches; the large pulley 4½ inches.

The lathe weighs 270 pounds. Boxed, ready for shipment, 340 pounds.

Price, \$75.00.

Compound Rest, \$8.00 extra.

Raising Blocks (3 inches), \$10.00 extra.



## Bench Lathes

We have frequent calls for the Nos. 4½ and 5 Lathes to be arranged with short bench legs, instead of regular legs and foot power, and we are prepared to furnish these bench lathes as shown in above cut.

Prices without countershaft:

No. 4½ Lathe, bench legs.....	\$ 65 00
No. 5 Lathe, regular length bed, with bench legs.....	90 00
No. 5 Lathe, extra length bed, with bench legs.....	95 00

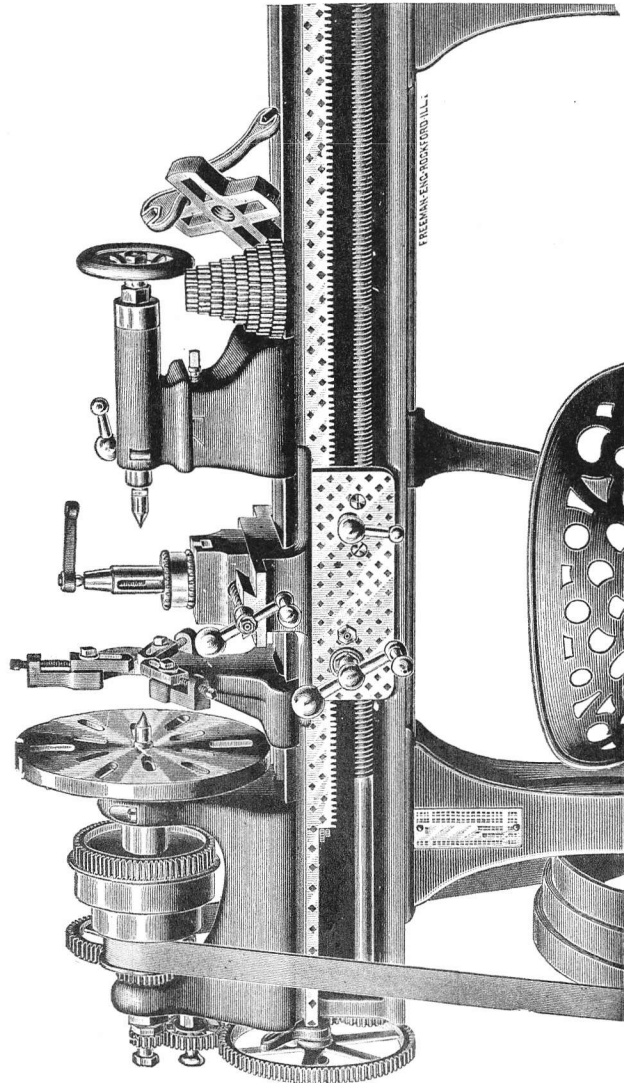
Price with countershaft:

No. 4½ Lathe.....	75 00
No. 5 Lathe, regular length bed.....	100 00
No. 5 Lathe, extra length bed.....	105 00



**Screw Cutting Lathe No. 5**

11-inch Swing  
**Price \$100.00**



The above cut shows sectional view of the bed and upper portion of lathe. The velocipede foot power is the same as shown in cut of No. 4 $\frac{1}{2}$  Lathe.

When ordering lathes be particular to state clearly whether wanted with foot power or countershaft; if with foot power state whether velocipede or treadle.

**Screw Cutting Lathe No. 5**

11-inch Swing

**T**HIS lathe swings 11 inches on the face plate, 6 $\frac{3}{4}$  inches over the tool carriage, and is 34 inches between centers.

The head stock has a steel spindle with  $\frac{1}{2}$ -inch hole through its entire length. The boxes are accurately fitted to the spindle with provision to keep them true and to take up wear. The tail stock can be readily set at any desired point, or taken altogether from the lathe bed, thus leaving it free for face plate or chuck work. It can also be set over for turning tapers. The spindles of both head and tail stocks are of steel, with positively true taper holes for the reception of the centers, and the tail stock center is self discharging. The tool carriage is a model of convenience and accuracy and is gibbed to the bed. We do not make this lathe with automatic cross feed. Our twenty-five years' experience as lathe users and builders convinces us that on a small lathe, say less than 13-inch swing, automatic cross feed is of no particular advantage. The tool carriage on our lathe swivels so that the tool can be set to work at any desired angle, and it also adapts the lathe for taper boring. These features, we are confident, are of greater value than automatic cross feed. All the works are securely protected from chips and dirt, thus insuring long wear and durability to the most costly and vital parts of the lathe. It is indexed for threads 4 to 40, and the change gears furnished can be combined for many other threads. As a left or right screw cutting lathe it is simply perfect. All the gearing is cut from solid metal in the best machinery known for gear cutting, and is as true and noiseless as is possible for metal gearing to be.

The price of the lathe complete, as described, is \$100.00.

Compound Rest, \$10.00 extra.

It weighs 385 pounds.

Boxed, ready for shipment, it weighs 500 pounds.

**Bed—Extra Length**

For gunsmiths' and other classes of work, greater distance between centers than 34 inches is required, and we can furnish the No. 5 Lathe with bed to take 40 inches between centers at an advance of \$5.00, making price of lathe with long bed \$105.00.

We can furnish blocks for raising head and tail stocks and tool post to make swing on lathe 17 inches for turning and boring.

Price of raising blocks, \$10.00.

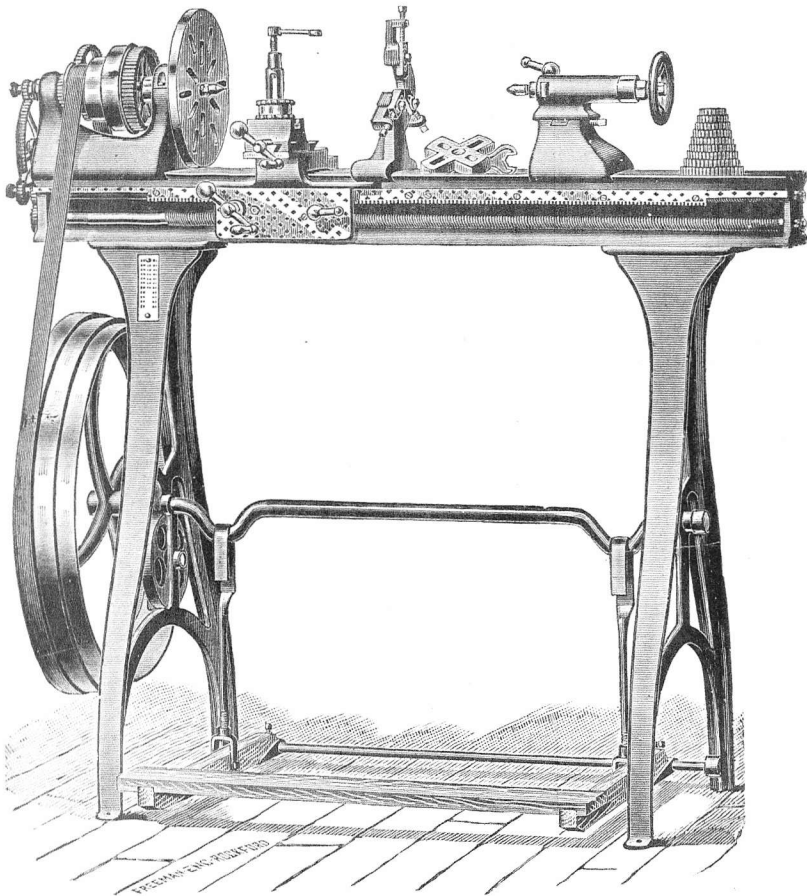
**Countershaft**

We furnish for the No. 5 Lathe a Friction Clutch Countershaft similar to the one shown by cut on page 11. The pulleys are 7 x 2 inches and should be speeded 225. Price, \$15.00.

## Screw Cutting Lathe No. 5

11-inch Swing

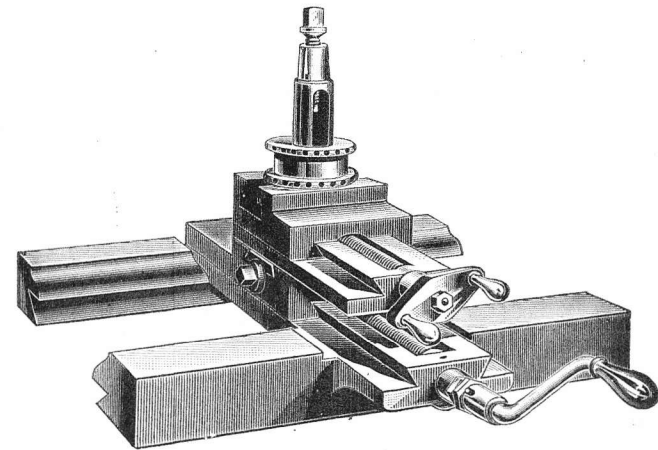
Showing Treadle Foot Power



We regard the velocipede power as the very best for a foot lathe, but are prepared to furnish any of our lathes with treadle power as shown above when for any reason it is preferred. This treadle power we guarantee to be equal to any on the market.

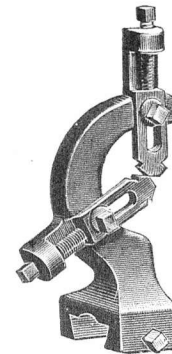
Both styles same price.

## Compound Rest



We can furnish any of our lathes (except No. 4) with compound rest, as shown in cut, in place of the ordinary rest. The extra cost for the compound rest is \$8.00 for No. 4½ Lathe, \$10.00 for the No. 5 Lathe, \$12.00 for No. 5½ Lathe.

**NOTE:** The prices given are not for compound rests separately, but represent the additional cost of the lathe with compound rest in place of the ordinary or plain rest. For example, the price of No. 4½ Lathe with the plain rest is \$75.00, or with compound rest, \$83.00.



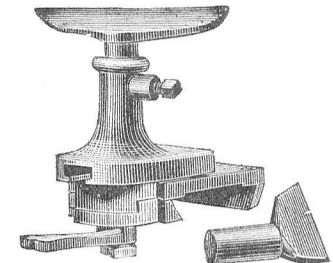
## Follower Rest

The cut shows a follower rest, which we can furnish, the price of same being for No. 4½ Lathe, \$2.50; for No. 5 Lathe, \$3.00; and for Nos. 5½ and 13 Lathes, \$4.00.

## Hand Rest

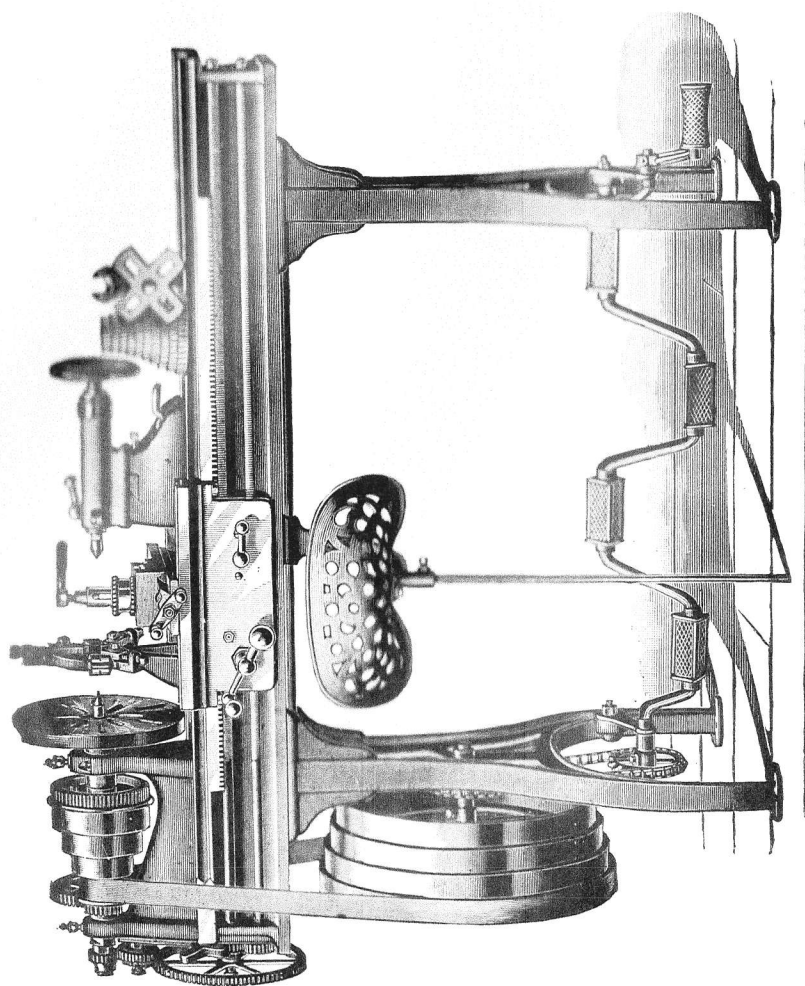
The Lathes Nos. 4½, 5, 5½ and 13 are built for metal turning, but can be speeded high enough so that wood turning can be done to very good advantage.

For wood turning a hand rest is required, which we can furnish, the price of this rest for No. 4½ Lathe being \$2.50; for No. 5 Lathe, \$3.00; and for Nos. 5½ and 13 Lathes, \$3.50.



## Screw Cutting Lathe No. 5½

13-inch Swing



When ordering lathes be particular to state clearly whether wanted with foot power or countershaft; if with foot power state whether velocipede or treadle.

## Screw Cutting Engine Lathe No. 5½

13-inch Swing

**T**HIS Lathe and the No. 13 Lathe are the largest lathes in our line and are designed to do as heavy work as is practical by the use of foot power. They are strong; thoroughly well made tools in every particular, and are the best lathes of their size made for a job or manufacturing shop.

The No. 5½ Lathe has our patent twin screw feed and screw-cutting combination, which makes changes of feed in the tool carriage instead of in the head stock. This greatly simplifies and reduces the number of parts commonly used for these purposes.

The tail stock has side movement to adjust centers for turning tapers. The head stock has hollow spindle for rods up to one-half inch. All the gearing is cut from solid metal. The description of No. 13 Lathe, except as relates to feed, will apply equally to the No. 5½ Lathe. It is indexed for threads 4 to 36, and the change gears furnished can be combined for many other threads.

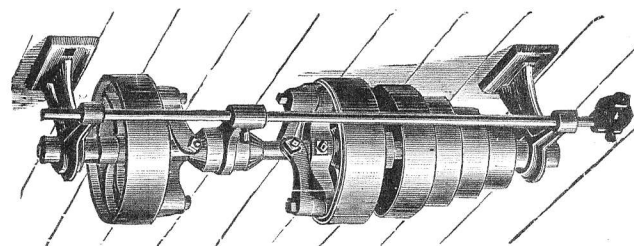
The dimensions and prices are as follows:

Length of Bed	Distance between Centers	Swing on face Plate	Swing over Tool Carriage	Hollow through Spindle	Weight of Lathe	Weight Boxed	Price
5 ft.	33 in.	13 in.	8 in.	17-32 in.	640 lbs.	775 lbs.	\$ 135 00
6 ft.	45 in.	13 in.	8 in.	17-32 in.	690 lbs.	850 lbs.	145 00
7 ft.	57 in.	13 in.	8 in.	17-32 in.	740 lbs.	890 lbs.	155 00
8 ft.	69 in.	13 in.	8 in.	17-32 in.	790 lbs.	950 lbs.	165 00
10 ft.	93 in.	13 in.	8 in.	17-32 in.	950 lbs.	1150 lbs.	185 00

We can furnish blocks for raising head and tail stocks and tool post to make swing of lathe 18 inches, for turning and boring.

Price of raising blocks, \$15.00.

Compound rest, \$12.00 extra.



The above Cut represents a Friction Clutch Countershaft for Nos 5½ and 13 Lathes.

The pulleys on this countershaft are 7 x 2 inches and should be speeded 225.

Price of countershaft, \$20.00.

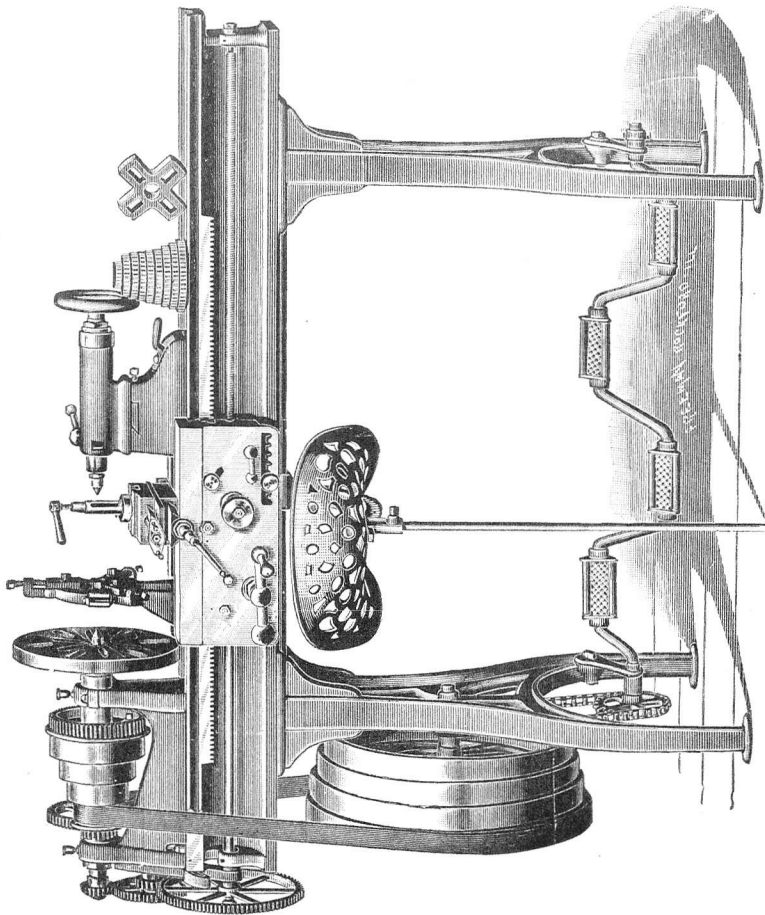
The prices of No. 5½ Lathe advances \$5.00 where countershaft is taken instead of foot power.



## Screw Cutting Lathe No. 13

Automatic Cross Feed and Compound Rest

13-inch Swing



When ordering lathes, be particular to state clearly whether wanted with foot power or countershaft; if with foot power state whether velocipede or treadle.

## Screw Cutting Engine Lathe No. 13

Automatic Cross Feed and Compound Rest. 13-inch Swing.

**T**HIS Lathe corresponds in dimensions to the No. 5½ Lathe, but differs from it in having a splined screw, giving rod feed for turning, reserving the screw for thread cutting only; also it has **Automatic Cross Feed and Compound Rest**.

With our patent velocipede foot power, motion can be started, stopped or reversed instantly, at the will of the operator, and greater power can be applied on the work than with any old style foot power and with greater ease.

The head stock has a hollow steel spindle that will take a half-inch rod through its entire length. The boxes are accurately fitted to the spindle with provision to keep them true and take up wear. The tail stock can be readily set at any desired point, or taken altogether from the lathe bed, without removing nuts or bolts.

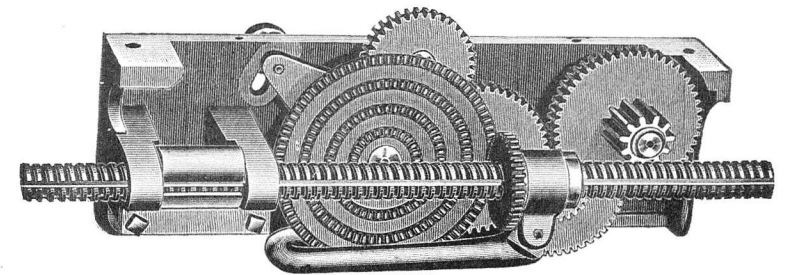
It can also be set over for turning tapers. The spindles for both head and tail stocks are of steel, with positively true taper holes for the reception of the centers, and the tail stock center is self-discharging. The tool carriage is a model of convenience and accuracy, and is gibbed to the bed.

All the works are securely protected from chips and dirt, thus insuring long wear and durability to the most costly and vital parts of the lathe. It is indexed for threads 4 to 32, and the change gears furnished can be combined for many other threads.

We call particular attention to the feed arrangements in this lathe. In the full view of lathe (see opposite page) at the lower right hand corner of the tool carriage apron is a slot; in this slot is a lever, which is also shown in the rear view of the apron (see illustration below.) This lever moved to the right or left gives a great range of feed, graduating instantly from coarse to fine or vice versa. With this lever the feed can be instantly reversed. It also serves the cross feed of the tool carriage in the same manner.

If plain rest is wanted instead of compound rest, it can be furnished at a reduction of \$12.00 from list price. Plain rest for No. 13 Lathe, however, does not swivel as on Nos. 4½, 5 and 5½ Lathes.

Extras, such as follower rest, hand rest, raising blocks and countershaft, are same price as those used on the No. 5½ Lathe.



This cut Shows Feed Arrangement in Tool Carriage

(Patented May 6, 1902.)

## Lathe No. 13

Automatic Cross Feed and Compound Rest

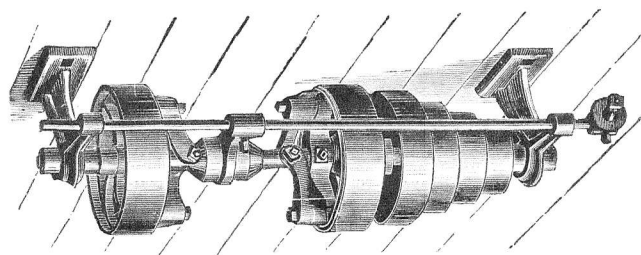
Length of Bed	Distance between Centers	Swing on Face Plate	Swing over Tool Carriage	Hollow through Spindle	Weight of Lathe	Weight Boxed	Price
5 ft.	33 in.	13 in.	8 in.	17-32 in.	640 lbs.	775 lbs.	\$162 00
6 ft.	45 in.	13 in.	8 in.	17-32 in.	690 lbs.	850 lbs.	172 00
7 ft.	57 in.	13 in.	8 in.	17-32 in.	740 lbs.	890 lbs.	182 00
8 ft.	69 in.	13 in.	8 in.	17-32 in.	790 lbs.	950 lbs.	192 00
10 ft.	93 in.	13 in.	8 in.	17-32 in.	950 lbs.	1150 lbs.	212 00

Price advances \$5.00 where Countershaft is taken in place of Foot Power.

We can furnish blocks for raising head and tail stocks and tool post to make swing of lathe 18 inches for turning and boring.

Price of Raising Blocks, \$15.00.

Turret Head, \$35.00. (See inside back cover for description).



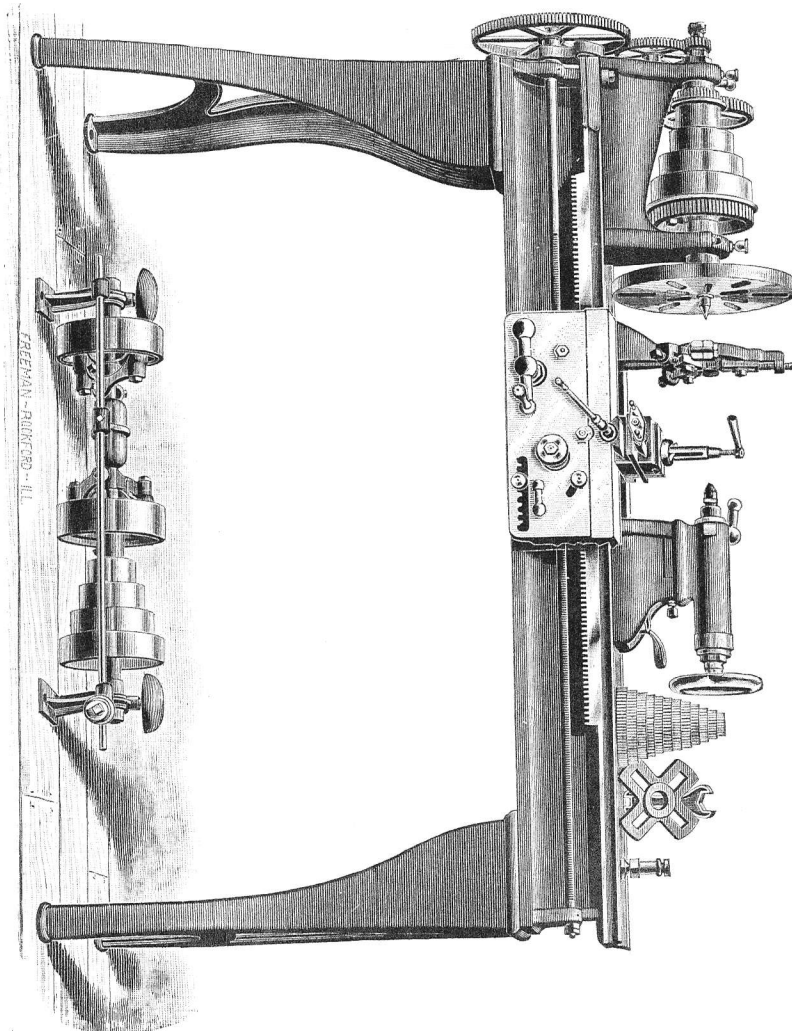
The above cut represents a Friction Clutch Countershaft for No. 13 Lathe. The pulleys on this countershaft are 7 x 2 inches, and should be speeded

225.

Price of countershaft, \$20.00.

## Lathe No. 13

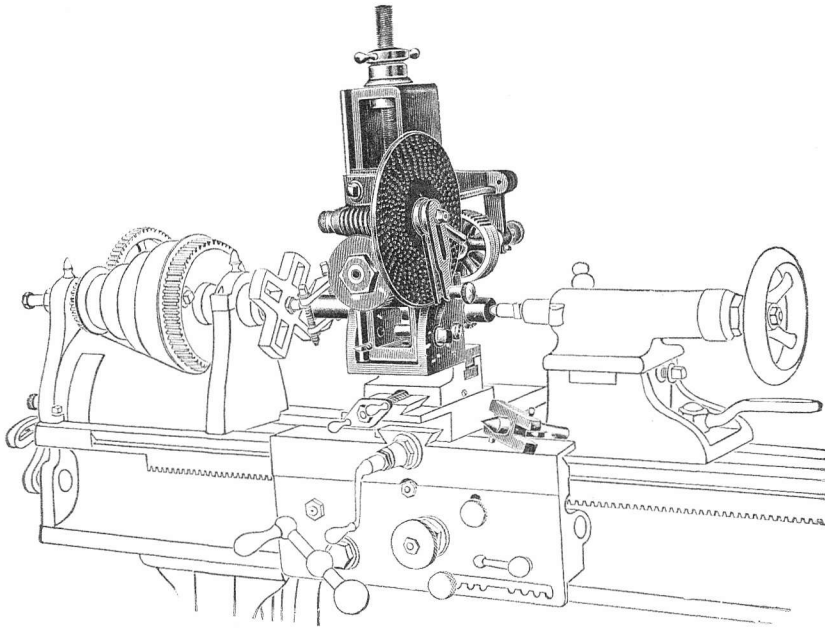
Automatic Cross Feed and Compound Rest  
13-inch Swing



The cut on this page shows the No. 13 Lathe with countershaft instead of foot power.

## Universal Gear Cutting and Milling Attachment

For Nos. 5½ and 13 Lathes



The above attachment is mechanical, practical, well made, convenient to operate, strong, and will do as accurate work as any gear cutting or milling machine. There are numerous cheap and worthless gear cutting attachments on the market; we do not class ours with these, but we offer one that is low in cost, considering quality, and one that will do accurate work.

Our gear cutting attachment is easily attached to the lathe; adjustments can be made to obtain any desired angle. Its range of work consists of cutting mitre, bevel and spur gears, fluting taps, reamers or counter borers, milling cutters, etc. Equipped with an ordinary chuck it can be used for slitting screws, bolts, etc., and other varieties of milling work. This attachment will cut gears as large as the lathe will swing them.

The Brown & Sharp or any other standard milling cutter can be used. Hole in spindle B. & S. No. 7 taper.

A very complete index is furnished with each attachment, cutting nearly all numbers up to 360.

List price.....\$75.00

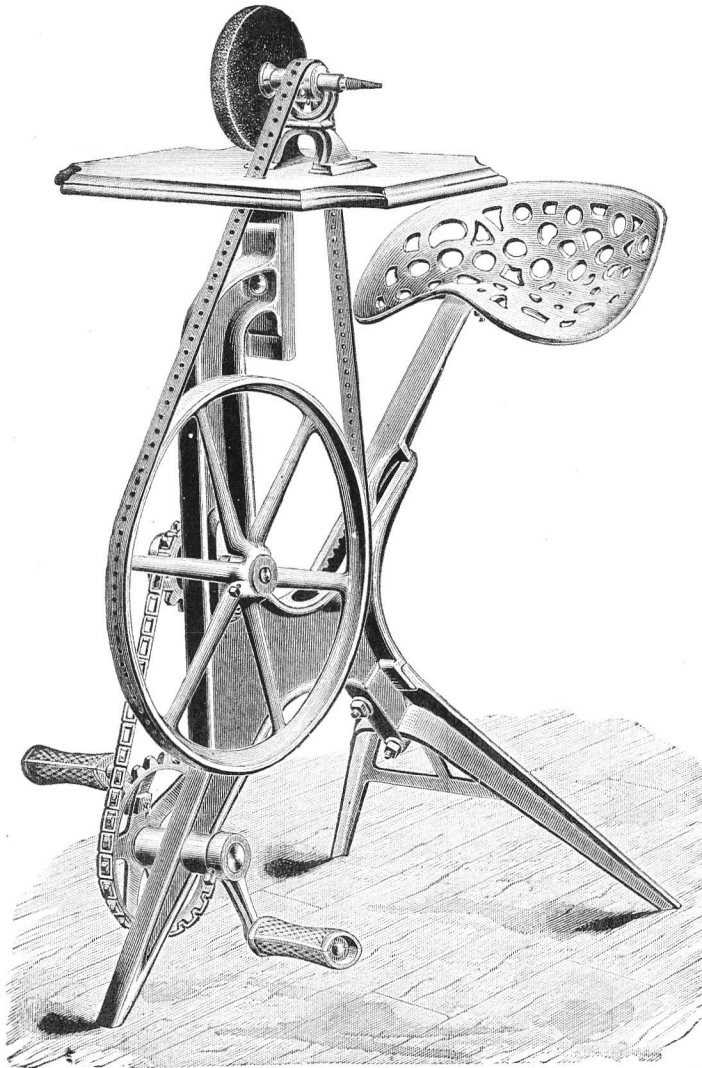
Weight, 60 lbs. (Boxed for shipment.)

	With Foot Power	With Counter-shaft	With both Foot Pwr and Counter-shaft	Extra cost Compound Rest	Extra cost Raising Blocks	Extra cost Follow Rest	Extra cost Hand Rest	Extra cost Milling Gear Attachment	Approximate Shipping Weight in lbs
No. 4 Lathe.....	\$ 50 00	\$ 50 00	\$ 65 00	.....	.....	.....	.....	.....	265
No. 4 Bench Lathe.....	40 00	50 00	.....	.....	.....	.....	.....	.....	100
No. 4½ Lathe.....	75 00	75 00	90 00	8 00	10 00	2 50	2 50	.....	350
No. 4½ Bench Lathe.....	65 00	75 00	.....	8 00	10 00	2 50	2 50	.....	175
No. 5 Lathe (regular bed).....	100 00	100 00	115 00	10 00	10 00	3 00	3 00	.....	485
No. 5 Lathe (long bed).....	105 00	105 00	120 00	10 00	10 00	3 00	3 00	.....	545
No. 5 Bench Lathe.....	90 00	100 00	.....	10 00	10 00	3 00	3 00	.....	340
No. 5 Bench Lathe (long bed).....	95 00	105 00	.....	10 00	10 00	3 00	3 00	.....	360
No. 5½ Lathe (5-ft. bed).....	135 00	140 00	155 00	12 00	15 00	4 00	3 50	75 00	890
No. 5½ Lathe (6-ft. bed).....	145 00	150 00	165 00	12 00	15 00	4 00	3 50	75 00	960
No. 5½ Lathe (7-ft. bed).....	155 00	160 00	175 00	12 00	15 00	4 00	3 50	75 00	990
No. 5½ Lathe (8-ft. bed).....	165 00	170 00	185 00	12 00	15 00	4 00	3 50	75 00	1080
No. 5½ Lathe (10-ft. bed).....	185 00	190 00	205 00	12 00	15 00	4 00	3 50	75 00	1264
No. 13 Lathe (5-ft. bed).....	*162 00	*167 00	182 00	*	15 00	4 00	3 50	75 00	890
No. 13 Lathe (6-ft. bed).....	*172 00	*177 00	192 00	*	15 00	4 00	3 50	75 00	960
No. 13 Lathe (7-ft. bed).....	*182 00	*187 00	202 00	*	15 00	4 00	3 50	75 00	990
No. 13 Lathe (8-ft. bed).....	*192 00	*197 00	212 00	*	15 00	4 00	3 50	75 00	1080
No. 13 Lathe (10-ft. bed).....	*212 00	*217 00	232 00	*	15 00	4 00	3 50	75 00	1264

\*This price includes the Compound Rest and Automatic Cross Feed. If Lathe is wanted without the Compound Rest then deduct \$12.00 from list price. (Remember the Plain Rest on No. 13 Lathe does not swivel like on the Nos. 5½, 5 and 4½ Lathes.)



## Grinding and Polishing Machine



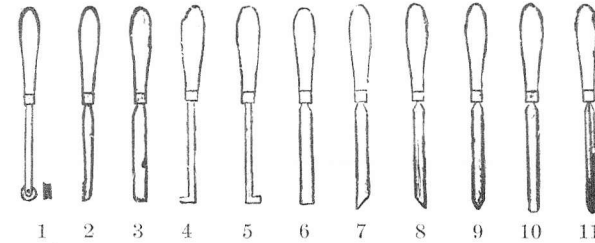
This machine is designed for light work, carrying emery and buffing wheels up to six inches diameter by one inch face.

It will be found a most useful machine by carpenters and other woodworkers and mechanics for grinding plane irons, chisels and other tools, and with emery wheel of proper shape for gumming their saws.

Weight of machine, 85 pounds; boxed for shipment, 115 lbs. **Price \$18.00.**

The cut shows emery wheel on spindle of the machine, but this is for the purpose of illustration only; no emery wheel is included with the grinder.

## Hand Turning Tools



- No. 1. Milling tool, one knurl, \$1.00; extra knurls 40c. each.  
 Nos. 2, 3. Chasers, for cutting Screws from 10 to 48 threads to the inch, 75c. per pair for each thread.  
 Nos. 4, 5. Bent inside tools for brass, ivory, hardwood, etc., 25c. each.  
 No. 6. Flat tools for brass, ivory, hardwood, etc.,  $\frac{1}{8}$ ,  $\frac{1}{4}$ ,  $\frac{3}{8}$ ,  $\frac{1}{2}$  inch, 25c. each.  
 Nos. 7, 8. Side tools, right and left, for brass, ivory, hardwood, etc.,  $\frac{1}{4}$ ,  $\frac{1}{2}$  inch, 25c. each.  
 No. 9. Point tools for brass, ivory, hardwood, etc.,  $\frac{1}{8}$ ,  $\frac{1}{4}$ ,  $\frac{3}{8}$ ,  $\frac{1}{2}$  inch, 25c. each.  
 No. 10. Round pointed tools for brass, ivory, hardwood, etc.,  $\frac{1}{8}$ ,  $\frac{1}{4}$ ,  $\frac{3}{8}$ ,  $\frac{1}{2}$  inch, 25c. each.  
 No. 11. Square gravers for metal,  $\frac{1}{8}$ ,  $\frac{3}{16}$ ,  $\frac{1}{4}$  inch, 25c. each.

## Lathe Tools

For Lathe.....	No. 4	No. 4 $\frac{1}{2}$ , 5	No. 5 $\frac{1}{2}$ , 13
Size of Steel.....	$\frac{1}{4} \times \frac{1}{2}$	$\frac{5}{16} \times \frac{5}{8}$	$\frac{3}{8} \times \frac{3}{4}$
Price.....	30c.	30c.	40c.



Right-hand Diamond Point.



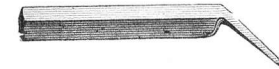
Left-hand Diamond Point.



Right-hand Side Tool.



Left-hand Side Tool.



Bent Right-hand Side Tool.



Cut-off Tool.



Thread Tool.

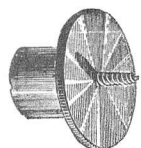


Bent Thread Tool.

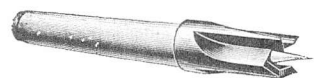


Inside or Boring Tool.

## Screw Chuck



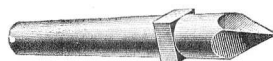
For Lathes Nos. 4, 4½ and 5.....\$1 50 each  
 For Lathes Nos. 5½ and 13..... 2 00 each



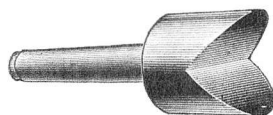
Spur Center.....\$1 50



Cup Center.....\$1 50

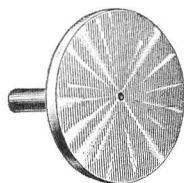


Square Center for Iron.....\$1 50



## Crotch Center

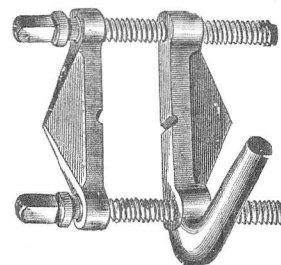
For Lathe No. 4½.....\$1 50  
 For Lathe No. 5..... 1 75  
 For Lathes Nos. 5½ and 13..... 2 00



## Drill Pad

For Lathe No. 4½.....\$1 50  
 For Lathe No. 5..... 1 75  
 For Lathes Nos. 5½ and 13..... 2 00

## Lathe Dogs



## Steel Clamp Dogs

No. 1. 1¼ inches between screws.....\$1 50  
 No. 2. 2 " " "..... 2 00  
 No. 3. 2½ " " "..... 2 50  
 Price, per set of three..... 5 50

## Common Dogs



1-inch.....25c  
 ¾ ".....25c  
 ¾ ".....35c  
 1 ".....35c  
 1¼ ".....50c  
 1½ ".....50c  
 Price per set of six.....\$2 20

## Cast Steel Turning Chisels

WARRANTED



Size, ⅛ ⅜ ¼ ⅜ ½ ⅝ ¾ 1 1¼ 1½ 1¾ 2 inch  
 Price, 0.25 .25 .25 .27 .30 .33 .37 .41 .48 .60 .77 .93 \$1.10 each  
 Price per set of 13.....\$6.31

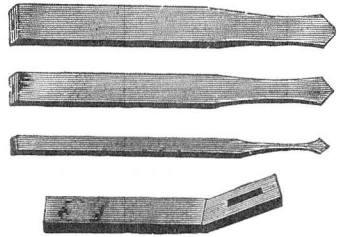
## Cast Steel Turning Gouges

WARRANTED



Size, ⅛ ⅜ ¼ ⅜ ½ ⅝ ¾ 1 1¼ 1½ 1¾ 2 inch  
 Price, 0.32 .32 .32 .36 .40 .43 .51 .58 .65 .85 1.11 1.31 \$1.60 each  
 Price per set of 13.....\$8.76

### Chuck Drills



These drills are made of flat tool steel and have center drilled in back end to rest on center of tail stock of lathe. The piece represented below is to be fastened to the slide rest, so that the slot comes opposite the hole to be bored, the point of drill is to be passed through the slot which holds it steady while the work is revolved by the lathe. In this way a very straight and true hole can be

made. We have these drills in sets of seven, for drilling from  $\frac{1}{8}$  to  $\frac{1}{2}$ -inch hole. The drills are all five inches long. Price per set, including holder, \$2.00.

### Steel Lathe Arbors

For holding Saws, Emery Wheels, etc.



Diameter.....  $\frac{1}{2}$        $\frac{3}{8}$        $\frac{3}{4}$  inch  
Price..... \$1.75      \$2.50      \$3.00 each

### Turner's Sizer



Price..... \$1.25

### Bell Centering Punch



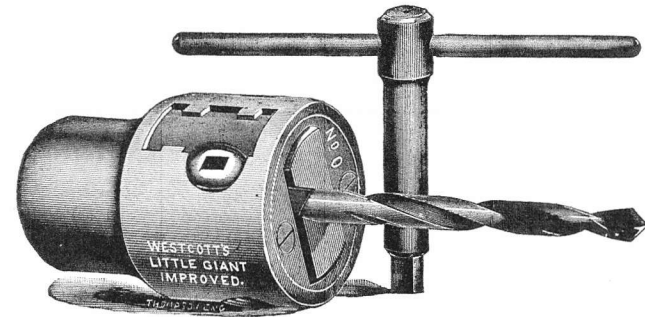
This is a full size illustration of a very handy and useful tool. It needs no explanation, as every machinist knows its usefulness and that his kit of tools is incomplete without it.

It is very accurate, finely finished and made of the best material suitable. Its capacity is up to  $1\frac{1}{2}$  inch; weight, 5 ounces.

Price..... \$1.00

### Westcott's Little Giant Drill Chuck

Improved

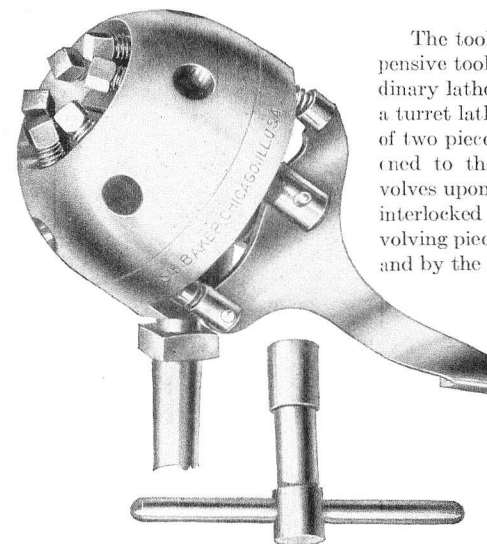


No.	Diameter	Holding Drills	Price.
00	$1\frac{1}{4}$ inch	0 to $\frac{1}{4}$ inch	\$ 7 00
0	$2\frac{1}{4}$ "	0 to $\frac{1}{2}$ "	8 00
1	$2\frac{3}{4}$ "	0 to $\frac{5}{8}$ "	9 00
2	$3\frac{1}{2}$ "	0 to 1 "	10 00
$2\frac{1}{2}$	4 "	0 to 1 " extra strong	11 00

These chucks are self-centering and hold firmly without injuring drills, bits or rods of any size or shape within limits named for such size. They have holes through the center, and rods can be held in them for cutting off. For this purpose they are much cheaper than lathe chucks.

The jaws and the screws are within the body of the chuck, are made of the best steel carefully tempered. There is no shearing or bending of the drill in these chucks. Each tooth to the jaw has an opposite to it, holding the drill firmly as in a vise.

### Baker Turret Head Lathe Tool



The tool herewith presented is an inexpensive tool that may be used in an ordinary lathe for many purposes for which a turret lathe would be used. It consists of two pieces, one of which is rigidly fastened to the center, while the other revolves upon it, being suitably guided and interlocked to make it reliable. The revolving piece has six holes to receive tools, and by the latch is instantly locked so as to hold either of the tools in position to do its particular work.

Size,  $3\frac{1}{2}$  inches in diameter. Price, \$13.00.



### Westcott's Patent Combination Lathe Chuck

THE advantage of these chucks consists in not only making the jaws reversible, by which arrangement the small sized chucks can be used with facility in holding screws, pipes and drills, but also in making them act independently of each other when required, as well as to act concentrically and simultaneously. Thus the jaws are both **Universal** and **Independent**. The chuck is therefore enabled to seize and firmly hold round, oval, oblong or other eccentric shapes, as well as to hold work in an eccentric position.

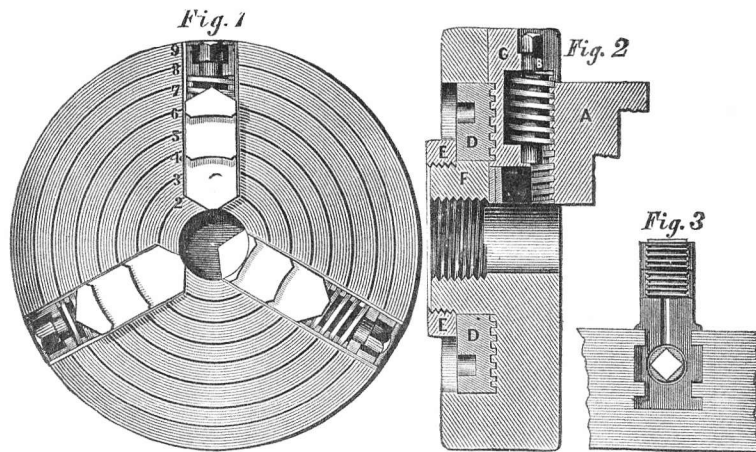


Fig. 1 is a front view of the chuck with one of the jaws reversed.

Fig. 2 is a vertical section, showing the manner in which the ring D engages in the box C, also showing the position of the screw B.

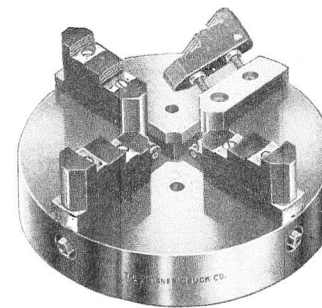
Fig. 3 is a section of the chuck showing end of screw and box C; also the strong and durable manner in which all the parts are secured to the body of the chuck. All screws and the boxes carrying the jaws are made of the best cast steel, the wrenches and scroll rings of the best hammered iron, made especially for this work. The jaws are of steel and all wearing parts are thoroughly hardened.

#### PRICES

Three Jaws			Four Jaws		
Diameter	Will hold inside jaws	Price	Diameter	Will hold inside jaws	Price
$4\frac{3}{16}$ inch	$5\frac{1}{2}$ inch	\$24 00	$4\frac{3}{16}$ inch	$5\frac{1}{2}$ inch	\$30 00
$7\frac{1}{2}$ inch	8 inch	26 00	$7\frac{1}{2}$ inch	8 inch	32 00

### Skinner Patent Chucks

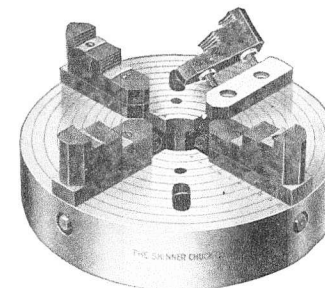
#### Price List of Skinner Combination Lathe Chucks with Reversible Jaws



Size	3 Jaws	4 Jaws
4 inch	\$22 00	\$26 00
6 inch	26 00	32 00
8 inch	30 00	38 00
9 inch	34 00	42 00

This chuck can be used either independently or universally concentric or eccentric.

#### Price List of Skinner Independent Lathe Chucks with Four Independent Jaws. (1908 Pattern)



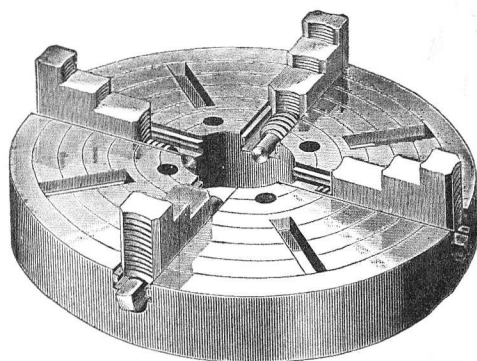
Size	Price
4 inch	\$14 00
6 inch	18 00
8 inch	22 00
10 inch	26 00

## Cushman Independent 4-Jaw Chuck

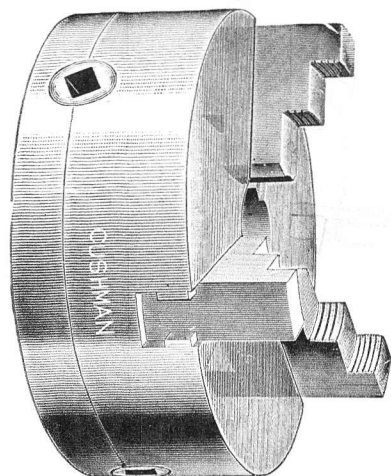
Reversible Jaws

Price List Including  
Keys and Bolts

4½ inch	\$14 00
6 "	18 00
9 "	24 00



## Universal Geared Scroll Chuck



Size	Diameter of Hole	Diameter of Face of Plate	Recess	Price of 3 Jaws	Price of 4 Jaws
4 inch	1	3 1-16	in.	\$14 40	\$16 20
5 "	1¼	3¾	"	18 00	20 20
6 "	1 9-16	4¾	"	21 60	24 30
7½ "	2	4¾	"	24 00	28 00

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.

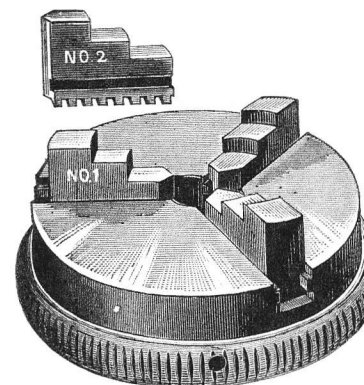
The scroll thread and the curved teeth on jaws are made by special machinery, which not only insures their

properly fitting in any position they may be placed, but the wear is reduced to a minimum.

With proper care a scroll chuck will outwear any other style.

We make all the parts of the best material we can secure suited to the purpose. The scrolls and pinions of all sizes are made of open-hearth steel; the jaws in the smaller sizes are made of a special crucible steel. We do not use malleable iron or steel castings in these chucks.

## Champion Scroll Chucks



These chucks, which are now made in seven sizes, are very tastily designed, and are intended particularly for use on foot and light power lathes. They are light, but strong, the shells being made from malleable iron, and the scrolls and jaws of steel.

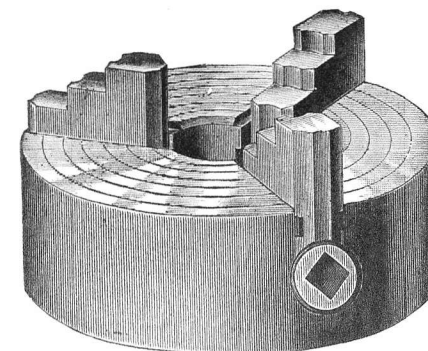
Price List

3 inch with two sets of jaws	\$ 6 75
4 " " " " " "	8 00
5 " " " " " "	9 00
6 " " " " " "	12 00
7½ " " " " " "	14 00

## Champion Independent Jaw Chucks

This is an entirely new line of independent jaw chucks for all kinds of light work. They are made in nine sizes, and are especially adapted for foot and light power lathes.

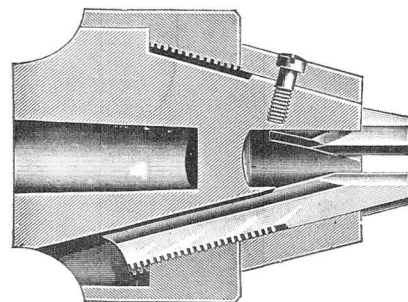
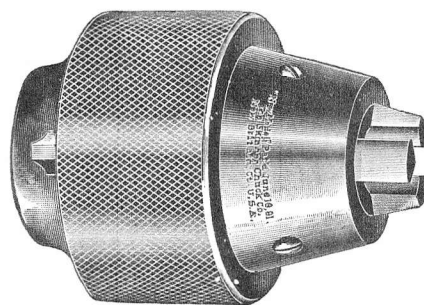
In size and appearance they are quite similar to the scroll chucks, but are provided with three or four **Independent Reversible Steel Jaws**, each of which is operated by a separate screw. These chucks will hold with great firmness and will take pieces considerably larger than the diameter of the chuck—a 5-inch chuck holding a 6-inch piece without difficulty.



Price List

Diameter	3 Jaws	4 Jaws
3 inch	\$ 8 50	\$10 00
4 "	10 00	12 00
5 "	12 00	14 00
6 "	14 00	16 00
7½ "	16 00	18 00
9 "	18 00	20 00
10 "	20 00	22 00

## The Almond Drill Chuck



The Almond Drill Chuck is especially adapted for all light and rapid drilling, such as is done on "sensitive" drills and hand lathes, and where accuracy is required. This chuck is made entirely of steel, and of such grades as are best adapted to the different parts, all of which are carefully constructed by skilled workmen with the latest improved tools and machinery.

By revolving the knurled nut the jaws are moved outward or inward in the converging slots in the chuck body as may be desired. The chuck can be operated by hand and when a very firm grip is desired, it may be obtained by use of a spanner wrench, one being furnished with each chuck.

Each chuck is ground true after the jaws are hardened.

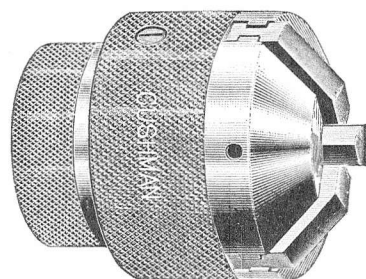
We also carry the Jacobs Drill Chucks. (Same price as the Almond.)

It is furnished in two sizes, as follows:

No. 2. To hold 0 to $\frac{1}{32}$ inch.....	\$5 50
No. 3. To hold 0 to $\frac{1}{16}$ inch.....	9 00

## The Acme Drill Chuck

The Acme Drill Chuck is all made of steel. Holds drills from 0 to  $\frac{1}{2}$  inch. Perfectly true and firm, and is the best drill chuck for the price on the market. Price \$4.00.



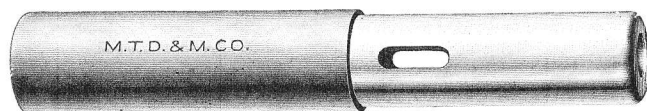
## Morse Patent Twist Drills

Taper Shanks				Straight Shanks			
Diameter of Drills	Length in Inches	Price Each		Diameter of Drills	Length in Inches	Price per Dozen	Price Each
1-4	6 $\frac{1}{2}$	\$ 60		1-16	2	\$1 00	09c
9-32	6 $\frac{1}{2}$	65		5-64	2	1 10	10
5-16	6 $\frac{1}{2}$	70		3-32	2	1 20	11
11-32	6 $\frac{1}{2}$	75		7-64	2	1 30	12
3-8	7	80		1-8	3	1 45	13
13-32	7	85		9-64	3	1 60	15
7-16	7 $\frac{1}{2}$	90		5-32	3	1 80	16
15-32	7 $\frac{1}{2}$	95		11-64	3	2 00	18
1-2	8	1 00		3-16	3	2 20	20
17-32	8	1 10		13-64	3	2 40	21
9-16	8 $\frac{1}{2}$	1 20		7-32	3	2 65	23
19-32	8 $\frac{1}{2}$	1 30		15-64	3	2 90	26
5-8	9	1 40		1-4	4	3 15	28
21-32	9	1 50		17-64	4	3 40	30
11-16	9 $\frac{1}{2}$	1 60		9-32	4	3 65	32
23-32	9 $\frac{1}{2}$	1 70		19-64	4	3 90	35
3-4	9 $\frac{1}{2}$	1 85		5-16	4	4 20	37
25-32	9 $\frac{1}{2}$	2 00		21-64	4	4 50	40
13-16	10	2 15		11-32	4	4 80	42
27-32	10 $\frac{1}{2}$	2 30		23-64	4	5 10	45
7-8	10 $\frac{1}{2}$	2 45		3-8	5	5 40	48
29-32	10 $\frac{1}{2}$	2 60		25-64	5	5 70	50
15-16	10 $\frac{1}{2}$	2 75		13-32	5	6 00	53
31-32	10 $\frac{1}{2}$	2 90		27-64	5	6 40	55
1	11	3 00		7-16	5	6 80	59
1 1-32	11 $\frac{1}{2}$	3 20		29-64	5	7 20	63
1 1-16	11 $\frac{1}{2}$	3 40		15-32	5	7 50	65
1 3-32	11 $\frac{1}{2}$	3 60		31-64	5	7 75	67
1 1-8	11 $\frac{1}{2}$	3 80		1-2	6	8 00	70
1 5-32	12	4 00					
1 3-16	12	4 20					
1 7-32	12 $\frac{1}{2}$	4 40					
1 1-4	12 $\frac{1}{2}$	4 50					
1 9-32	14	4 65					
1 5-16	14 $\frac{1}{2}$	4 80					
1 11-32	14 $\frac{1}{2}$	5 00					
1 3-8	14 $\frac{1}{2}$	5 20					
1 13-32	14 $\frac{1}{2}$	5 40					
1 7-16	14 $\frac{1}{2}$	5 60					
1 15-32	14 $\frac{1}{2}$	5 80					
1 1-2	15	6 00					
1 17-32	15 $\frac{1}{2}$	6 30					
1 9-16	15 $\frac{1}{2}$	6 60					
1 19-32	15 $\frac{1}{2}$	6 90					
1 5-8	15 $\frac{1}{2}$	7 20					
1 21-32	15 $\frac{1}{2}$	7 50					
1 11-16	15 $\frac{1}{2}$	7 80					
1 23-32	15 $\frac{1}{2}$	8 10					
1 3-4	16	8 40					
1 25-32	16 $\frac{1}{2}$	8 60					
1 13-16	16 $\frac{1}{2}$	8 80					
1 27-32	16 $\frac{1}{2}$	9 00					
1 7-8	16 $\frac{1}{2}$	9 20					
1 29-32	16 $\frac{1}{2}$	9 35					
1 15-16	16 $\frac{1}{2}$	9 50					
1 31-32	16 $\frac{1}{2}$	9 65					
2	16 $\frac{1}{2}$	9 80					

Numbered Sizes by Stubbs' Steel Wire Gauge			
Number by Gauge	Length in Inches	Price per Dozen	Price Each
1 to 5	4	\$2 35	22c
6 to 10	3	2 25	21
11 to 15	3	2 10	20
16 to 20	3	1 95	19
21 to 25	3	1 75	17
26 to 30	2	1 55	15
31 to 35	2	1 40	14
36 to 40	2	1 25	12
41 to 45	2	1 10	10
46 to 50	2	95	9
51 to 60	1	95	9
61 to 70	1	90	8

## Steel Sockets for Taper Shank Drills



## Morse Taper Sockets

No. 1 holds $\frac{1}{4}$ to $\frac{1\frac{1}{2}}$ inch, inclusive.....	\$1 20
No. 2 holds $\frac{3}{8}$ to $\frac{3}{4}$ inch, inclusive.....	1 80
No. 3 holds $\frac{1}{2}$ to $1\frac{1}{4}$ inch, inclusive.....	2 50
No. 4 holds $1\frac{3}{4}$ to 2 inch, inclusive.....	4 00

## Steel Sleeves for Taper Shank Drills



No. 1, fitted to No. 2 or 3 Socket.....	\$1 80
No. 1, fitted to No. 4 Socket.....	3 00
No. 2, fitted to No. 3 Socket.....	2 40
No. 2, fitted to No. 4 Socket.....	3 00
No. 3, fitted to No. 4 Socket.....	3 00

## Price of Drills per Set

Set of Taper Shank Drills, $\frac{1}{4}$ to 1 inch, varying by 16ths.....	\$20 00
Set of Taper Shank Drills, $\frac{3}{8}$ to $1\frac{1}{4}$ inch, varying by 16ths.....	34 50
Set of Taper Shank Drills, $\frac{3}{8}$ to $\frac{1}{2}$ inch, by 32ds, $\frac{1}{2}$ to $1\frac{1}{4}$ in. by 16ths.....	42 00
Set of Drills, straight shanks, $\frac{1}{16}$ to $\frac{1}{2}$ inch, by 64ths, mounted.....	10 00
Set of Drills, straight shanks, $\frac{1}{16}$ to $\frac{1}{2}$ inch, by 32ds, mounted.....	5 40
Set of Drills, steel wire gauge, from No. 1 to 60, mounted.....	8 10
Half Set of Drills, alternate No. 1 to 60, mounted.....	4 30

## Price List of Emery Wheels

These are guaranteed to be the best Emery Wheels in the market.

## THICKNESS OF WHEELS IN INCHES

DIAMETER OF WHEELS IN INCHES	THICKNESS OF WHEELS IN INCHES								
	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{2}$	2		
3	\$ 50	\$ 65	\$ 80	\$ 95	\$ 1 10	\$ 1 40	\$ 1 70		
4	75	95	1 10	1 35	1 60	2 10	2 60		
5	1 00	1 20	1 40	1 80	2 20	3 00	3 80		
6	1 40	1 60	1 75	2 40	3 05	4 35	5 65		
8	2 10	2 35	2 60	3 60	4 60	6 60	8 60		
10	3 00	3 35	3 65	5 00	6 35	9 05	11 75		

Prices of larger wheels quoted on application.

Memorandum of Dimensions and Approximate Weights  
of Machines Packed for Export

## Lathes

## No. 4 Lathe; two boxes.

One $37\frac{1}{2}$ x25 $\frac{1}{2}$ x11 inches.	Gross weight 185 pounds.
One 38 x 8 x11 "	80 "

No. 4 $\frac{1}{2}$  Lathe; two boxes.

One $37\frac{1}{2}$ x25 $\frac{1}{2}$ x11 inches.	Gross weight 200 pounds.
One $45\frac{1}{2}$ x10 $\frac{1}{2}$ x13 "	150 "

## No. 5 Lathe; regular length bed; two boxes.

One $37\frac{1}{2}$ x25 x13 inches.	Gross weight 205 pounds.
One $58\frac{1}{2}$ x13 x15 "	280 "

## No. 5 Lathe; extra length bed; two boxes.

One $37\frac{1}{2}$ x25 x13 inches.	Gross weight 230 pounds.
One 67 x15 x15 "	315 "

No. 5 $\frac{1}{2}$  and 13 Lathe; 5 ft. bed; three boxes.

One 36 x27 x11 inches.	Gross weight 210 pounds.
One $22\frac{1}{2}$ x22 $\frac{1}{2}$ x10 "	170 "
One 68 x19 x18 $\frac{1}{2}$ "	510 "

## 6 ft. bed; three boxes.

One $37\frac{1}{2}$ x27 x11 inches.	Gross weight 210 pounds.
One $22\frac{1}{2}$ x22 $\frac{1}{2}$ x10 "	170 "
One $80\frac{1}{2}$ x19 x18 $\frac{1}{2}$ "	580 "

## 7 ft. bed; four boxes.

One $32\frac{1}{2}$ x26 x10 inches.	Gross weight 230 pounds.
One 44 x13 $\frac{1}{2}$ x13 $\frac{1}{2}$ "	250 "
One 90 x10 x 8 $\frac{1}{2}$ "	300 "
One $22\frac{1}{2}$ x22 $\frac{1}{2}$ x10 "	170 "

## 8 ft. bed; four boxes.

One 44 x18 x14 inches.	Gross weight 280 pounds.
One 36 x27 x11 "	250 "
One $102\frac{1}{2}$ x10 $\frac{1}{2}$ x10 $\frac{1}{2}$ "	380 "
One $22\frac{1}{2}$ x22 $\frac{1}{2}$ x10 "	170 "

## 10 ft. bed; five boxes.

One 36 x27 $\frac{1}{2}$ x11 inches.	Gross weight 171 pounds.
One 26 x27 $\frac{1}{2}$ x11 "	185 "
One 44 x18 x14 "	286 "
One 128 x10 x 8 $\frac{1}{2}$ "	452 "
One $22\frac{1}{2}$ x22 $\frac{1}{2}$ x10 "	170 "

## Polisher and Grinder.

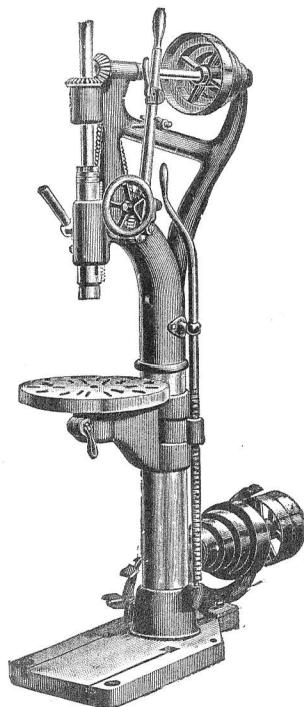
$34\frac{1}{2}$ x23x8 $\frac{1}{2}$ inches.	Gross weight 115 pounds.
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*We Also Make a Complete Line of*

## **UPRIGHT DRILLS**

For Power only, not Foot Power

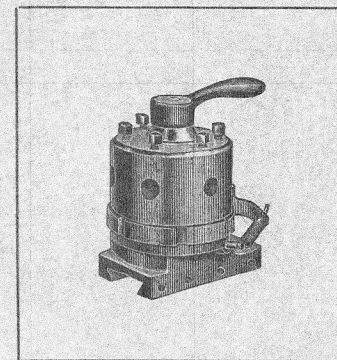


### **Sizes with Stationary Head.**

8-inch Bench Drill.  
10-inch Friction Drill.  
15-inch Drill.  
20-inch Drill.  
22½-inch Drill.  
25-inch Drill.

### **Sizes with Sliding Head.**

22-inch Drill.  
26-inch Drill.  
28-inch Drill.  
34-inch Drill.  
42-inch Drill.  
50-inch Drill.



### **Turret Head**

**\$35.00**

For use on No. 5½ and No. 13 Lathes only

Turret has 6 holes (1 inch dia.)

Discount same as on Lathe.

In ordering be sure and state whether for use on No. 13 Lathe, or if on No. 5½ Lathe whether Lathe has Plain or Compound Rest.

### **Fitting Chucks**

Net cost for fitting chucks with face plates ready to screw on spindle of "Barnes" Lathes, \$1.50.

Net cost for fitting Almond, Jacobs or Acme Drill Chuck with plain plug mounting, \$1.00.

Net cost for mounting Little Giant Drill Chucks to lathe spindle, \$1.75.

# Discounts on Lathes and Accessories.

CATALOGUE No. 65.

**W. F. & JOHN BARNES CO.,**

ROCKFORD, ILLINOIS, U. S. A.

CATALOGUE NO. 65 PAGES		DISCOUNT PER CENT.
2-3	No. 4 Lathe. ....	10
4-5	No. 4½ Lathe. ....	10
6-7	No. 5 Lathe. ....	10
9	Compound Rest. ....	10
9	Follower Rest. ....	10
9	Hand Rest. ....	10
10-11	No. 5½ Lathe. ....	10
12-15	No. 13 Lathe. ....	10
16	Gear Cutting Attachment. ....	10
18	Foot Power Grinding and Polishing Machine. ....	10
19	Hand Turning Tools. ....	20
19	Lathe Tools. ....	20
20	Screw Chuck. ....	20
20	Spur Center. ....	20
20	Cup Center. ....	20
20	Square Center. ....	20
20	Crotch Center. ....	20
20	Drill Pad. ....	20
21	Lathe Dogs { Clamp Dogs. ....	20
	{ Common Dogs. ....	20
21	Turning Chisels and Gouges. ....	20
22	Chuck Drills. ....	20
22	Turner's Sizer. ....	20
22	Lathe Arbors. ....	20
22	Bell Centering Punch. ....	25
23	Westcott Little Giant Drill Chuck. ....	35
23	Almond Turret Head Lathe Tool. ....	20
24	Westcott Combination Lathe Chuck. ....	35
25	Skinner Lathe Chucks (Independent). ....	35
25	Skinner Lathe Chucks (Combination). ....	35
26	Cushman Independent Four Jaw Chuck. ....	35
26	Cushman Universal Geared Scroll Chuck. ....	25
27	Whiton Champion Scroll Chucks. ....	30
27	Whiton Champion Four Jaw Chucks. ....	35
28	Almond or Jacob's Drill Chuck. ....	25
28	Cushman Acme Drill Chuck. ....	30
29	Morse Twist Drills (1½ dia.). ....	60
30	Drill Sockets and Sleeves. ....	40
30	Emery Wheels. ....	60

Prices subject to change without notice.