

# SHELDON



**MODEL S-56**

**SHELDON MACHINE CO., Inc., 4258 N. KNOX AVE., CHICAGO 41, ILL.**



# **SHELDON**

Back Geared Screw Cutting  
**PRECISION LATHES**

## **LATHES**

**LATHE ATTACHMENTS**

**LATHE ACCESSORIES**

---

---

**ARBOR PRESSES • MILLING  
MACHINE VISES • SHAPER  
VISES • DRILL PRESS VISES**



**SHELDON MACHINE CO., INC.**

4240 - 4258 N. KNOX AVE.

CHICAGO, U. S. A.

CATALOG G-44



# SHELDON

## PRECISION LATHES

It was more than 20 years ago, when the first SHELDON Back-Geared, Screw Cutting Precision Lathes began attracting the attention of machine tool users, for here was a metal-cutting lathe, priced with lathes of the garage type, still having the appearance, design features, construction and general quality of precision tool equipment; lathes with the accuracy, operating range and convenience of much larger and more expensive machine tools, but without the excessive bulk and weight then considered essential to a machine tool.

Starting in a limited local market, SHELDON Lathes have since spread to all parts of the United States and to many foreign countries; having been sought out by machine tool buyers rather than seeking buyers. It has only been within the last year that, with a new plant and greatly increased production facilities, SHELDON Lathes have become available to everyone.

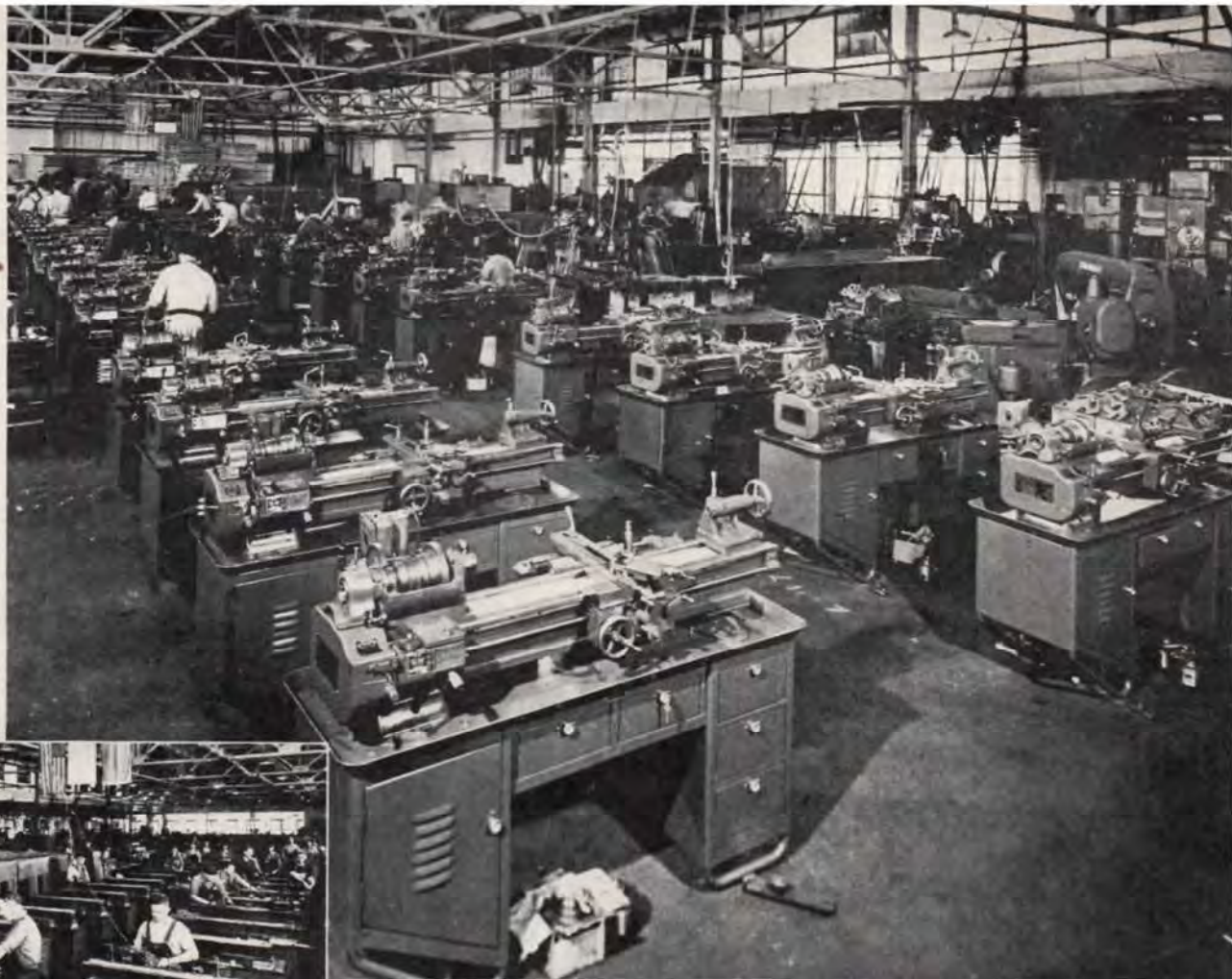
During this 20 years of careful and deliberate manufacture and development, SHELDON Lathes have been continuously improved and perfected. Today they stand out among moderate priced lathes as the quality lathes that are built to industrial standards: in weight, design, hand scraping, strength, convenience and permanent accuracy. New models have been added to meet new demands and the SHELDON Lathe Line now offers 10", 11" and 12" Precision Lathes in all standard and many special types, each with its full complement of accessories and attachments as well as a wide selection of drives. SHELDON Lathes are recommended for tool rooms, second operation production work, maintenance departments, and for general machining, as the finest lathes in the moderate price field.

When you buy a SHELDON Lathe you get not only more actual lathe per dollar but a true precision machine tool, built to do accurate work for years to come.

# CONTENTS

<b>SHELDON Precision Lathes</b>	PAGES
Lathe Construction Features.....	5 to 9
10" Lathe Models.....	10, 11 and 19, 20
11" Lathe Models.....	12 to 14, 21 to 23
12" Lathe Models.....	15 to 17, 24 to 26
Countershaft Belt Drive.....	10, 12 and 15
Overhead Motor Drive.....	11, 13, 14, 16 and 17
U-Type Underneath Motor Drive.....	19, 21, 23, 24 and 26
E-Type Underneath Motor Drive.....	20, 22 and 25
Bench Model Lathes.....	10 to 17, 27 to 29
Wooden Stand Bench Model.....	28
Metal Stand Bench Model.....	29
Special Lathes.....	28
<b>SHELDON Lathe Attachments and Accessories</b>	
Attachments.....	30 and 31
Accessories.....	32 to 35
Electrical Equipment.....	36
Lathe Floor Dimensions.....	37
Sheldon Lathe Specifications.....	38 and 39
Lathe Check Sheet.....	40
Lathe Set-up Instructions—How to Order.....	41
<b>SHELDON Arbor Presses.....</b>	<b>42 to 45</b>
<b>SHELDON Vises (Milling Machine and Shaper).....</b>	<b>46 and 47</b>
Index.....	48





This new SHELDON, modern monitor-type daylight plant is devoted entirely to the building of SHELDON Lathes, Arbor Presses and Vises. Situated in a new, clean and completely landscaped industrial district adjacent to one of Chicago's northside residential sections, SHELDON attracts superior craftsmen who take pride in building better lathes. Equipped with every modern manufacturing facility these expert machine tool builders produce in SHELDON Lathes quality precision tools that can be bought with confidence for they will meet the most exacting requirements.



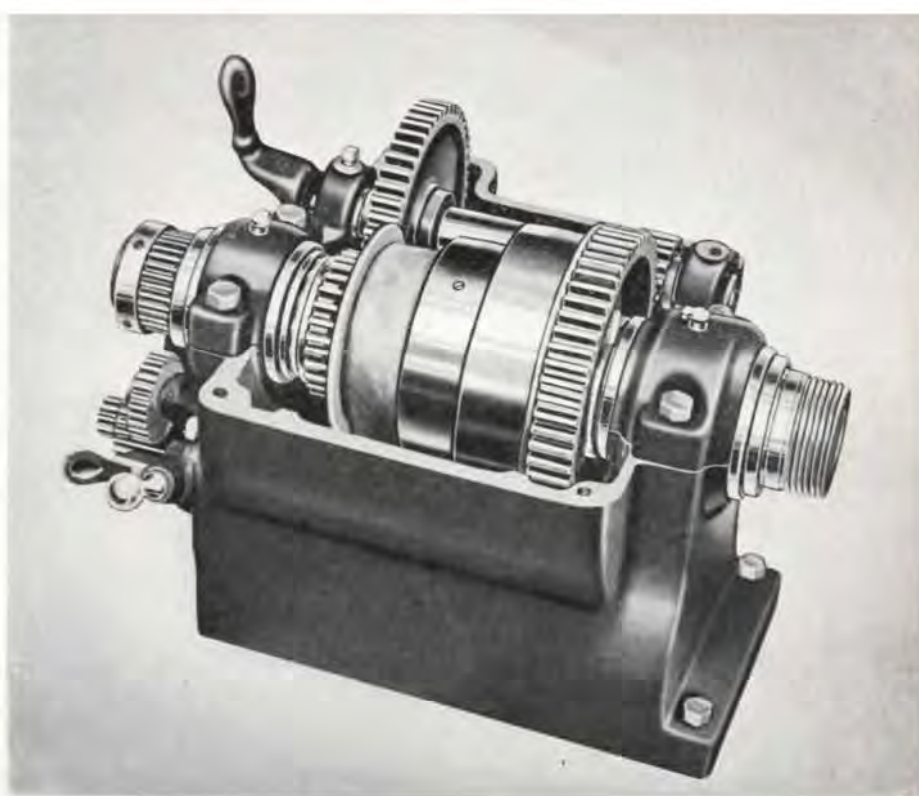


## BOWL TYPE HEADSTOCKS with Hardened and Ground Spindles

Headstocks of all SHELTON Lathes are of the safer, more fully enclosed webbed bowl or full bowl types and are heavily designed to give full support to the spindle bearings. Headstocks are of fine grain, semi-steel and are supported on the bed by hand scraped ways (one V-way and one Flat way) to which they are individually fitted and scraped to assure full contact and perfect alignment. Large face gear or bull gear and back gears are semi-steel and are accurately hob-cut. An improved bull gear lock-lever permits speedy engaging and disengaging the back gears. End gears are completely housed. The gear guard is divided so that the lower half can be swung aside and end gears changed without removing stock when feeding bars through the spindle collet (see Fig. 1).

The Headstock Spindles are exceptionally large. Machined from special analysis spindle steel, they are heat treated, hardened and accurately ground all over, including the spindle nose threads. Not only the exterior surface but also the taper hole in the spindle is ground — an important accuracy feature. A large  $1\frac{1}{8}$ " hole entirely through the spindle of Standard 10" and 11" Bronze Bearing Lathes permits the use of  $\frac{3}{4}$ " round collets. The 12" bronze bearing lathes are furnished with  $1\frac{3}{8}$ " hole through spindle which is also the size of the spindle hole of the 11" and 12" anti-friction headstock bearing lathe, thus permitting the use of 1" round collets when feeding rod or tubular stock through the spindle. On all standard SHELTON Lathes the spindle has a precision ball thrust bearing. Adjustable take-up nut is provided to eliminate end play.

SHELTON standard 10", 11" and 12" lathes are equipped with Phosphor Bronze Headstock Bearings — 11" and 12"



lathes are also obtainable with headstocks equipped with Precision Pre-loaded Ball, or Precision Roller Spindle Bearings. The Phosphor Bronze Bearings are high grade, of ample size and are hand scraped to the spindles and are adjustable to compensate for possible wear after long service. The Pre-loaded Ball Bearings and Roller Bearings are held to the closest precision tolerances obtainable. We believe no better bearings can be procured.

Ample provision for the lubrication of all bearings and moving parts is provided.

**Fig. 1.** SHELTON Lathes have a divided gear guard which permits the changing of end gears without removing stock, when feeding bar or tube through spindle.



Fig. 1



Sheldon Lathe Spindle  
With Bronze Bearing



Sheldon Lathe Spindle  
With Precision Ball Bearings



Sheldon Lathe Spindle  
With Precision Roller Bearings



# TAILSTOCK SPINDLES

**are Ground and Graduated. Tailstock has Set-Over Graduations for Taper Turning**

SHELDON Tailstocks are sturdily constructed, with long rigid bearing on beds to which they are hand fitted and are hand scraped to assure perfect alignment with headstocks. Tailstock top is tongued to the tailstock base and is accurately graduated for set-over for taper turning. Tailstock spindles are high carbon steel, large, ground, clearly graduated for drilling to closely held depths and accurately fitted to the tailstock barrels. The Spindle Binders are of improved design — lock spindles securely without altering alignment of centers. Tailstock centers are tool steel, hardened and ground all over and are self ejecting. Bodies of Tailstock are offset to permit setting the compound rests parallel to the bed. Standard Morse Taper hole in the spindles facilitates the use of drills and reamers having No. 2 Morse Taper Shanks.

## Semi-Steel Beds with Hand Scraped Ways (2 V-ways and 2 Flat ways)

Beds of SHELDON Lathes are of the inverted "V" type; are hard grained semi-steel castings: They are wide, deep and of industrial weight with frequent heavy cross or diagonal girts that give strength and hold the bed rigid against twist or torsional strains. All beds are rough planed and then seasoned before they are finish planed, after which wearing surfaces are hand scraped to master surface plates. All SHELDON Lathes have hand scraped ways — 2 V-ways and 2 Flat ways to assure balanced and uniform bearing of 1 V-way and 1 Flat way for the Headstock, Carriage and Tailstock, and for each, accurate alignment at all points on the bed. The headstocks are held in alignment by the rear V-ways and front flat ways; the carriages are held in alignment by the front V-ways and rear flat way; and, the tailstocks by the rear V-ways and front flat ways. Careful workmanship assures not only uniform but also maximum bearing of the Headstock, Carriage and the Tailstock on the bed ways.

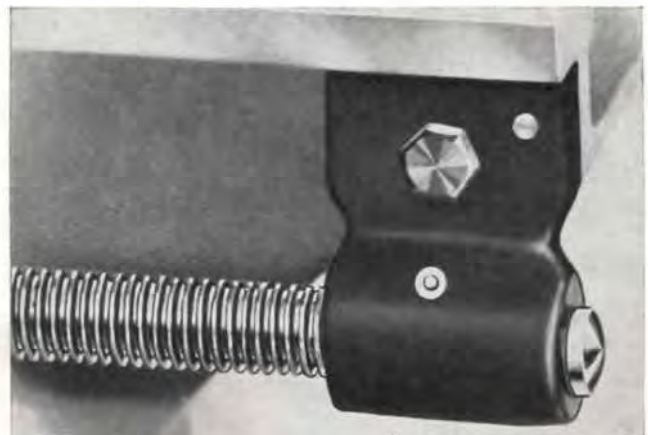


## SHELDON LEAD SCREWS

No lathe can be more accurate than its lead screw, because any fault in the lead screw is certain to be reproduced in the work. For this reason Sheldon lead screws are made (1st) of ample proportions, (2nd) of exceedingly tough and wear resisting, stress-relieving lead screw steel that has been ground and polished to minute tolerances. The thread on

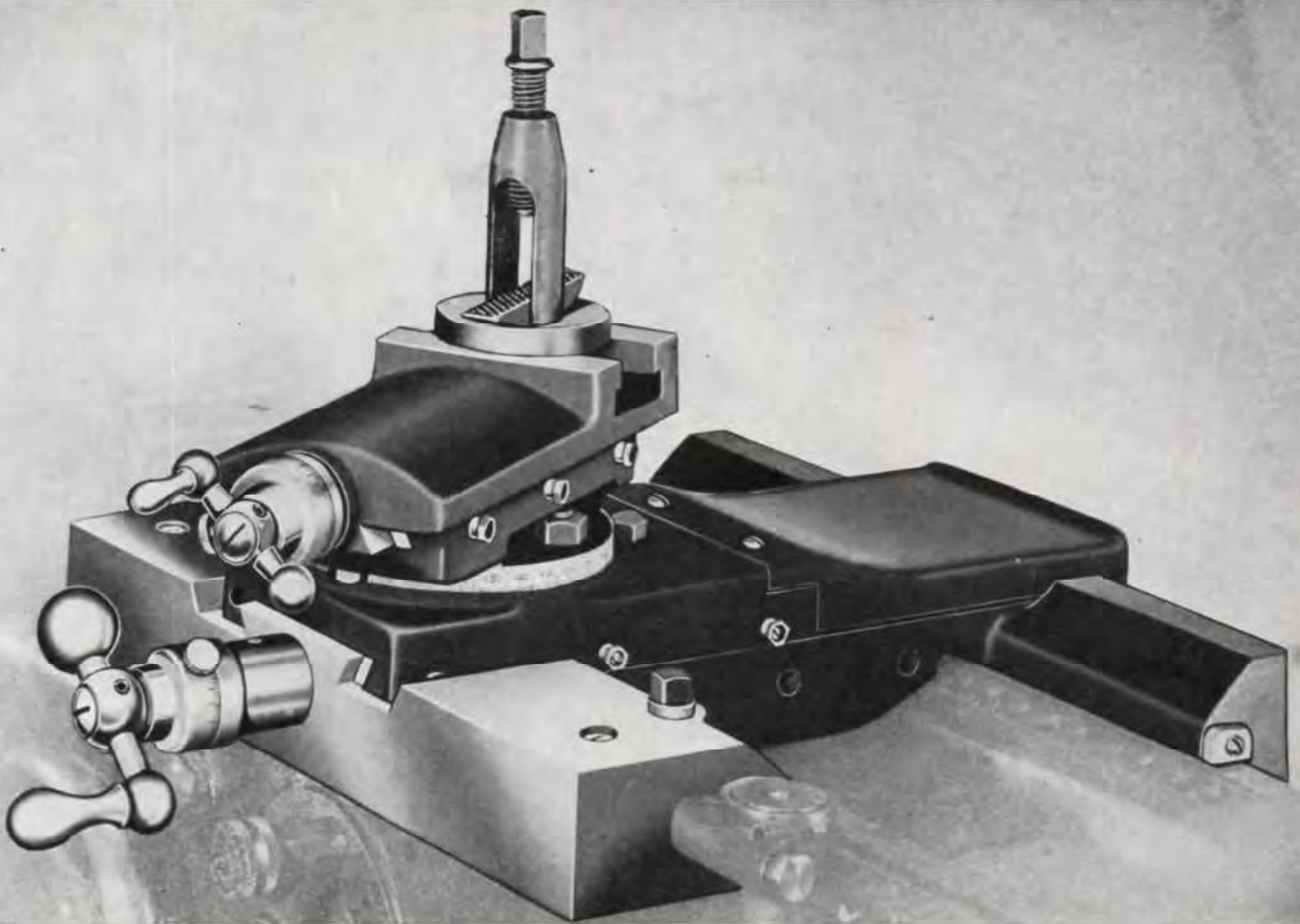


Sheldon lead screws is cut on a Pratt and Whitney Lead Screw Thread Miller—a special precision machine tool which duplicates to a polish finish a self-contained master lead screw. After milling each lead screw is tested from end to end for accuracy of lead, for form of thread and for pitch diameter. So made, Sheldon lead screws easily fulfill U. S. Government specifications for precision lathe lead screws.



You will note that lead screws of SHELDON Lathes are carried at full diameter clear through the supporting bracket thereby providing full strength at this vital point.





## CARRIAGES and COMPOUND RESTS

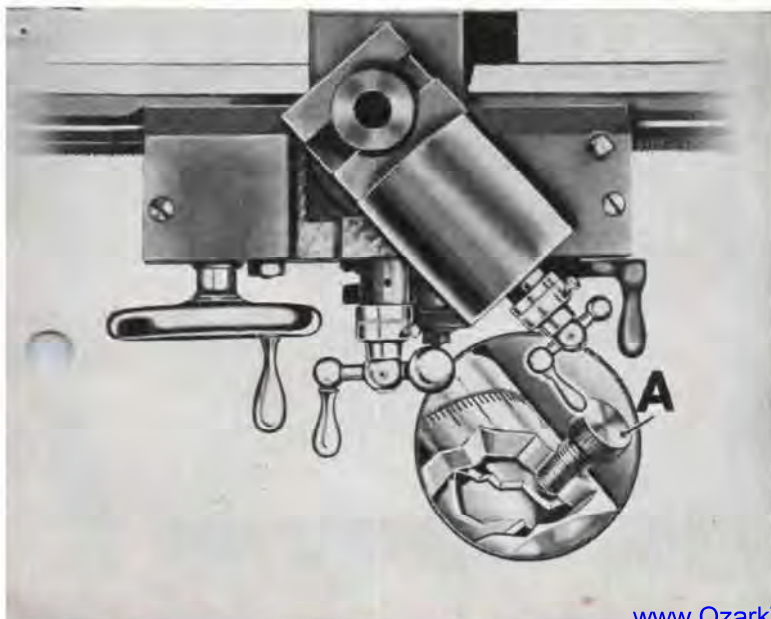
Carriages of SHELDON Lathes are large and rigid with long bearing on the bed. They are hand scraped their entire length to the front V-way and rear flat way upon which they rest. Felt wiper pads keep the ways clear of dust and chips and prevent dirt and grit from working in between the carriage and the bed. The cross bridge (or saddle) is wide, deep and heavily reinforced, providing ample and rigid support for the cross slide to withstand the pressure of the cutting tool. The cross slide is hand scraped square with the carriage saddle. Carriages are securely clamped to

the bed and are jig drilled and tapped to receive the Taper Attachment, Thread Chasing Dial, Chasing Stop and Follower Rest at any time. Carriage clamps are provided for securely clamping the carriage to the bed when the lathe is being used for facing or cutting-off operations.

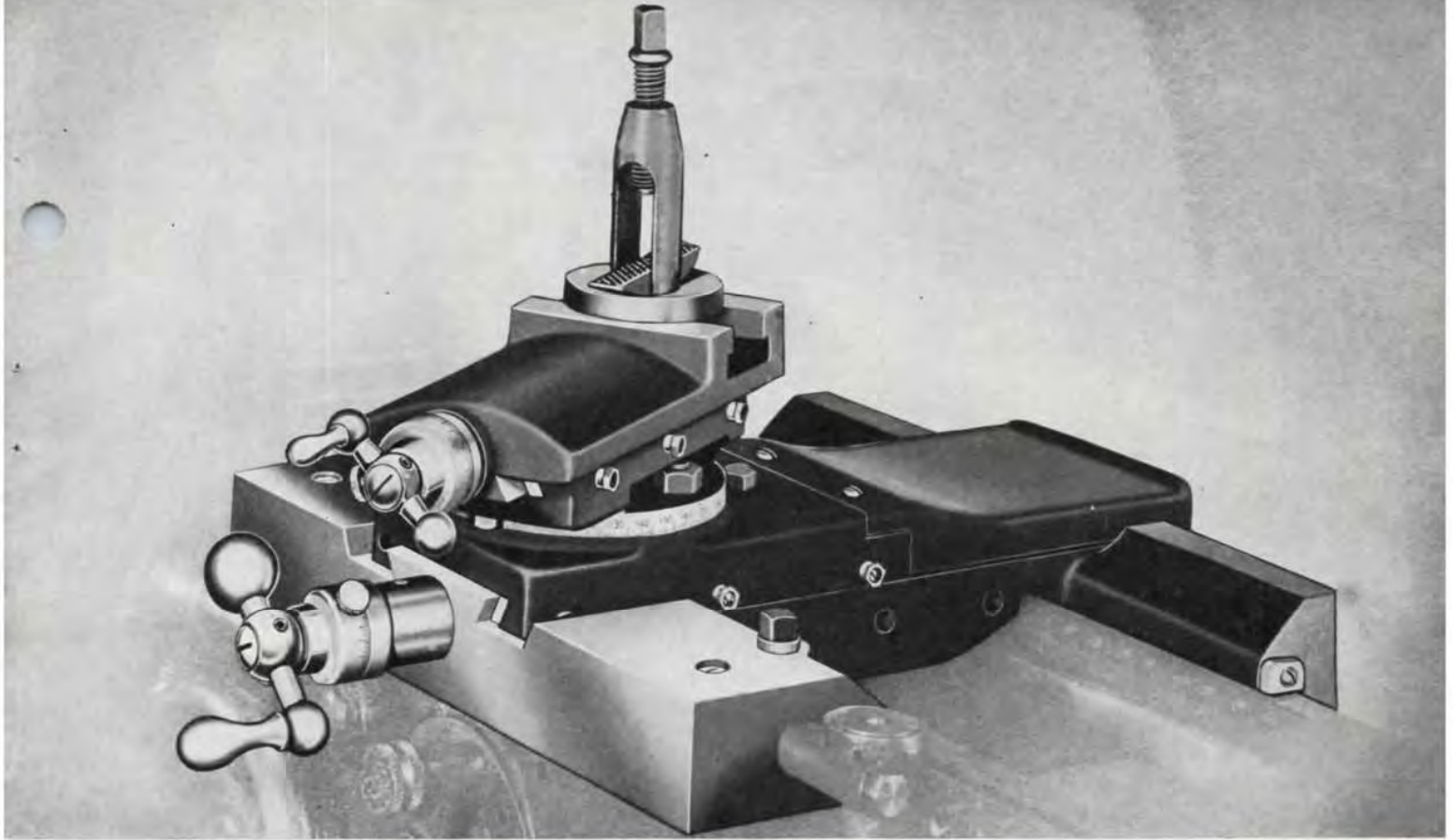
The cross slide is wide and long with deep dovetails. The swivel is graduated 180 degrees — 90 degrees each side of center. The top slide is heavy with a long deep dovetail that provides long travel. Both compound rest base and compound rest top dovetails are hand scraped. The compound rest swivels on a hardened steel stud. Both lower slide and top slide dovetails have hand scraped steel gibs to take up possible wear.

The cross feed and top slide screws have large size and fully visible micrometer dial collars graduated in thousands of an inch. The graduations on these micrometer collars are marked by an indexing machine which removes the metal in making each mark thus insuring accuracy and permanent visibility. They may be zeroed at any desired point. Collar set screws bear on a long inner sleeve which prevents pitting of shaft and resultant inaccuracy (Note A in illustration). All crank handles are large size — fit comfortably in the hand.

Tool posts are standard round type with adjustable rocker wedge, and screw is hardened to prevent upsetting.







## CARRIAGES and COMPOUND RESTS

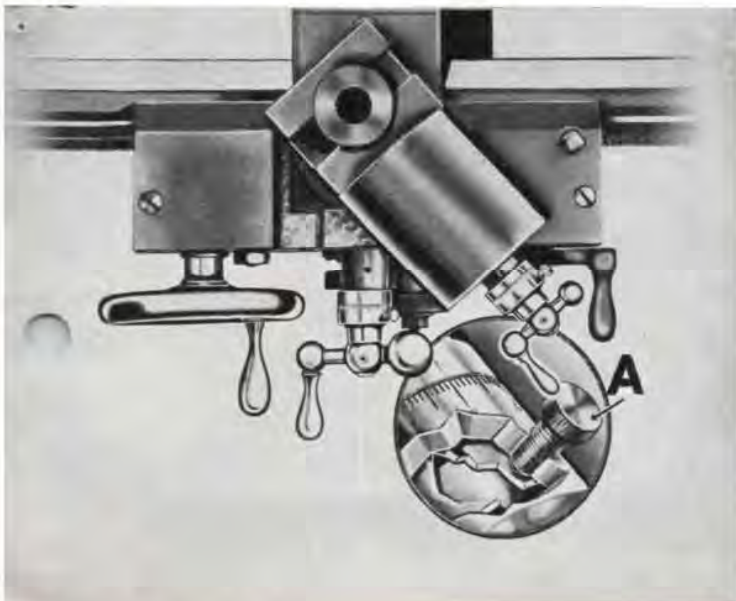
Carriages of SHELDON Lathes are large and rigid with long bearing on the bed. They are hand scraped their entire length to the front V-way and rear flat way upon which they rest. Felt wiper pads keep the ways clear of dust and chips and prevent dirt and grit from working in between the carriage and the bed. The cross bridge (or saddle) is wide, deep and heavily reinforced, providing ample and rigid support for the cross slide to withstand the pressure of the cutting tool. The cross slide is hand scraped square with the carriage saddle. Carriages are securely clamped to

the bed and are jig drilled and tapped to receive the Taper Attachment, Thread Chasing Dial, Chasing Stop and Follower Rest at any time. Carriage clamps are provided for securely clamping the carriage to the bed when the lathe is being used for facing or cutting-off operations.

The cross slide is wide and long with deep dovetails. The swivel is graduated 180 degrees — 90 degrees each side of center. The top slide is heavy with a long deep dovetail that provides long travel. Both compound rest base and compound rest top dovetails are hand scraped. The compound rest swivels on a hardened steel stud. Both lower slide and top slide dovetails have hand scraped steel gibs to take up possible wear.

The cross feed and top slide screws have large size and fully visible micrometer dial collars graduated in thousands of an inch. The graduations on these micrometer collars are marked by an indexing machine which removes the metal in making each mark thus insuring accuracy and permanent visibility. They may be zeroed at any desired point. Collar set screws bear on a long inner sleeve which prevents pitting of shaft and resultant inaccuracy (Note A in illustration). All crank handles are large size — fit comfortably in the hand.

Tool posts are standard round type with adjustable rocker wedge, and screw is hardened to prevent upsetting.







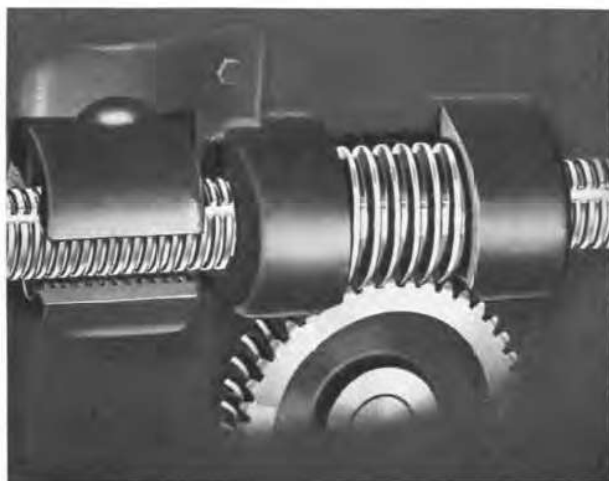
## Double Walled Apron Adds Strength and Rigidity

SHELDON Lathes may be furnished with either plain apron or Worm Feed Apron with Power Cross Feed. Both types are heavily built with long bearing surface on the carriage to which they are securely doweled to assure perfect alignment with lead screw. Gears and worms are hob-cut. Oiling of the moving parts is from the front of the apron — adequate oil cups and quill are provided.

**Double Wall Apron.** Worm Feed Aprons with Power Cross Feed are the full box type with double walls that provide bearing for both ends of gear shafts and hold them rigidly and permanently in perfect alignment under the heaviest strain. Internal gears are continuously lubricated

by a reservoir of oil in the apron. Both power and longitudinal feeds are actuated by a worm that is driven by a splined lead screw. The thread of the lead screw is reserved for thread cutting only, engagement of which is by means of a double half nut that eliminates wear on lead screw, assuring greater thread cutting accuracy and longer lead screw life.

The apron controls are of standard industrial type — are “natural” to the experienced lathe operator. The hand wheel that engages the longitudinal rack is large for easy and accurate feed. Engagement of power longitudinal feed or power cross feed is by means of a smooth action cone clutch and a longitudinally moving control handle. A right movement of the control lever engages the carriage feed, a left movement engages the cross feed. Right and left positions are separated by a neutral (disengaged) position which with spring plunger selector prevents the accidental shifting from cross feed to longitudinal movement or vice versa. The lever that engages the double half nut with the lead screw for thread chasing carries a safety mechanism that locks both half nuts out of engagement when the spline feed is in use. Both power feeds are through a cone clutch which is exceptionally smooth in action and engages or releases instantly.



Power longitudinal and power cross feeds are driven by a sturdy worm which in turn is driven by spline in lead screw. The double half-nuts are used for thread-cutting only — are locked out of engagement automatically when either power feed is used.

**Plain Aprons** are heavily built having a wide bearing on the carriage and large hand wheel for longitudinal feed. Both power feed and thread cutting are by means of a hand lever that engages a double half nut.



# SEMI-QUICK OR FULL QUICK CHANGE GEAR BOXES

(All SHELDON Lathes Have Instant Speed Changes)

All standard model SHELDON Lathes come equipped with either a Semi-Quick Change or Full Quick Change Gear Box.

The Semi-Quick Change Gear Box provides three instant changes of feed — *coarse, medium or fine* by means of a convenient lever on the front of the

gear box. Changes can be made while lathe is running. With pick-off change gears there is provided a thread cutting range of from 4 to 80 threads per inch.

Gears and shafts are steel. Gears are hob-cut with corners rounded.

## FULL QUICK CHANGE GEAR BOX

The Full Quick Change Gear Box is recommended for all toolrooms, class rooms or other work where maximum versatility is an important factor. This gear box provides 48 different right hand or left hand changes. Screw threads range from 4 to 224 threads per inch. All changes of thread and feed are made from the operating side of the lathe by simply shifting the lever on top of the gear box

and the single tumbler lever located conveniently at the front of the gear box. No pick-off gears or loose gears of any kind are required . . . none to lose, mislay, constantly handle.

The main automatic power longitudinal and cross feeds are also listed on the index chart — attached to the quick change gear box.



Front View

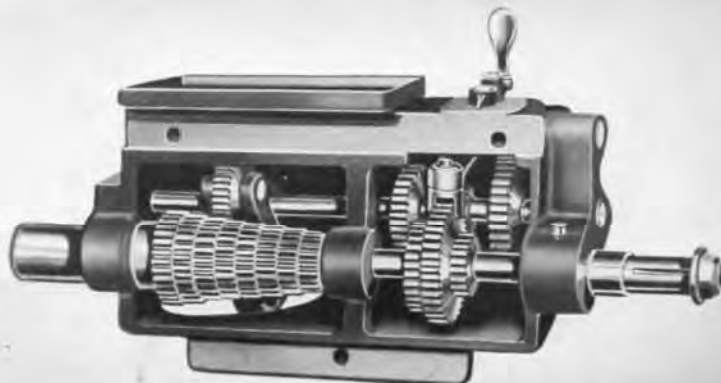


Rear View

**SHELDON Semi-Quick Change Gear Box**



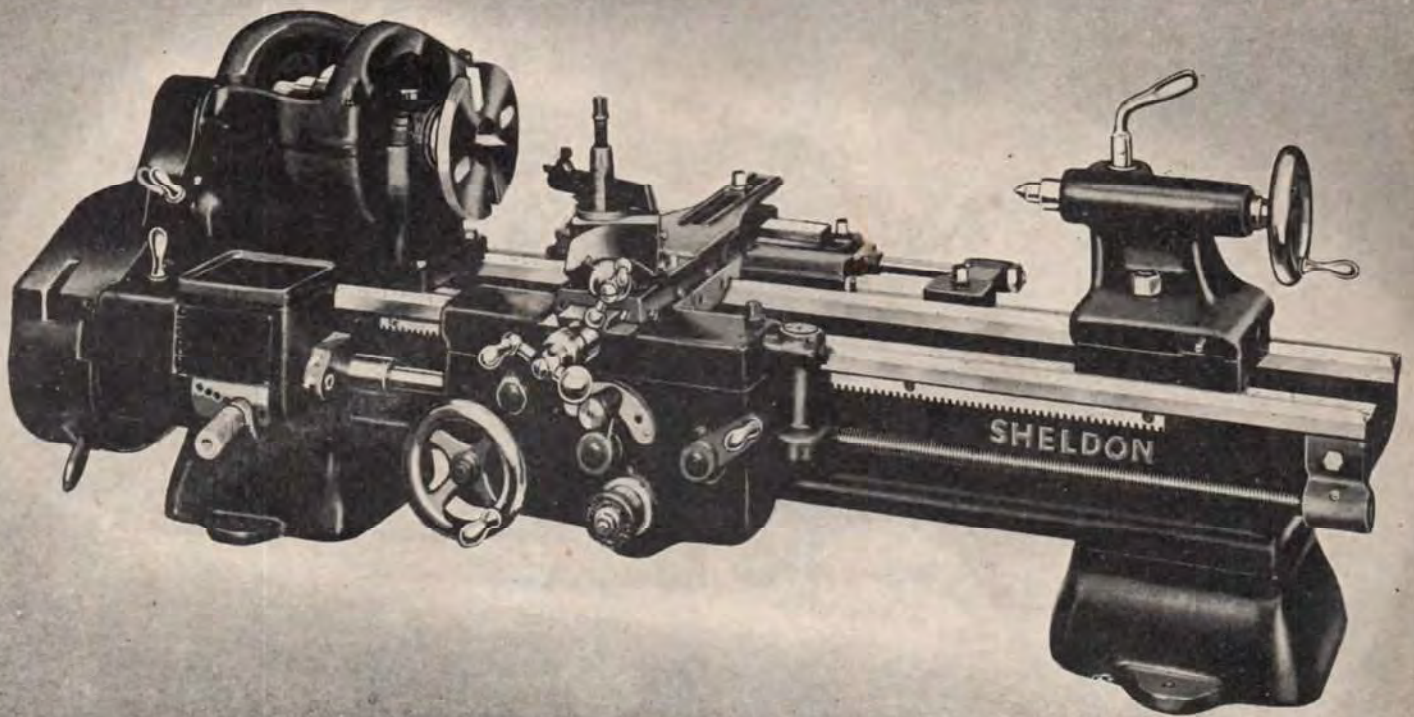
Front View



Rear View

**SHELDON Full Quick Change Gear Box**





## 10" SHELDON PRECISION LATHES

**3/4" Collet Capacity, Bronze Bearings, Countershaft Drive**

These 10" swing precision lathes come in many types. Built to industrial standards, with all the quality features described on the preceding pages, these lathes have large hardened steel spindles (1 1/8" hole, 3/4" round collet capacity) that are ground all over, hand scraped phosphor bronze bearings and hand scraped ways. We believe them to be the finest 10" lathes available in their price range.

**Standard Equipment includes:** Motor drive countershaft (Fig. 4), 3-step cone pulley, change gears or quick change gear box, small face plate, compound rest, tool post, thread chasing dial, headstock and tailstock centers, center sleeve, necessary wrenches, and book "The Care and Operation of a Lathe."

Countershafts furnished with these lathes are of the motor drive type (Fig. 4) which combines a 3-step flat belt cone pulley with a 10" V-belt drive sheave. A matching 2 1/4" sheave is provided for motor shaft. If specified, the following alter-

nate countershafts may be provided at slight additional cost: (Fig. 3) Overhead type with matching 3-step cones for 1 1/4" flat belt drive and double 6" pulleys—1 tight pulley and 1 loose pulley; or (Fig. 2) Double Friction countershaft with two friction clutch pulleys requiring 2 drive belts—one open belt and one cross belt providing means for instantly reversing direction of the spindle.

For 10" lathe specifications see specification pages; for chucks, tools and accessories see accessory pages.



Fig. 2



Fig. 3



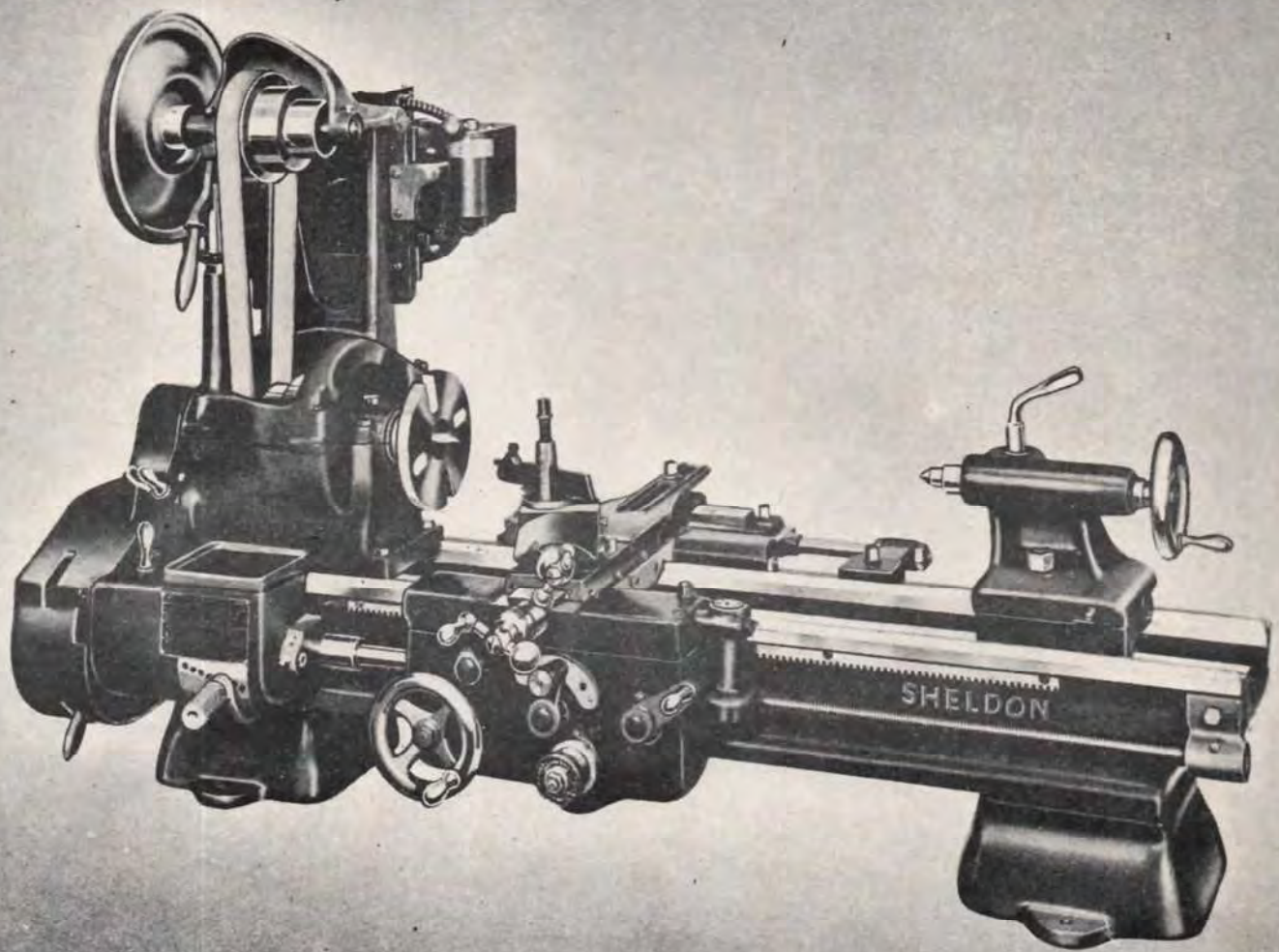
Fig. 4

With Semi-Quick Change Gears	Swing	Center Distance	Bed Lengths	Shipping Weight Lbs. Crated	With Full Quick Change Gears
1020-BC	10 1/8	20	38	369	1020-BCQ
1020-BCW	10 1/8	20	38	384	1020-BCWQ
1026-BC	10 1/8	26	44	416	1026-BCQ
1026-BCW	10 1/8	26	44	431	1026-BCWQ
1042-BC	10 1/8	42	62	509	1042-BCQ
1042-BCW	10 1/8	42	62	524	1042-BCWQ
1020-FC	10 1/8	20	38	409	1020-FCQ
1020-FCW	10 1/8	20	38	424	1020-FCWQ
1026-FC	10 1/8	26	44	456	1026-FCQ
1026-FCW	10 1/8	26	44	471	1026-FCWQ
1042-FC	10 1/8	42	62	549	1042-FCQ
1042-FCW	10 1/8	42	62	564	1042-FCWQ

CODE: In Catalog Numbers, "B" indicates Bench Legs, "C" indicates Counter Shaft, "F" indicates Floor Legs, "Q" indicates Full Quick Change Gear Box, "W" indicates Worm Feed Apron with Power Cross Feed.







## 10" SHELDON PRECISION LATHES

**3/4" Collet Capacity, Bronze Bearings, Overhead Motor Drive**

These lathes come in three bed lengths; with Bench Legs or Floor Legs; Semi-Quick Change Gears or Full Quick Change Gears; and Plain Aprons, or Worm Feed Aprons with Power Cross Feed. This enables the lathe buyer to obtain the desired features without paying for those he does not need.

**Standard Equipment** included in the price of these lathes consists of: overhead motor drive attachment (less motor and reversing drum switch), 3 step cone pulley, change gears or gear box, small face plate, compound rest, tool post, thread chasing dial, headstock and tailstock centers, center sleeve, necessary wrenches, and book, "The Care and Operation of a Lathe." (Taper attachment illustrated above is not included.)

**Overhead Motor Drive Attachment.** This Attachment is a very simple and efficient application for small lathes. A bracket mounted on top of

headstock in place of regular gear guards provides both the motor seat and supporting members of adjustable countershaft bracket. The latter is adjustable for shifting or tightening belts by means of a cam lever. Motor V-belt and flat belt are both adjustable for tension. All belts, gears and other moving parts are carefully guarded. The Overhead Motor Drive Attachment comes complete with Flat Belt for Headstock Cone, 10" V-belt Pulley, 2 1/4" V-belt Motor Pulley and a V-belt.

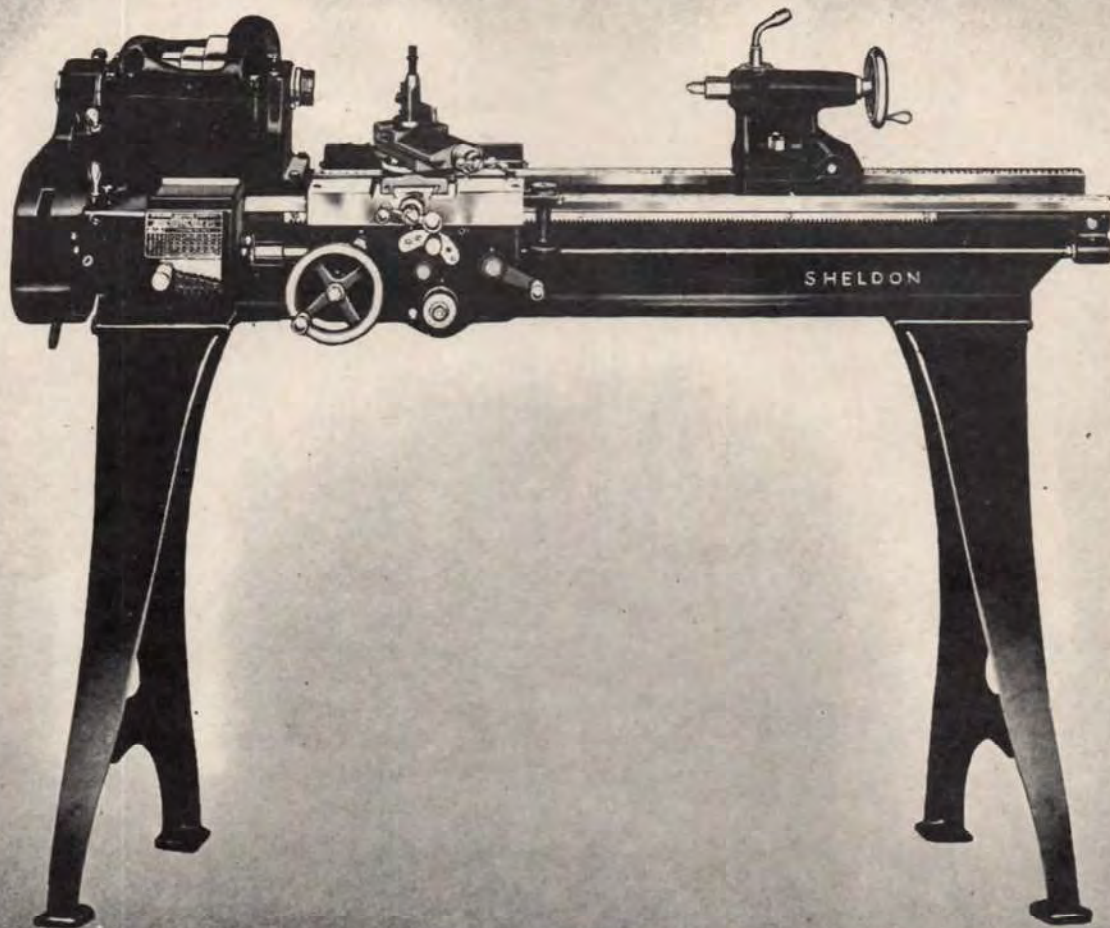
For 10" lathe specifications see specification page; for chucks, tools and attachments see accessory pages.



With Semi-Quick Change Gears	Swing	Center Distance	Bed Lengths	Shipping Weight	With Full-Quick Change Gears
1020-BM	10 1/2	20	38	388	1020-BMQ
1020-BMW	10 1/2	20	38	403	1020-BMWQ
1026-BM	10 1/2	26	44	435	1026-BMQ
1026-BMW	10 1/2	26	44	450	1026-BMWQ
1042-BM	10 1/2	42	62	528	1042-BMQ
1042-BMW	10 1/2	42	62	543	1042-BMWQ
1020-FM	10 1/2	20	38	428	1020-FMQ
1020-FMW	10 1/2	20	38	443	1020-FMWQ
1026-FM	10 1/2	26	44	475	1026-FMQ
1026-FMW	10 1/2	26	44	490	1026-FMWQ
1042-FM	10 1/2	42	62	568	1042-FMQ
1042-FMW	10 1/2	42	62	583	1042-FMWQ

**CODE:** "M" in Model Number indicates Overhead Motor Drive, "B" indicates Bench Legs, "F" indicates Floor Legs, "W" indicates Worm Feed Apron with Power Cross Feed, "Q" indicates Full Quick Change Gear Box.





## 11" SHELDON PRECISION LATHES

$\frac{3}{4}$ " Collet Capacity, Bronze Bearings, Countershaft Drive

These 11-inch swing precision lathes are popular in machine shops, tool rooms and maintenance departments because of their handiness, convenient size and permanent accuracy. They are moneymakers on production work too, especially when equipped with a hand lever collet attachment on second operation work for they are easy to operate and stand up to the most grueling runs. Furnished in both floor and bench models with a choice of gear boxes or aprons. Improved Feature includes large hole through spindle that permits a maximum collet capacity of  $\frac{3}{4}$ ".

**Standard Equipment** includes: motor drive countershaft (fig. 4), (page 10), 3 step cone pulley, change gears or quick change gear box, small face plate, compound rest, tool post, thread chasing dial, headstock and tailstock center, center sleeves, nec-

essary wrenches, and book "The Care and Operation of a Lathe."

**Countershafts** furnished with these lathes are of the motor drive type (fig. 4), (page 10), which combine a 3-step flat belt cone pulley with a 10" V-belt sleeve. A matching  $2\frac{1}{2}$ " sleeve is provided for motor shaft. If specified the following alternate countershafts may be furnished at slight additional cost: (fig. 3) overhead type with matching 3-step cones for  $1\frac{1}{4}$ " flat belt drive and double 6" pulleys—1 tight pulley and 1 loose pulley; or (fig. 2) double friction countershaft with two friction clutch pulleys requiring two drive belts—1 open and 1 cross belt providing means for instantly reversing direction of the spindle.

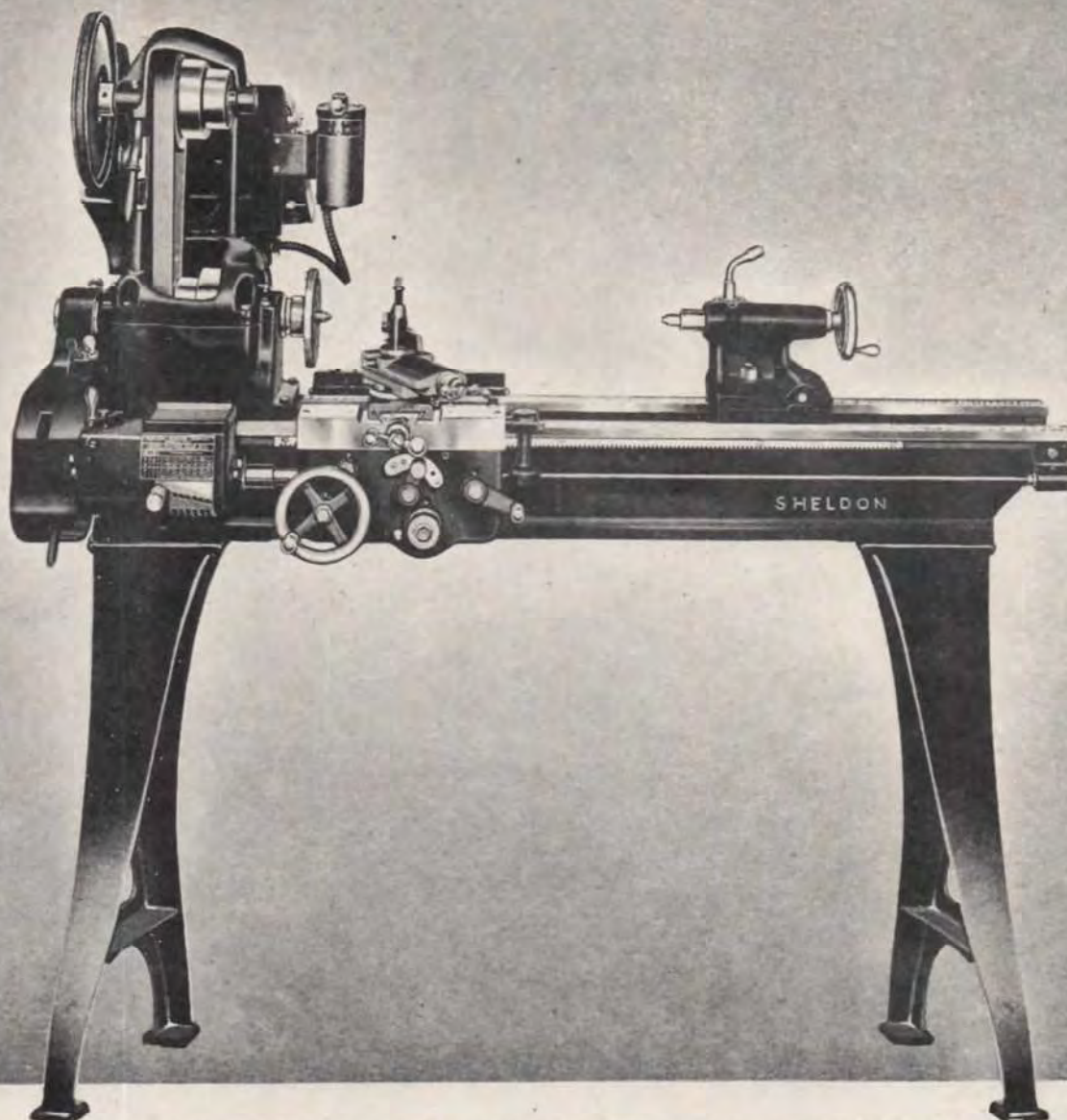
For lathe specifications see specification pages; for accessories see accessory pages.



With Semi-Quick Change Gears and Aprons	Swing	Center Distance	Bed Lengths	Shipping Weight	With Full Quick Change Gears
1124-BC	11 $\frac{1}{4}$	24	44	486	1124-BCQ
1124-BCW	11 $\frac{1}{4}$	24	44	496	1124-BCWQ
1136-BC	11 $\frac{1}{4}$	36	56	532	1136-BCQ
1136-BCW	11 $\frac{1}{4}$	36	56	542	1136-BCWQ
1140-BC	11 $\frac{1}{4}$	40	62	579	1140-BCQ
1140-BCW	11 $\frac{1}{4}$	40	62	589	1140-BCWQ
1148-BC	11 $\frac{1}{4}$	48	70	641	1148-BCQ
1148-BCW	11 $\frac{1}{4}$	48	70	651	1148-BCWQ
1124-FC	11 $\frac{1}{4}$	24	44	570	1124-FCQ
1124-FCW	11 $\frac{1}{4}$	24	44	580	1124-FCWQ
1136-FC	11 $\frac{1}{4}$	36	56	616	1136-FCQ
1136-FCW	11 $\frac{1}{4}$	36	56	626	1136-FCWQ
1140-FC	11 $\frac{1}{4}$	40	62	663	1140-FCQ
1140-FCW	11 $\frac{1}{4}$	40	62	673	1140-FCWQ
1148-FC	11 $\frac{1}{4}$	48	70	725	1148-FCQ
1148-FCW	11 $\frac{1}{4}$	48	70	735	1148-FCWQ

Code: In Model Numbers "B" indicates Bench Legs, "F" indicates Floor Legs, "W" indicates Worm Feed Apron with Power Cross Feed, "Q" indicates Full Quick Change Gear Box, "C" indicates counter-shaft.





## 11" SHELDON PRECISION LATHES

3/4" Collet Capacity, Bronze Bearings, Overhead Motor Drive

These entirely self-contained lathes save floor space—require neither lineshafting nor extra wall clearance for back drives or auxiliary pedestals. Furnished in four bed lengths, in both floor and bench types with a choice of either Semi-Quick or Full Quick Change Gears and either Plain aprons or Worm Feed Aprons with Power Cross Feed.

**Standard Equipment** included in the price of these lathes consists of: overhead motor drive attachment (less motor and reversing drum switch), 3-step cone pulley, change gears or gear box, small face plate, compound rest, tool post, thread chasing dial, headstock and tailstock centers, center sleeve, necessary wrenches, and book "The Care and Operation of a Lathe."

**Overhead Motor Drive Attachment.** A bracket mounted directly on top of the headstock in place of the regular gear guards supplies the motor seat and also the supporting members of the adjustable countershaft bracket. By means of a cam lever, the countershaft bracket is adjustable for shifting or tightening the belt. Motor can be adjusted for belt tension and is connected to countershaft by means of a V-Belt. All belts, gears and other moving parts are carefully guarded. It is furnished complete with Flat Belt for Headstock Cone, 10-inch V-Belt Pulley, 2 1/4" V-Belt Motor Pulley and a V-Belt.

For lathe specifications see specification page; for chucks, tools, attachments and accessories see accessory pages.

With Semi-Quick Change Gears	Swing	Center Distance	Bed Lengths	Shipping Weights	With Full Quick Change Gears
1124-BM	11 3/4	24	44	505	1124-BMQ
1124-BMW	11 3/4	24	44	515	1124-BMWQ
1136-BM	11 3/4	36	56	551	1136-BMQ
1136-BMW	11 3/4	36	56	581	1136-BMWQ
1140-BM	11 3/4	40	62	598	1140-BMQ
1140-BMW	11 3/4	40	62	608	1140-BMWQ
1148-BM	11 3/4	48	70	660	1148-BMQ
1148-BMW	11 3/4	48	70	670	1148-BMWQ
1124-FM	11 3/4	24	44	589	1124-FMQ
1124-FMW	11 3/4	24	44	599	1124-FMWQ
1136-FM	11 3/4	36	56	635	1136-FMQ
1136-FMW	11 3/4	36	56	645	1136-FMWQ
1140-FM	11 3/4	40	62	682	1140-FMQ
1140-FMW	11 3/4	40	62	692	1140-FMWQ
1148-FM	11 3/4	48	70	744	1148-FMQ
1148-FMW	11 3/4	48	70	754	1148-FMWQ

Code: "M" in Model Number indicates Overhead Motor Drive. "B" indicates Bench Legs, "F" indicates Floor Legs, "W" indicates Worm Feed Apron with Power Cross Feeds, "Q" indicates Full Quick Change Gear Box.







## 11" SHELDON PRECISION LATHES

### 1" Collet Capacity, Ball or Roller Bearings, Overhead Motor Drive

Important among SHELDON Lathes are those with the Anti-Friction Bearing Headstocks — preloaded precision ball spindle bearings or precision roller bearings that eliminate bearing wear, assure permanently accurate spindle alignment, reduced friction, increased power delivery to the tool and permit efficient higher speed operation.

**Specially Selected Bearings.** SHELDON demands extreme precision in their Anti-Friction bearings. Only the finest Anti-Friction Spindle Bearings obtainable are used and these are held to closest precision tolerances found in any lathe.

**Larger Collet Capacity.** These Anti-Friction Bearing Headstocks have larger spindles and increased collet capacity (1 $\frac{3}{8}$ " hole, collet capacity 1" Round).

Standard Equipment includes: overhead motor drive attachment (less motor and reversing drum switch), 3-step cone pulley, change gears or quick change gear box, small face plate, compound rest, tool post, thread chasing dial, headstock and tailstock centers, center sleeve, necessary wrenches, and book "The Care and Operation of a Lathe."

**Motor Drive Attachment.** This attachment is correspondingly "Anti-Friction"—the countershaft runs in needle bearings. The drive attachment is similar to that described on the preceding page, but is wider and heavier. For lathe specifications see specifications page; for chucks, tools and attachments see accessory page.

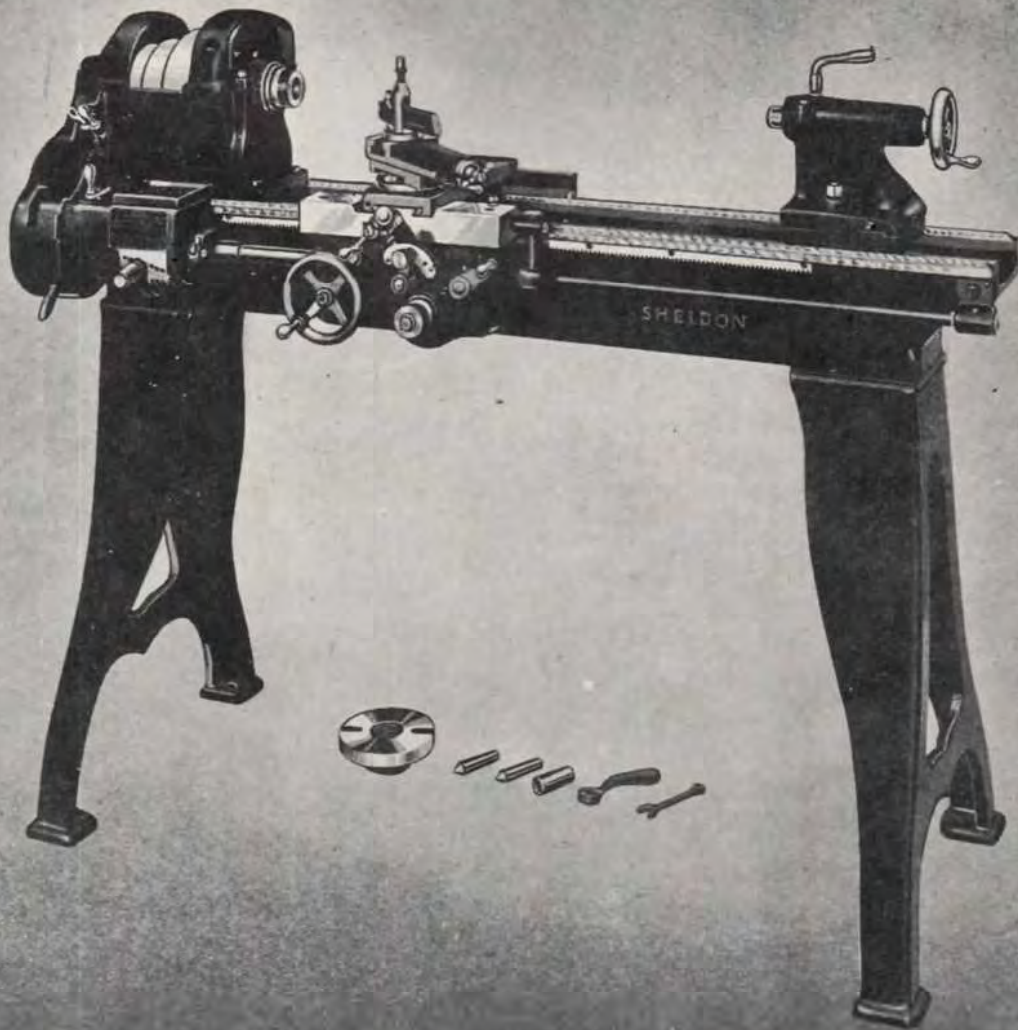


With Semi-Quick Change Gears	Swing	Center Distance	Bed Lengths	Shipping Weight	With Full Quick Change Gears
BB-1124 BM	11 $\frac{3}{4}$	24	44	538	BB-1124 BMQ
BB-1124 BMW	11 $\frac{3}{4}$	24	44	548	BB-1124 BMWQ
BB-1136 BM	11 $\frac{3}{4}$	36	56	584	BB-1136 BMQ
BB-1136 BMW	11 $\frac{3}{4}$	36	56	594	BB-1136 BMWQ
BB-1140 BM	11 $\frac{3}{4}$	40	62	631	BB-1140 BMQ
BB-1140 BMW	11 $\frac{3}{4}$	40	62	641	BB-1140 BMWQ
BB-1148 BM	11 $\frac{3}{4}$	48	70	693	BB-1148 BMQ
BB-1148 BMW	11 $\frac{3}{4}$	48	70	703	BB-1148 BMWQ
BB-1124 FM	11 $\frac{3}{4}$	24	44	622	BB-1124 FMQ
BB-1124 FMW	11 $\frac{3}{4}$	24	44	632	BB-1124 FMWQ
BB-1136 FM	11 $\frac{3}{4}$	36	56	668	BB-1136 FMQ
BB-1136 FMW	11 $\frac{3}{4}$	36	56	678	BB-1136 FMWQ
BB-1140 FM	11 $\frac{3}{4}$	40	62	715	BB-1140 FMQ
BB-1140 FMW	11 $\frac{3}{4}$	40	62	725	BB-1140 FMWQ
BB-1148 FM	11 $\frac{3}{4}$	48	70	777	BB-1148 FMQ
BB-1148 FMW	11 $\frac{3}{4}$	48	70	787	BB-1148 FMWQ

CODE: In catalog number "B" indicates Bench Legs, "F" indicates Floor Legs, "M" indicates Overhead Motor Drive, "W" indicates Worm Feed Apron with Power Cross Feed, "BB" indicates Pre-loaded Ball Bearing Headstock, "IRB" indicates Roller Bearing, replacing code "BB", "Q" indicates Quick Change Gear Box.







## 12" SHELDON PRECISION LATHES

1" Collet Capacity, Bronze Bearings, Countershaft Drive

The SHELDON 12-inch Lathe is proportionally heavier than the 10-inch and 11-inch lathes; larger and heavier headstocks, larger spindles with  $1\frac{3}{8}$ " hole providing round collet capacity of 1". The tailstock is large and of heavy design and is offset to give clearance to compound rest when operating at minimum distance from the headstock. These lathes, with a full  $12\frac{1}{4}$ " swing and an 8" swing over the carriage, come in four bed lengths with either bench or floor legs; Plain Aprons, or Double Wall Aprons with Power Cross Feed; Semi-Quick or Full Quick Change Gear Boxes.

Standard Equipment includes: motor drive countershaft (Fig. 4), 3-step cone pulley, change gears or quick change gear box, small face plate, compound rest, tool post, thread chasing

dial, headstock and tailstock centers, center sleeve, necessary wrenches, and book "The Care and Operation of a Lathe." For lathe specifications see specification page; for chucks, tools and attachments see accessory pages.

Fig. 2



Fig. 3



Fig. 4



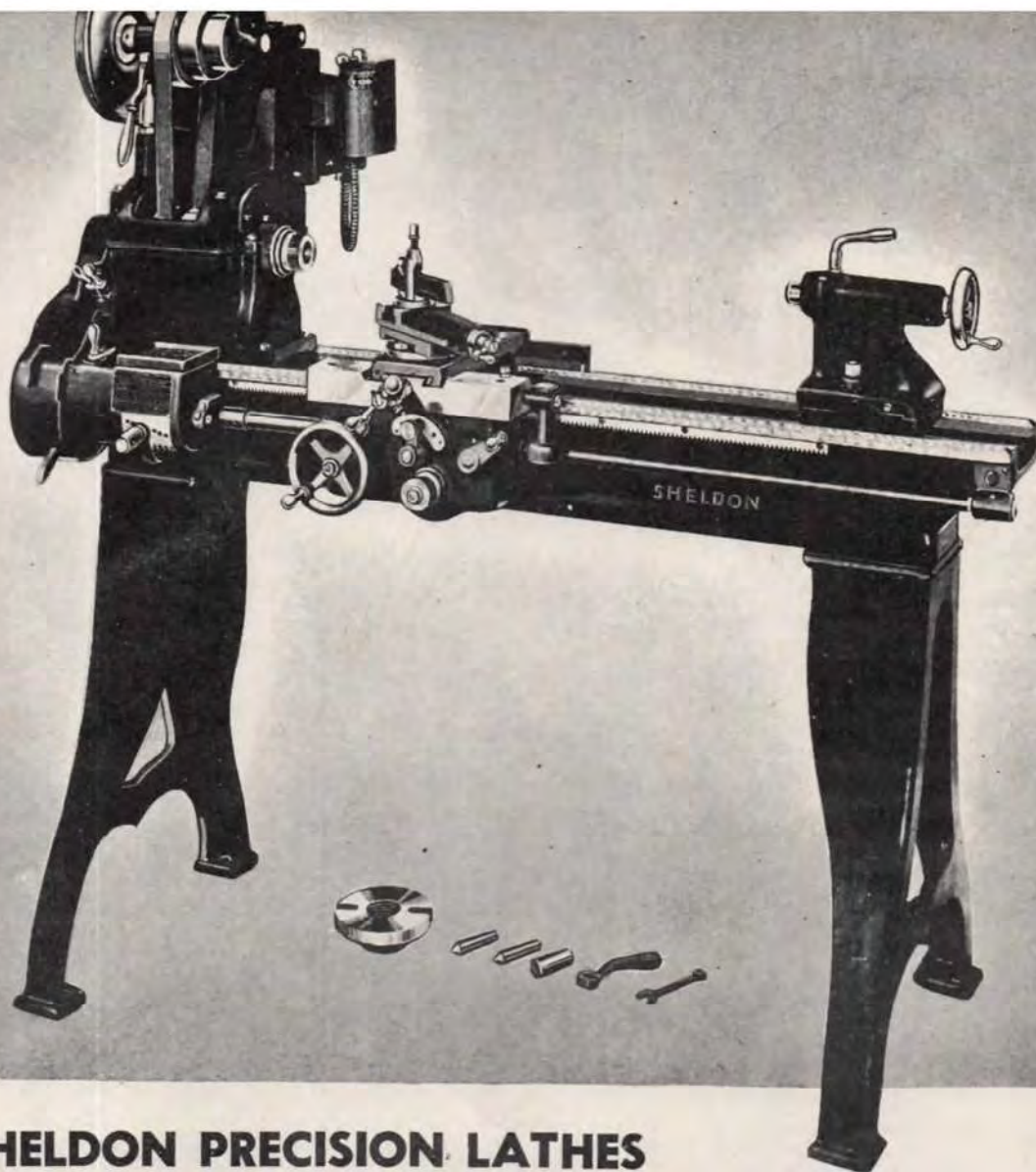
Note: Fig. 4 shows standard drive; Figs. 2 and 3 furnished only when specified.

With Semi-Quick Change Gears	Swing	Center Distance	Bed Lengths	Shipping Weight	With Full-Quick Change Gears
1224-BC	12 $\frac{1}{4}$ "	24	44	514	1224-BCQ
1224-BCW	12 $\frac{1}{4}$ "	24	44	524	1224-BCWQ
1236-BC	12 $\frac{1}{4}$ "	36	56	560	1236-BCQ
1236-BCW	12 $\frac{1}{4}$ "	36	56	570	1236-BCWQ
1240-BC	12 $\frac{1}{4}$ "	40	62	607	1240-BCQ
1240-BCW	12 $\frac{1}{4}$ "	40	62	717	1240-BCWQ
1248-BC	12 $\frac{1}{4}$ "	48	70	669	1248-BCQ
1248-BCW	12 $\frac{1}{4}$ "	48	70	679	1248-BCWQ
1224-FC	12 $\frac{1}{4}$ "	24	44	598	1224-FCQ
1224-FCW	12 $\frac{1}{4}$ "	24	44	608	1224-FCWQ
1236-FC	12 $\frac{1}{4}$ "	36	56	644	1236-FCQ
1236-FCW	12 $\frac{1}{4}$ "	36	56	654	1236-FCWQ
1240-FC	12 $\frac{1}{4}$ "	40	62	691	1240-FCQ
1240-FCW	12 $\frac{1}{4}$ "	40	62	701	1240-FCWQ
1248-FC	12 $\frac{1}{4}$ "	48	70	753	1248-FCQ
1248-FCW	12 $\frac{1}{4}$ "	48	70	763	1248-FCWQ

CODE: In Catalog Number "C" indicates countershaft. "B" indicates Bench Legs, "F" indicates Floor Legs, "W" indicates Worm Feed Apron with Power Cross Feed. "Q" Full Quick Change Gear Box.







## 12" SHELDON PRECISION LATHES 1" Collet Capacity, Bronze Bearings, Overhead Motor Drive

Here is an excellent all around lathe for most shops . . . large enough to handle most general work. A real precision tool, sturdy enough to hold its accuracy under heavy cuts and with its Overhead Motor Drive Attachment is a complete operating unit, moderately priced.

Available in three bed lengths in Bench or Floor Models, choice of aprons and gear boxes, full complement of attachments and accessories. Lathes have Phosphor Bronze spindle bearings and large spindles with a  $1\frac{3}{8}$ " hole, a collet capacity up to and including 1-inch.

**Standard Equipment** includes: overhead motor drive attachment (less motor and reversing drum switch), 3-step cone pulley, change gears or quick change gear box (depending upon model specified), small face plate, compound rest, tool

post, thread chasing dial, headstock and tailstock centers, center sleeve, necessary wrenches, and book "The Care and Operation of a Lathe."

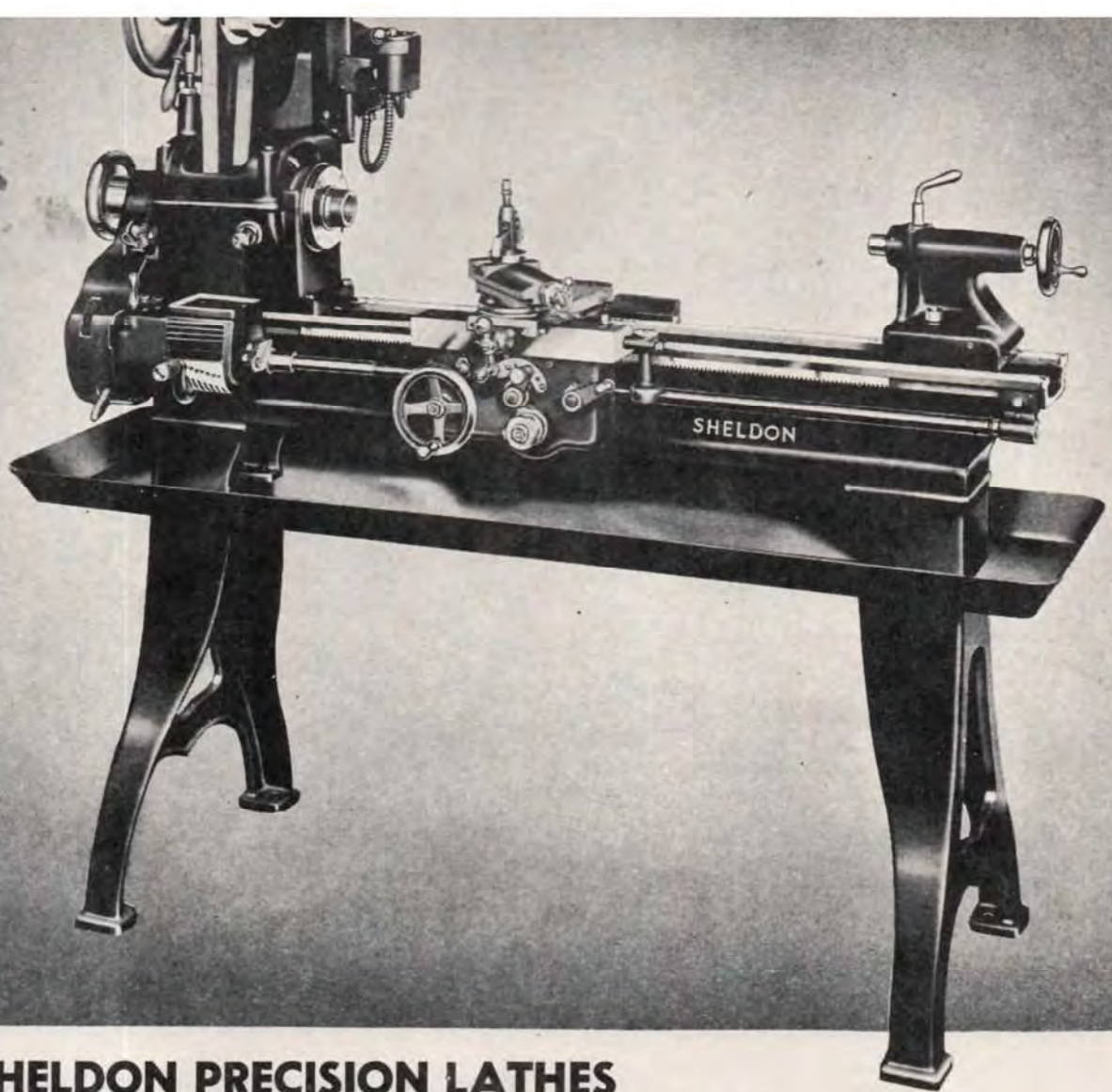
**Overhead Motor Drive Attachment.** A bracket mounted directly on top of headstock in place of the regular gear guards supplies the motor seat and also the supporting members of the adjustable countershaft bracket. Instant cam lever adjustment for shifting or tightening the belt. Motor base is adjustable for belt tension and motor is connected to countershaft by means of a V-belt. All moving parts are carefully guarded. It is furnished complete with Flat Belt for Headstock Cone, 10-inch V-Belt Pulley,  $2\frac{1}{4}$ " V-Belt Motor Pulley and a V-Belt.

For lathe specifications see specification page; for chucks, tools and attachments, see accessory pages.

With Semi-Quick Change Gears	Swing	Center Distance	Bed Lengths	Shipping Weight	With Full Quick Change Gears
1224-BM	12 $\frac{1}{4}$	24	44	557	1224-BMQ
1224-BMW	12 $\frac{1}{4}$	24	44	567	1224-BMWQ
1236-BM	12 $\frac{1}{4}$	36	56	603	1236-BMQ
1236-BMW	12 $\frac{1}{4}$	36	56	613	1236-BMWQ
1240-BM	12 $\frac{1}{4}$	40	62	650	1240-BMQ
1240-BMW	12 $\frac{1}{4}$	40	62	660	1240-BMWQ
1248-BM	12 $\frac{1}{4}$	48	70	712	1248-BMQ
1248-BMW	12 $\frac{1}{4}$	48	70	722	1248-BMWQ
1224-FM	12 $\frac{1}{4}$	24	44	641	1224-FMQ
1224-FMW	12 $\frac{1}{4}$	24	44	651	1224-FMWQ
1236-FM	12 $\frac{1}{4}$	36	56	687	1236-FMQ
1236-FMW	12 $\frac{1}{4}$	36	56	697	1236-FMWQ
1240-FM	12 $\frac{1}{4}$	40	62	734	1240-FMQ
1240-FMW	12 $\frac{1}{4}$	40	62	744	1240-FMWQ
1248-FM	12 $\frac{1}{4}$	48	70	796	1248-FMQ
1248-FMW	12 $\frac{1}{4}$	48	70	806	1248-FMWQ

**CODE:** In Model Numbers, "M" indicates Overhead Motor Drive, "B" indicates Bench Legs, "F" indicates Floor Legs, "W" indicates Worm Feed Apron with Power Cross Feed, "Q" indicates Full Quick Change Gear Box.





## 12" SHELDON PRECISION LATHES

### 1" Collet Capacity, Ball or Roller Bearings, Overhead Motor Drive

These precision tools embody every essential of a fine lathe. The most lathe for the money, for though you can pay much more, there is nothing to add but excessive weight and incidental features. Rigidly braced semi-steel bed with hand scraped ways, large hardened and ground spindle with extra collet capacity mounted in the finest preloaded ball or roller bearings. Precision cut lead screw tested for accuracy, Full Quick Change Gear Boy, Double-wall worm feed aprons with power cross feed. Will do work of other lathes with like capacity regardless of price.

**Standard Equipment** includes: overhead motor drive attachment (less motor and reversing drum switch), 3 step cone pulley, change gears or quick change gear box (depending upon model specified), small face plate, compound rest, tool

post, thread chasing dial, headstock and tailstock centers, center sleeve, necessary wrenches, and book "The Care and Operation of a Lathe."

**Anti-Friction Overhead Motor Drive Attachment.** Bracket mounted directly on top of the headstock replacing gear guards supplies the motor seat and the supporting members of the adjustable countershaft bracket. Instant cam lever adjustment for shifting or tightening the belt. Motor V-Belt and Flat Belt are both adjustable for tension. All Belts, Gears and other moving parts are carefully guarded. Furnished complete with Flat Belt for Headstock Cone, 10-Inch V-Belt Pulley, 2 1/4" V-Belt Motor Pulley and a V-Belt.

For lathe specifications see specification page; for chucks, tools and attachments, see accessory pages.



With Semi-Quick Change Gears	Swing	Distance Center	Bed Lengths	Shipping Weight	With Full Quick Change Gears
BB-1224 BM	24	12 1/4	44	566	BB-1224 BMQ
BB-1224 BMW	24	12 1/4	44	576	BB-1224 BMWQ
BB-1236 BM	36	12 1/4	56	612	BB-1236 BMQ
BB-1236 BMW	36	12 1/4	56	622	BB-1236 BMWQ
BB-1240 BM	40	12 1/4	62	659	BB-1240 BMQ
BB-1240 BMW	40	12 1/4	62	669	BB-1240 BMWQ
BB-1248 BM	48	12 1/4	70	721	BB-1248 BMQ
BB-1248 BMW	48	12 1/4	70	731	BB-1248 BMWQ
BB-1224 FM	24	12 1/4	44	650	BB-1224 FMQ
BB-1236 FM	36	12 1/4	44	660	BB-1236 FMQ
BB-1236 FMW	36	12 1/4	56	696	BB-1236 FMWQ
BB-1240 FM	40	12 1/4	56	706	BB-1236 FMWQ
BB-1240 FMW	40	12 1/4	62	743	BB-1240 FMQ
BB-1248 FM	48	12 1/4	62	753	BB-1240 FMWQ
BB-1248 FMW	48	12 1/4	70	805	BB-1248 FMQ
BB-1248 FMW	48	12 1/4	70	815	BB-1248 FMWQ

**CODE:** In Model Numbers, "BB" Indicates Precision Preloaded Spindle Bearings, if Precision Roller Bearings are wanted substitute "TRB" for "BB" in catalog number. "M" indicates Overhead Motor Drive, "B" indicates Bench Legs, "F" indicates Floor Legs. "W" indicates Worm Feed Apron with Power Cross Feed. "Q" indicates Full Quick Change Gear Box.

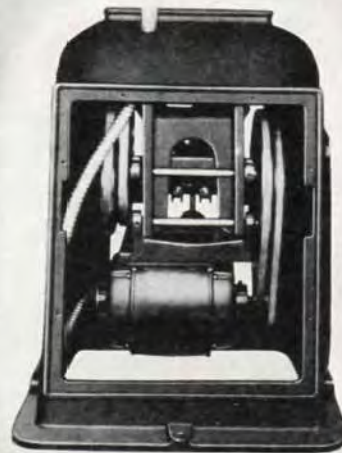
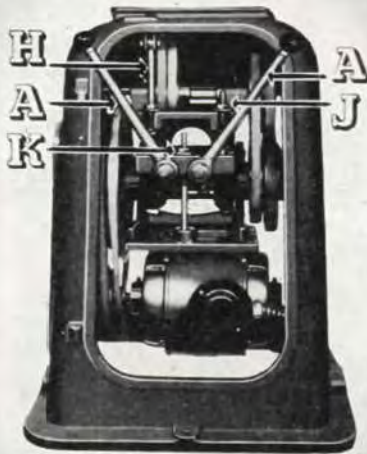


# SHELDON Underneath Motor Drive Lathes

## Type "E" and Type "U" Underneath Drives

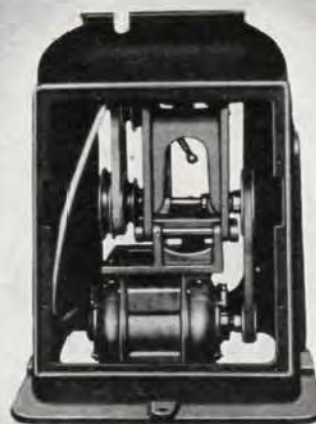
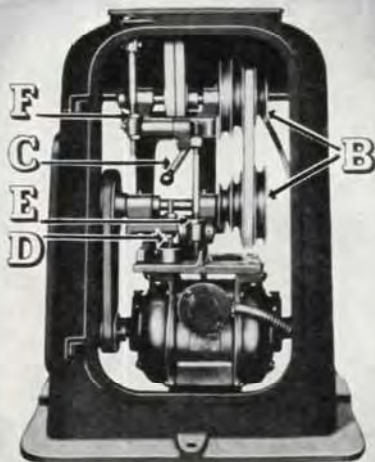
SHELDON Underneath Motor Drives furnished with Underneath Motor Driven Lathes are of two distinct types: The "U" type and the "E" type. Both are 4-speed V-belt drives with double V-belt drive to spindle and are so designed that they will operate through a standard 1-piece lathe bed,

without use of split beds or cut-out sections for belt clearance. Both "U" and "E" type drives are V-belt drives; in both, shafts are hardened and ground, and run in Needle Bearings. In both, provision has been made for adequate (grease gun) lubrication.



The "U" Type Underneath Motor Drive is a patented 4-speed drive (8 spindle speeds). Speed changes are made by shift levers (AA) that operate clutches in the pulleys of the drive shaft. These shaft levers are entirely outside the enclosed cabinet leg and all speed changes are made without opening or touching belts, pulleys or other moving parts. Because of this important safety feature, the "U" type drive is espe-

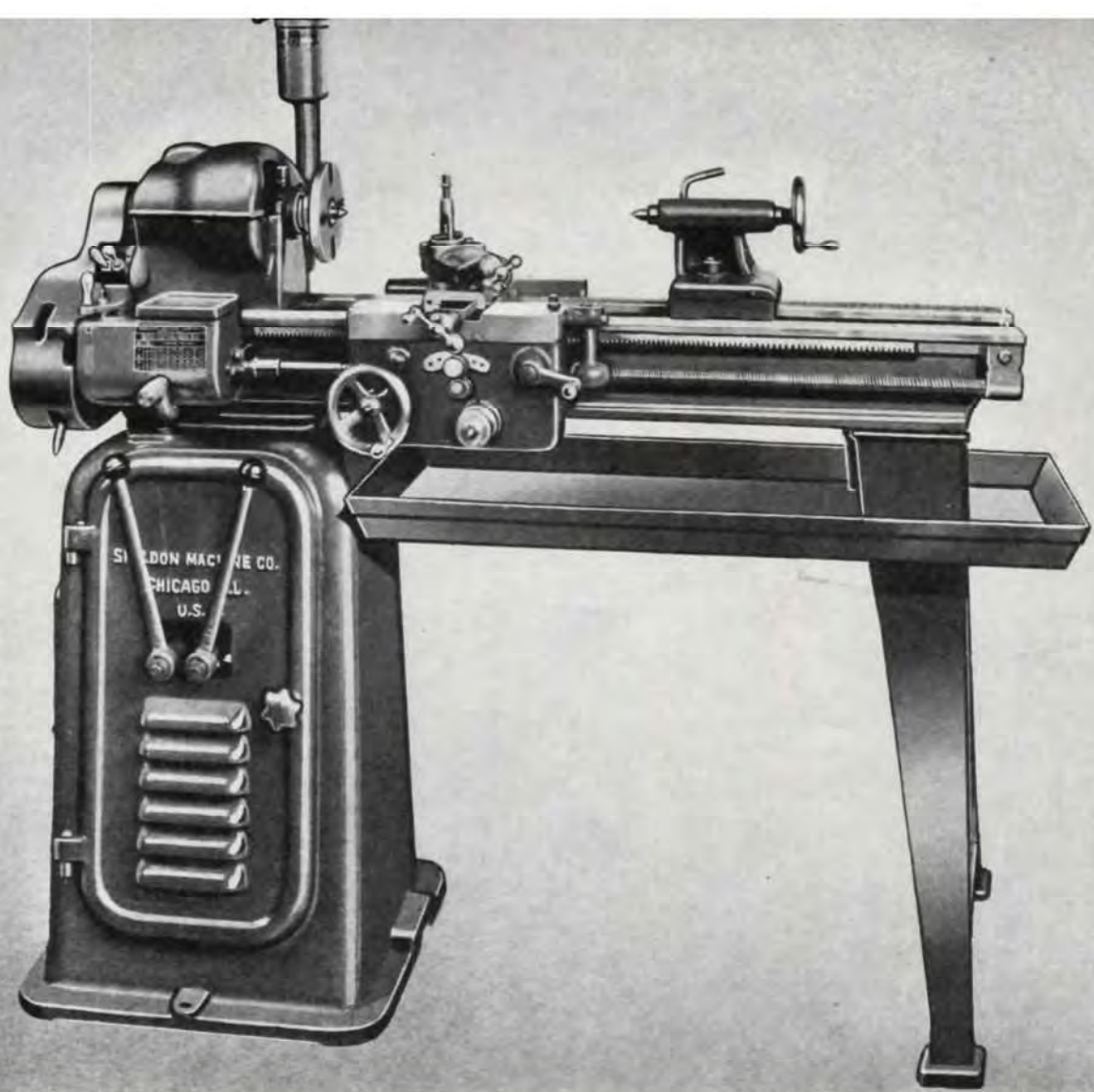
cially recommended for educational institutions and training shops. Because of the ease, speed and safety with which speed changes are made, "U" type lathes are especially adapted to all work where frequent speed changes are required. Means is provided for individual adjustment of tension of all belts (H, J, K).



The "E" Type Underneath Motor Drive has matching 4-step V-belt sheaves (B) allowing for 8 spindle speeds. Speed changes are easily made as the cone has a lever operated

tension release (C). Means for permanent adjustment of tensions, of the motor, cone and spindle belts is provided with the individual tension screws (D, E and F respectively).





## 10" SHELDON PRECISION LATHES

**3/4" Collet Capacity, Bronze Bearings, U-Type Underdrive**

These lathes are the last word in small lathe equipment for they combine all the SHELDON quality features with the most versatile and most advanced underneath motor drive—a 4-speed (8 spindle speed) V-belt drive on which speed changes are made instantly by shifting two levers. The entire drive is housed in a cabinet base and the spindle cone is

covered by a full bowl housing. The levers operate through clutches. It is never necessary to touch a belt or moving part. Because of its versatility, convenience, safety features and because of the trend toward elimination of overhead belting and shafting these lathes are being widely specified for tool rooms, second operation production work, maintenance departments and technical and trade schools.

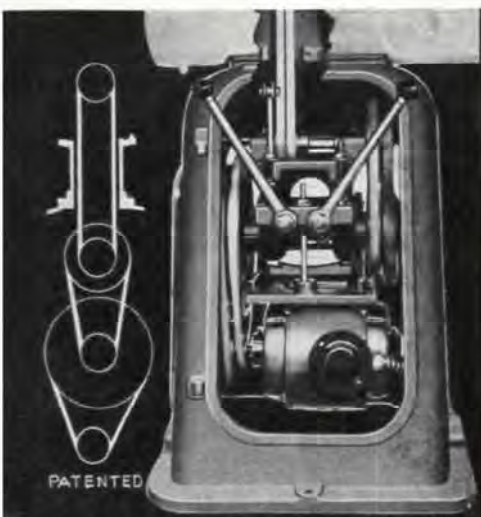
**Optional Equipment.** The same choice of Aprons, Gear Boxes and Bed Lengths are offered as with SHELDON Lathes described on preceding pages.

**Standard Equipment** includes: Double V-Belt pulley, underneath type motor drive (less motor), reversing drum switch, change gears or quick change gear box (depending upon model specified), small face plate, compound rest, tool post, thread chasing dial, headstock and tailstock centers, center sleeve, necessary wrenches, and book "The Care and Operation of a Lathe." (Chip pan, illustrated above, not included.)

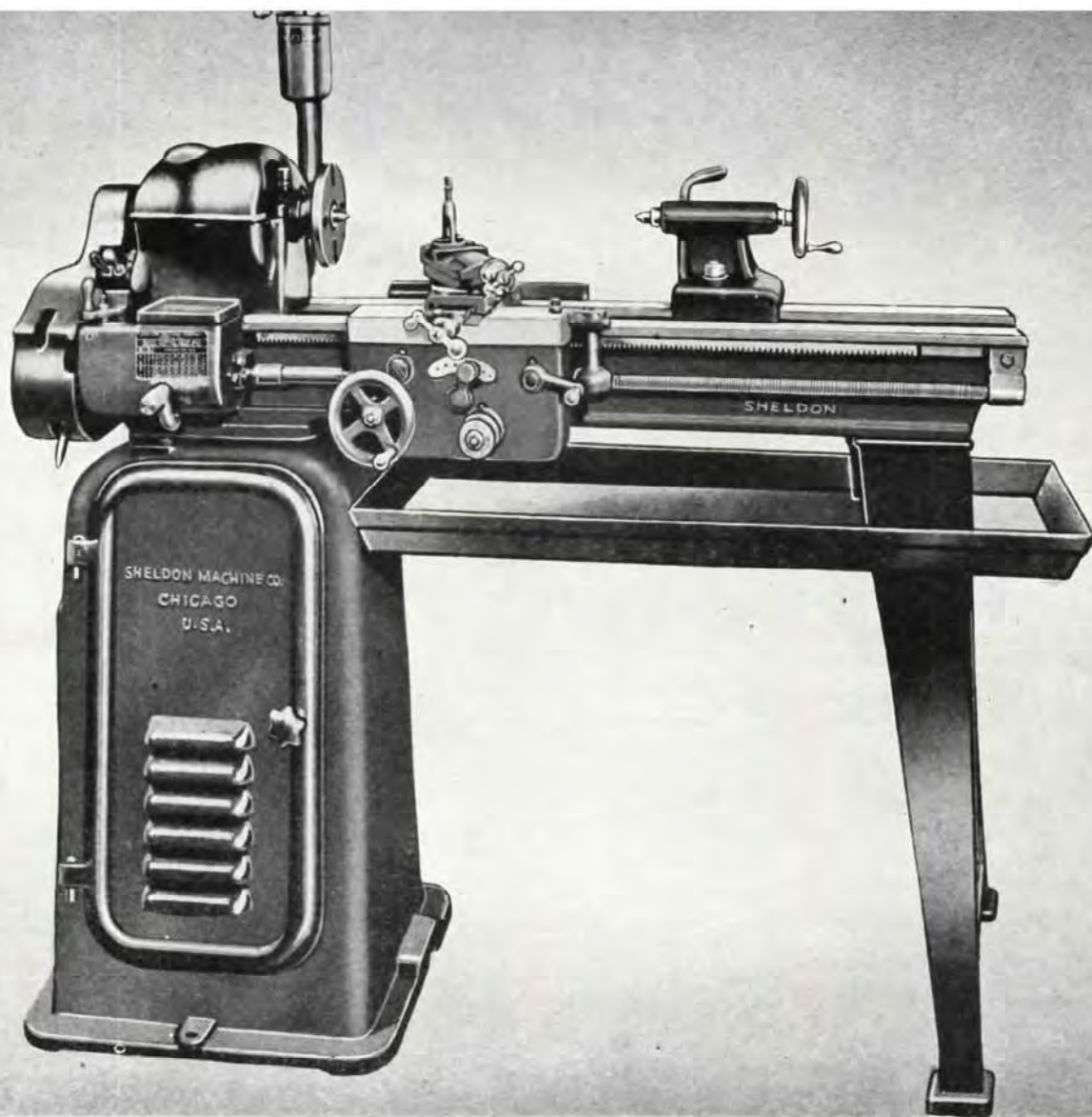
For lathe specifications see specification page; for chucks, tools and attachment see accessory pages.

With Semi-Quick Change Gears	Swing	Center Distance	Bed Lengths	Shipping Weight	With Full Quick Change Gears
U-1020 G	10 3/4	20	38	734	U-1020 GQ
U-1020 W	10 3/4	20	38	744	U-1020 WQ
U-1026 G	10 3/4	26	44	765	U-1026 GQ
U-1026 W	10 3/4	26	44	775	U-1026 WQ
U-1042 G	10 3/4	42	62	851	U-1042 GQ
U-1042 W	10 3/4	42	62	861	U-1042 WQ

**CODE:** In catalog number "G" indicates Plain Apron, "W" indicates Worm Feed Apron with Power Cross Feed, "U" indicates U-type Cabinet Base Underdrive, "Q" indicates Full Quick Change Gears.







## 10" SHELDON PRECISION LATHES

$\frac{3}{4}$ " Collet Capacity, Bronze Bearings, E-Type Underdrive

These SHELDON E-Type Lathes combine the quality, sturdiness and precision of all SHELDON Lathes with the simplest, most trouble-free, efficient underneath motor drives available. E-type drives provide 4-speed V-belt drive (8 spindle speeds) with lever tension release for belt shifting, motor mounting and adjustable tensioning means for both motor and drive belts; all completely enclosed with motor in a cabinet base.

Safe because all moving belts and pulleys are entirely enclosed and requiring no overhead or outside motor belts or pulleys, these modern lathes save floor space and permit

maximum air, light and operating space and operating convenience wherever installed.

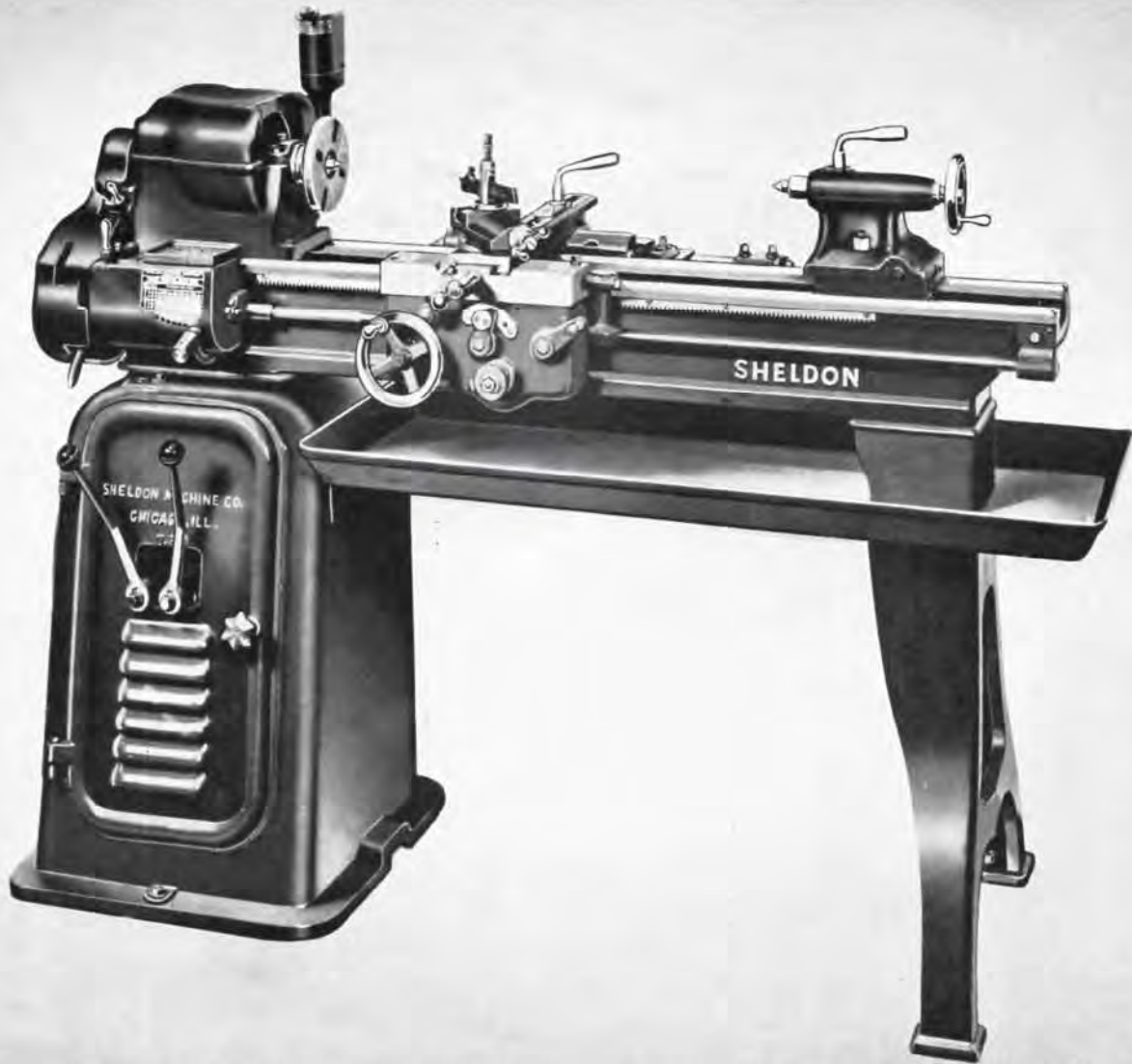
**Standard Equipment** includes: Double V-Belt pulley, underneath type motor drive (less motor), reversing drum switch, change gears or quick change gear box (depending upon model specified), small face plate, compound rest, tool post, thread chasing dial, headstock and tailstock centers, center sleeve, necessary wrenches, and book "The Care and Operation of a Lathe." (Chip pan illustrated above, not included.)

**Note:** See page 29 for detailed description of SHELDON Underneath Motor Drive.

With Semi-Quick Change Gears	Swing	Center Distance	Bed Lengths	Approximate Weight	With Full Quick Change Gears
E-1020 G	10 $\frac{1}{8}$	20	38	687	E-1020 GQ
E-1020 W	10 $\frac{1}{8}$	20	38	697	E-1020 WQ
E-1026 G	10 $\frac{1}{8}$	26	44	718	E-1026 GQ
E-1026 W	10 $\frac{1}{8}$	26	44	728	E-1026 WQ
E-1042 G	10 $\frac{1}{8}$	42	62	804	E-1042 GQ
E-1042 W	10 $\frac{1}{8}$	42	62	814	E-1042 WQ

CODE: "E" indicates E-type Underdrive, "G" indicates Plain Apron, "W" indicates Worm Feed Apron, with Power Cross Feed, "Q" indicates Full Quick Change Gear Box.





## 11" SHELDON PRECISION LATHES

$\frac{3}{4}$ " Collet Capacity, Bronze Bearings, U-Type Underdrive

Motor Drive with hardened and ground tool steel shafts riding in Anti-Friction bearings, with all belts and pulleys completely enclosed in graceful cabinet base and full bowl headstock—every up-to-the-minute feature including large ground spindle of careful design, substantial weight, sturdy construction and hand scraped bearings. Only SHELDON makes this superior type drive.

These modern U-Type, 11" SHELDON Lathes provide every desirable feature—eight spindle speeds, a great number of feed changes, and large collet capacity. Available in four bed lengths they offer every modern improvement—with lever operated speed shift, lever operated gear box, double-wall worm feed apron with power cross feed and Underneath

The same wide choice that is available in all SHELDON Lathes is offered for these 11" U-Type Models—Semi-Quick or Full Quick Change Gears, Plain Aprons or Worm Feed Aprons with Power Cross Feed and any of the complete line listed on the accessory or attachment pages.

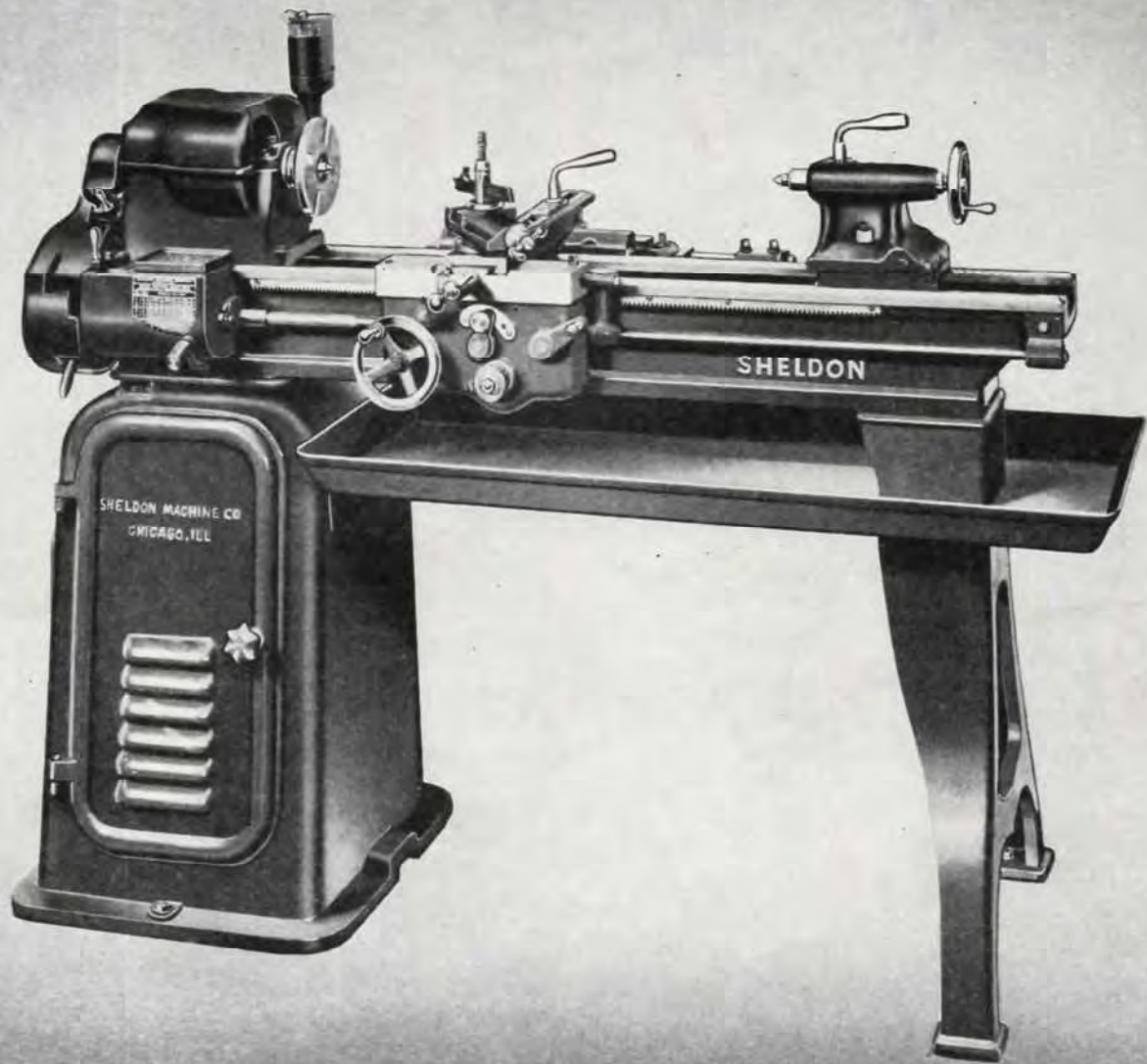
**Standard Equipment** includes: Double V-belt pulley, underneath type motor drive (less motor), reversing drum switch, change gears or quick change gear box (depending upon model specified), small face plate, compound rest, tool post, thread chasing dial, headstock and tailstock center, center sleeve, necessary wrenches, and book "The Care and Operation of a Lathe." (Chip pan illustrated above, not included.)

With Semi-Quick Change Gears	Swing	Center Distance	Bed Lengths	Approximate Weight	With Full Quick Change Gears
U-1124 G	11 $\frac{1}{4}$	24	44	833	U-1124 GQ
U-1124 W	11 $\frac{1}{4}$	24	44	843	U-1124 WQ
U-1136 G	11 $\frac{1}{4}$	36	55	882	U-1136 GQ
U-1136 W	11 $\frac{1}{4}$	36	56	892	U-1136 WQ
U-1140 G	11 $\frac{1}{4}$	40	62	919	U-1140 GQ
U-1140 W	11 $\frac{1}{4}$	40	62	929	U-1140 WQ
U-1148 G	11 $\frac{1}{4}$	48	70	976	U-1148 GQ
U-1148 W	11 $\frac{1}{4}$	48	70	986	U-1148 WQ

CODE: In catalog number "G" indicates Plain Apron, "W" indicates Worm Feed Apron with Power Cross Feed, "U" indicates U-type Cabinet Base Underdrive, "Q" indicates Full Quick Change Gears.

Sheldon underneath drives eliminate overhead belts and shafting.





## 11" SHELDON PRECISION LATHES

$\frac{3}{4}$ " Collet Capacity with Bronze Bearings.

1" Collet Capacity with Ball or Roller Bearings, E-Type Underdrive

These modern 11" precision lathes come with a 4-speed, V-belt "E"-type Underneath Motor Drive (giving 8 spindle speeds). In this drive, which is entirely enclosed in the pedestal base leg both 4-step sheaves are located well below the lathe bed for easy accessibility. All belt shifting for speed changes are from the front of the lathe and are made easy by an instant belt tension release lever. Means are also provided for individual adjustments of pulley, spindle and motor belt tensions. These lathes have full bowl (completely enclosed) headstocks and come with choice of aprons, gear boxes, etc., offered with all SHELDON Lathes.

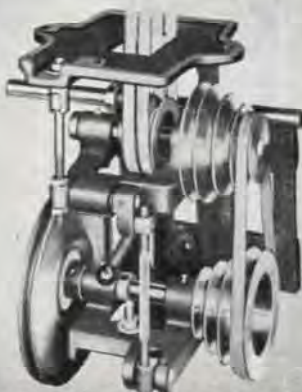
Ball bearing (BB) or precision roller bearing (TRB) Models have 1" round collet capacity.

**Standard Equipment** includes: Double V-belt pulley, underneath type motor drive (less motor), reversing drum switch, change gears or quick change gear box (depending upon model specified), small face plate, compound rest, tool post, thread chasing dial, headstock and tailstock centers, center sleeve, necessary wrenches, and book "The Care and Operation of a Lathe." (Chip pan illustrated above, not included.)

**Note:** See page 29 for detailed description of SHELDON Underneath Motor Drive.

With Semi-Quick Change Gears	Swing	Center Distance	Bed Lengths	Approximate Weight	With Full Quick Change Gears
E-1124 G	11 $\frac{1}{4}$	24	44	786	E-1124 GQ
E-1124 W	11 $\frac{1}{4}$	24	44	796	E-1124 WQ
E-1136 G	11 $\frac{3}{4}$	36	56	835	E-1136 GQ
E-1136 W	11 $\frac{3}{4}$	36	56	845	E-1136 WQ
E-1140 G	11 $\frac{1}{2}$	40	62	872	E-1140 GQ
E-1140 W	11 $\frac{1}{2}$	40	62	882	E-1140 WQ
E-1148 G	11 $\frac{3}{4}$	48	70	929	E-1148 GQ
E-1148 W	11 $\frac{3}{4}$	48	70	939	E-1148 WQ
BB E-1124 G	11 $\frac{1}{4}$	24	44	795	BB E-1124 GQ
BB E-1124 W	11 $\frac{1}{4}$	24	44	805	BB E-1124 WQ
BB E-1136 G	11 $\frac{3}{4}$	36	56	844	BB E-1136 GQ
BB E-1136 W	11 $\frac{3}{4}$	36	56	854	BB E-1136 WQ
BB E-1140 G	11 $\frac{1}{2}$	40	62	881	BB E-1140 GQ
BB E-1140 W	11 $\frac{1}{2}$	40	62	891	BB E-1140 WQ
BB E-1148 G	11 $\frac{3}{4}$	48	70	938	BB E-1148 GQ
BB E-1148 W	11 $\frac{3}{4}$	48	70	948	BB E-1148 WQ

**CODE:** "BB" indicates Precision Preloaded Spindle Bearings, if Precision Roller Bearings are wanted substitute "TRB" for "BB" in catalog number. "G" indicates Plain Apron, "W" indicates Worm Feed Apron with Power Cross Feed, "Q" indicates Full Quick Change Gear Box.







## 11" SHELDON PRECISION LATHES

1" Collet Capacity, Roller or Ball Bearings, U-Type Underdrive

These lathes are identical to those described on the preceding page except that headstock has Anti-Friction Bearings that permit extra large spindles. They come with either matched precision pre-loaded ball bearings or precision roller bearings.

The large spindles which are machined from special spindle steel are hardened and ground, and in SHELDON style, even the spindle nose thread is ground.

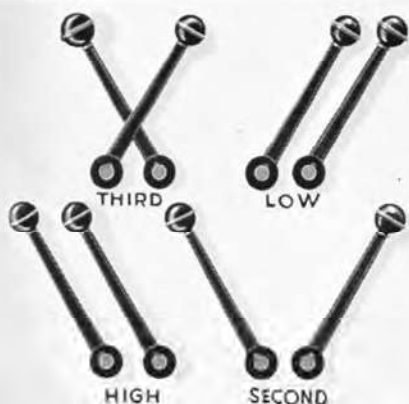
The U-type 4-speed underneath motor drive (8 spindle speeds) is also Anti-Friction. Shafts are hardened and ground and run in needle roller bearings. With all drive

speeds instantly attainable by shifting outside levers these lathes give extreme versatility while the double spindle V-belts deliver the maximum of smooth power at the cutting point.

**Standard Equipment** includes: Double V-belt pulley, underneath type motor drive (less motor), reversing drum switch, change gears or quick change gear box (depending upon model specified), small face plate, compound rest, tool post, thread chasing dial, headstock and tailstock centers, center sleeve, necessary wrenches, and book "The Care and Operation of a Lathe." (Chip pan illustrated above, not included.)

With Semi-Quick Change Gears	Swing	Center Distance	Bed Lengths	Approximate Weight	With Full Quick Change Gears
<b>With Precision Roller Spindle Bearings</b>					
TRB U-1124 G	11 $\frac{3}{4}$	24	44	842	TRB U-1124 GQ
TRB U-1124 W	11 $\frac{3}{4}$	24	44	852	TRB U-1124 WQ
TRB U-1136 G	11 $\frac{3}{4}$	36	56	891	TRB U-1136 GQ
TRB U-1136 W	11 $\frac{3}{4}$	36	56	901	TRB U-1136 WQ
TRB U-1140 G	11 $\frac{3}{4}$	40	62	928	TRB U-1140 GQ
TRB U-1140 W	11 $\frac{3}{4}$	40	62	938	TRB U-1140 WQ
TRB U-1148 G	11 $\frac{3}{4}$	48	70	985	TRB U-1148 GQ
TRB U-1148 W	11 $\frac{3}{4}$	48	70	995	TRB U-1148 WQ
<b>With Precision Pre-Loaded Ball Spindle Bearings</b>					
BB U-1124 G	11 $\frac{3}{4}$	24	44	842	BB U-1124 GQ
BB U-1124 W	11 $\frac{3}{4}$	24	44	852	BB U-1124 WQ
BB U-1136 G	11 $\frac{3}{4}$	36	56	891	BB U-1136 GQ
BB U-1136 W	11 $\frac{3}{4}$	36	56	901	BB U-1136 WQ
BB U-1140 G	11 $\frac{3}{4}$	40	62	928	BB U-1140 GQ
BB U-1140 W	11 $\frac{3}{4}$	40	62	938	BB U-1140 WQ
BB U-1148 G	11 $\frac{3}{4}$	48	70	985	BB U-1148 GQ
BB U-1148 W	11 $\frac{3}{4}$	48	70	995	BB U-1148 WQ

**CODE:** In catalog number "C" indicates Plain Apron, "W" indicates Worm Feed Apron with Power Cross Feed. "U" indicates U-type Cabinet Base Underdrive, "Q" indicates Full Quick Change Gears, "BB" indicates Pre-loaded Ball Bearing Headstock, "TRB" indicates Roller Bearing Headstock.







## 12" SHELDON PRECISION LATHES

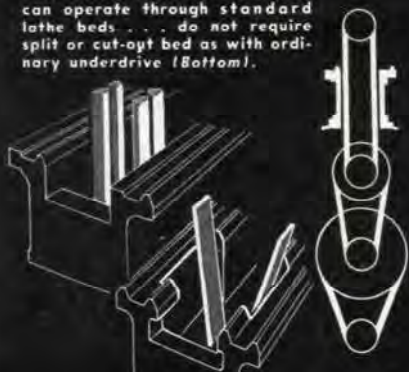
1" Collet Capacity, Bronze Bearings, U-Type Underdrive

These are fine lathes with large 1" round collet capacity. Bed, headstock, tailstock, carriage and aprons are all heavy in design. With the 4-speed, lever-operated U-Type Underdrive and Full Quick Change Gears, this lathe will give (8 speeds, forward or reverse), feeds from .0005 to .015 and a cutting range of 4 to 224 threads per inch with the shift of levers. With hand scraped individually matched phosphor bronze bearings, and accuracy-tested lead screws, these lathes will

hold their extreme accuracy through years of hard service.

**Standard Equipment** includes: Double V-belt pulley, underneath type motor drive (less motor), reversing drum switch, change gears or quick change gear box (depending upon model specified), small face plate, compound rest, tool post, thread chasing dial, headstock and tailstock centers, center sleeve, necessary wrenches, and book "The Care and Operation of a Lathe."

(Top) Sheldon Underneath Drives have double countershafts, hence can operate through standard lathe beds . . . do not require split or cut-out bed as with ordinary underdrive (Bottom).



With Semi-Quick Change Gears	Swing	Center Distance	Bed Lengths	Approximate Weight	With Full Quick Change Gears
U-1224 G	12 $\frac{1}{4}$	24	44	867	U-1224 GQ
U-1224 W	12 $\frac{1}{4}$	24	44	877	U-1224 WQ
U-1236 G	12 $\frac{3}{4}$	36	56	916	U-1236 GQ
U-1236 W	12 $\frac{3}{4}$	36	56	926	U-1236 WQ
U-1240 G	12 $\frac{3}{4}$	40	62	953	U-1240 GQ
U-1240 W	12 $\frac{3}{4}$	40	62	963	U-1240 WQ
U-1248 G	12 $\frac{3}{4}$	48	70	1010	U-1248 GQ
U-1248 W	12 $\frac{3}{4}$	48	70	1020	U-1248 WQ

CODE: In catalog number "G" indicates Plain Apron, "W" indicates Worm Feed Apron with Power Cross Feed, "U" indicates U-type Cabinet Base Underdrive, "Q" indicates Full Quick Change Gears.





## 12" SHELDON PRECISION LATHES

1" Collet Capacity, Bronze, Ball or Roller Bearings, E-Type Underdrive

These 12" precision lathes have all the features of the SHELDON standard 12" lathe and in addition an E-type underneath Motor Drive that is completely enclosed in the forward cabinet leg. The efficient drive furnishes 4 forward and 4 reverse speeds, resulting in a range of 8 spindle speeds in either direction. Shafts and cones of this drive run in needle bearings and speed changes (shifting of belt on cones) is made easy by a lever tension release. E-type Underneath Lathes come with the same choice of aprons and gear boxes offered for all SHELDON Lathes. Speed changes are easily made from the front of the lathe through a hinged door. Cones are 4-speed, V-belt type with lever tension release.

Standard Equipment includes: Double V-belt pulley, underneath type motor drive (less motor), reversing drum switch, change gears or quick change gear box (depending upon model specified), small face plate, compound rest, tool post, thread chasing dial, headstock and tailstock centers, center sleeve, necessary wrenches, and book "The Care and Operation of a Lathe."

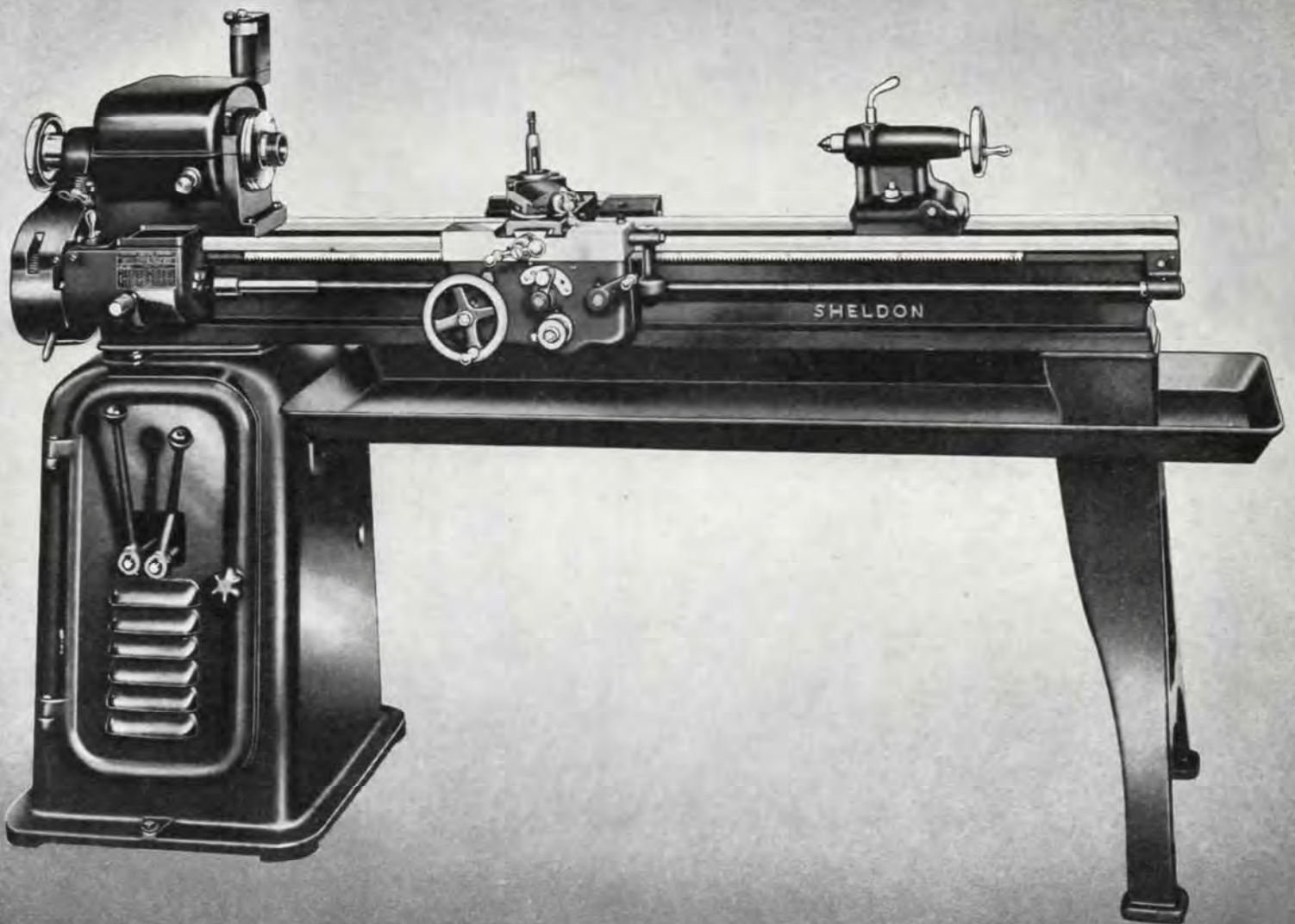
Note: See page 29 for detailed description of SHELDON Underneath Motor Drive.

With Semi-Quick Change Gears	Swing	Center Distance	Bed Lengths	Shipping Weight	With Full-Quick Change Gears
E-1224 G	12 $\frac{1}{4}$	24	44	820	E-1224 GQ
E-1224 W	12 $\frac{1}{4}$	24	44	830	E-1224 WQ
E-1236 G	12 $\frac{1}{4}$	36	56	869	E-1236 GQ
E-1236 W	12 $\frac{1}{4}$	36	56	879	E-1236 WQ
E-1240 G	12 $\frac{1}{4}$	40	62	906	E-1240 GQ
E-1240 W	12 $\frac{1}{4}$	40	62	916	E-1240 WQ
E-1248 G	12 $\frac{1}{4}$	48	70	963	E-1248 GQ
E-1248 W	12 $\frac{1}{4}$	48	70	973	E-1248 WQ
BB E-1224 G	12 $\frac{1}{4}$	24	44	829	BB E-1224 GQ
BB E-1224 W	12 $\frac{1}{4}$	24	44	839	BB E-1224 WQ
BB E-1236 G	12 $\frac{1}{4}$	36	56	878	BB E-1236 GQ
BB E-1236 W	12 $\frac{1}{4}$	36	56	888	BB E-1236 WQ
BB E-1240 G	12 $\frac{1}{4}$	40	62	915	BB E-1240 GQ
BB E-1240 W	12 $\frac{1}{4}$	40	62	925	BB E-1240 WQ
BB E-1248 G	12 $\frac{1}{4}$	48	70	972	BB E-1248 GQ
BB E-1248 W	12 $\frac{1}{4}$	48	70	982	BB E-1248 WQ

CODE: "BB" indicates Precision Preloaded Spindle Bearings, if Precision Roller Bearings are wanted substitute "TRB" for "BB" in catalog number. "C" indicates Plain Apron, "W" indicates Worm Feed Apron with Power Cross Feed, "Q" indicates Full Quick Change Gear Box.







## 12" SHELDON PRECISION LATHES

### 1" Collet Capacity, Ball or Roller Bearings, U-Type Underdrive

Incorporating all the features of the lathes on the preceding page, these lathes have in addition, the SHELDON Anti-Friction Bearing Headstock — large spindles and extra collet capacity. With spindle running in accurately matched pre-loaded precision ball bearings or precision roller bearings, 4-speed U-type underdrive (8 spindle speeds) operation is silent with extremely efficient and smooth power delivery to the point of work.

These lathes have a  $1\frac{3}{8}$ " spindle hole and a 1" round collet

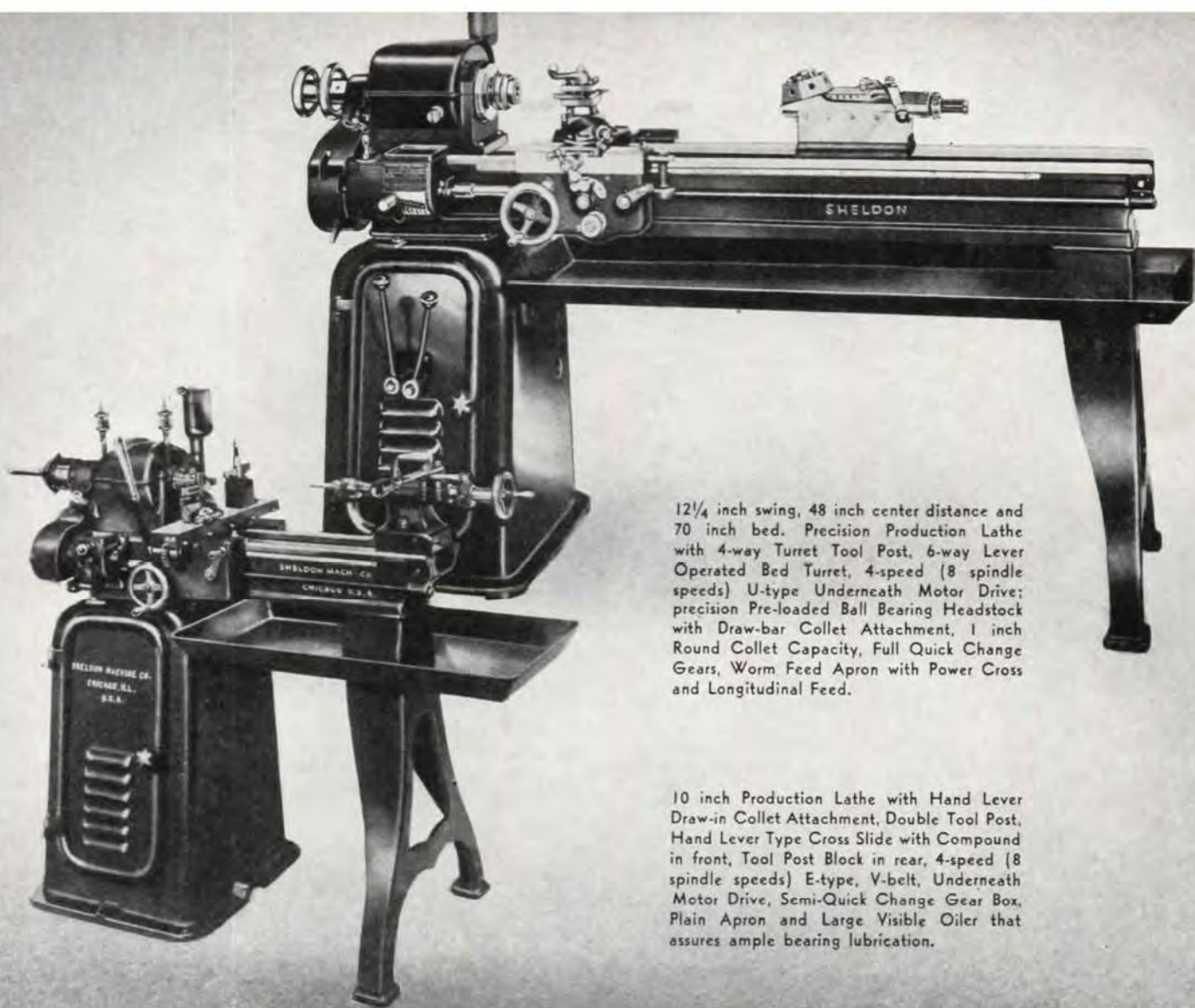
capacity. Equipped with quick change gear box, all speed changes and gear changes are instantaneous.

**Standard Equipment includes:** Double V-Belt pulley, underneath type motor drive (less motor), reversing drum switch, change gears or quick change gear box (depending upon model specified), small face plate, compound rest, tool post, thread chasing dial, headstock and tailstock centers, center sleeve, necessary wrenches, and book "The Care and Operation of a Lathe."

With Semi-Quick Change Gears	Swing	Center Distance	Lengths Bed	Shipping Weight	With Full Quick Change Gears
<b>With Precision Pre-Loaded Ball Spindle Bearings</b>					
BB U-1224 G	12 $\frac{1}{4}$ "	24	44	876	BB U-1224 GQ
BB U-1224 W	12 $\frac{1}{4}$ "	24	44	886	BB U-1224 WQ
BB U-1236 G	12 $\frac{1}{2}$ "	36	56	925	BB U-1236 GQ
BB U-1236 W	12 $\frac{1}{2}$ "	36	56	935	BB U-1236 WQ
BB U-1240 G	12 $\frac{3}{4}$ "	40	62	962	BB U-1240 GQ
BB U-1240 W	12 $\frac{3}{4}$ "	40	62	972	BB U-1240 WQ
BB U-1248 G	12 $\frac{3}{4}$ "	48	70	1019	BB U-1248 GQ
BB U-1248 W	12 $\frac{3}{4}$ "	48	70	1029	BB U-1248 WQ
<b>With Precision Roller Spindle Bearings</b>					
TRB U-1224 G	12 $\frac{1}{4}$ "	24	44	876	TRB U-1224 GQ
TRB U-1224 W	12 $\frac{1}{4}$ "	24	44	886	TRB U-1224 WQ
TRB U-1236 G	12 $\frac{1}{2}$ "	36	56	925	TRB U-1236 GQ
TRB U-1236 W	12 $\frac{1}{2}$ "	36	56	935	TRB U-1236 WQ
TRB U-1240 G	12 $\frac{3}{4}$ "	40	62	962	TRB U-1240 GQ
TRB U-1240 W	12 $\frac{3}{4}$ "	40	62	972	TRB U-1240 WQ
TRB U-1248 G	12 $\frac{3}{4}$ "	48	70	1019	TRB U-1248 GQ
TRB U-1248 W	12 $\frac{3}{4}$ "	48	70	1029	TRB U-1248 WQ

**CODE:** In catalog number "G" indicates Plain Apron, "W" indicates Worm Feed Apron with Power Cross Feed. "U" indicates U-type Cabinet Base Underdrive, "Q" indicates Full Quick Change Gears, "BB" indicates Pre-loaded Ball Bearing Headstock, "TRB" indicates Roller Bearing Headstock.





12 $\frac{1}{4}$  inch swing, 48 inch center distance and 70 inch bed. Precision Production Lathe with 4-way Turret Tool Post, 6-way Lever Operated Bed Turret, 4-speed (8 spindle speeds) U-type Underneath Motor Drive; precision Pre-loaded Ball Bearing Headstock with Draw-bar Collet Attachment, 1 inch Round Collet Capacity, Full Quick Change Gears, Worm Feed Apron with Power Cross and Longitudinal Feed.

10 inch Production Lathe with Hand Lever Draw-in Collet Attachment, Double Tool Post, Hand Lever Type Cross Slide with Compound in front, Tool Post Block in rear, 4-speed (8 spindle speeds) E-type, V-belt, Underneath Motor Drive, Semi-Quick Change Gear Box, Plain Apron and Large Visible Oiler that assures ample bearing lubrication.

## SPECIAL SHELDON LATHES

**Exactly the Right Lathe for Each Shop,  
for Each Job**

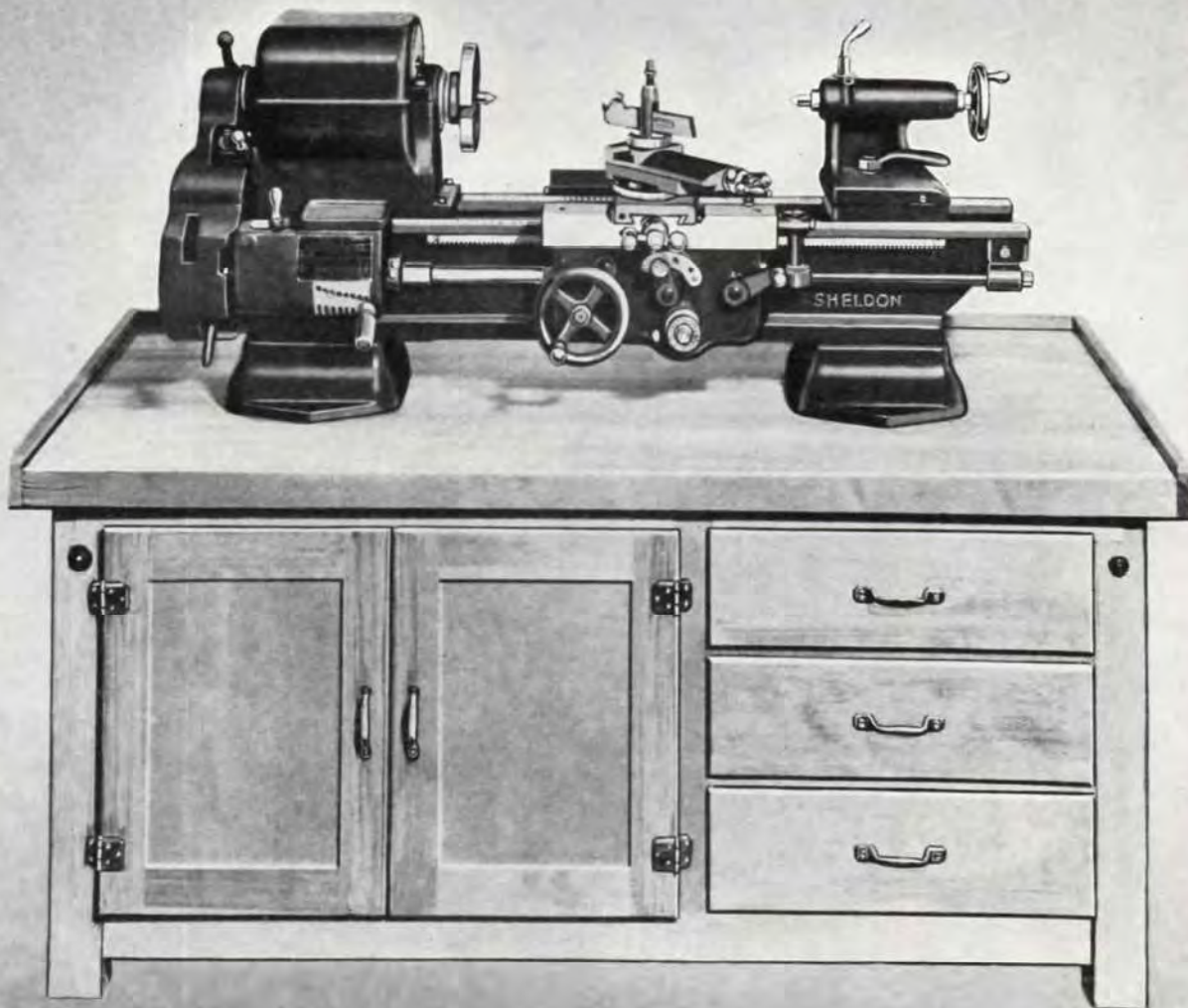
Custom built 11" SHELDON Lathe with Precision Preloaded Ball Bearing Headstock, Special High Speed Drive, Quick Change Gears, Power Feeds, all Belts completely guarded, Special Motor with oil emersed reversing drum switch.

All SHELDON Lathes come with a wide choice of optional features, accessories and attachments, so that each lathe buyer can obtain a lathe exactly suited to his individual needs, with every desired feature.

Although carriages come drilled for taper attachments, follow rests, etc., so that they may be readily added at any time, when ordering lathes with attachment tools such as special Hand Lever cross slides, collet attachments, Bed Turrets, taper attachments, etc., we suggest these be installed at the factory. No charges for such installations are made where these items are ordered and furnished with lathe. Prices for special lathes will be gladly given upon receipt of the specifications.







## SHELDON LATHES and WOODEN BENCH UNITS

### E-Type Drive, 44", 56" or 62" Bed Lengths

The Sheldon Lathe and Wooden Bench Combination is a sturdy unit, providing ideal location for the machine, large bench top working space, and ample drawer facilities for storage of tools, work in progress, etc.

The bench is rigidly constructed with 3" sq. maple legs and a heavy, solid, maple top, 2" thick. It is thoroughly reinforced with steel rods, bolted front and back.

The wooden bench is available for Sheldon "E" type underneath motor driven lathes only, in 44", 56" and 62" bed length. The smaller bench has 3 drawers 18 $\frac{1}{2}$ " inside running the full depth of the bench, while the 3 drawers of the larger bench are 28 $\frac{1}{2}$ " inside and full depth. Two swinging doors on the left of the bench completely enclose the motor drive, yet allow when open, ample room for reaching all parts of the unit.

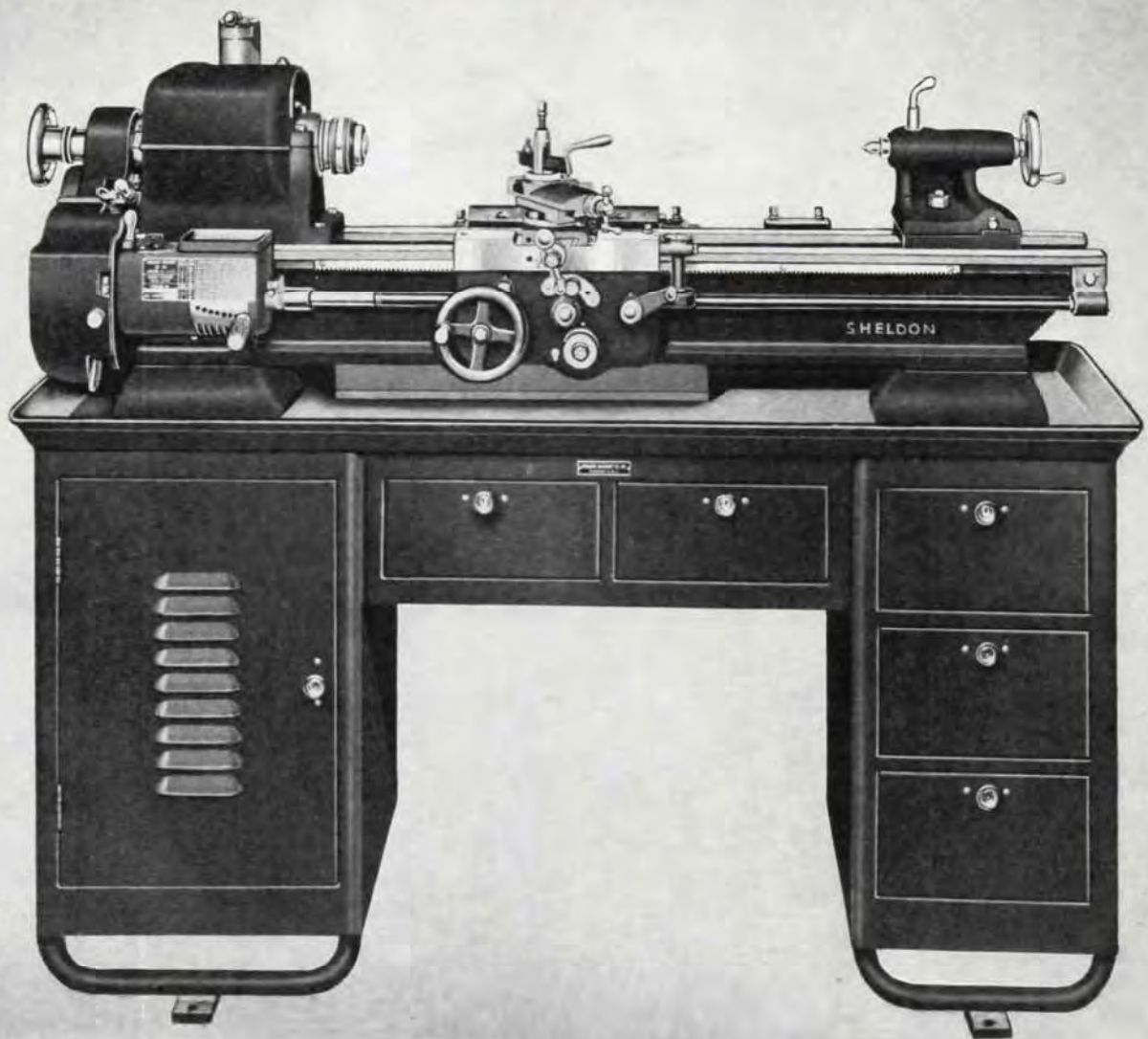
See price sheet covering Sheldon "E" type motor driven lathes for price of bench.

This SHELDON "E"-type Underneath Motor Drive like all other SHELDON Underneath Drives, carries a double countershaft which permits its use with standard, 1-piece lathe beds. It should not be confused with underneath drives requiring "split" or cut-out beds.

#### BENCH SPECIFICATIONS

Bed Length	Table Top Height	Overall Length	Overall Depth	Shipping Weight
For 44" Beds	27"	61 $\frac{1}{2}$ "	28 $\frac{3}{4}$ "	320
For 56" and 62" Beds	27"	71 $\frac{1}{2}$ "	28 $\frac{3}{4}$ "	360





## SHELDON LATHE and METAL BENCH UNITS

E-Type Drive, 44" or 56" Bed Lengths

The Sheldon Lathe and Metal Bench combination is a popular unit in shops and in industrial and government schools. The large bench, for the 56" Beds, provides 5 drawers, giving ample space for storage of tools, work in progress, etc. The smaller bench, for the 44" Beds, provide 4 drawers, 3 in the right leg, and 1 in the center section.

The bench is of rigid tubular and sheet steel construction, being well braced and having securely welded joints. The top is provided with a well rolled rim to serve as a chip pan.

Bench is available for "E" type underneath motor driven lathes only having 44" or 56" Beds. See price sheet covering the "E" type lathe for price of Bench.

This SHELDON "E" type Underneath Motor Drive like all other SHELDON Underneath Drives, carries a double countershaft which permits its use with standard 1-piece lathe beds. It should not be confused with underneath drives requiring "spliced" or cut out beds.

### SPECIFICATIONS — METAL BENCH

		Height	Width	Length	Shipping Weight
For 44" Beds	Nominal	30	18¾	49½	275
	Overall	32	22	52¾	
For 56" Beds	Nominal	30	18¾	61¼	310
	Overall	32	22	64½	



# ACCESSORIES and ATTACHMENTS for SHELDON LATHES

## TAPER ATTACHMENTS

Taper turning and boring with the SHELDON Taper Attachments is as easy to perform as any straight lathe tool operation. Its perfect performance and results are due to the combination of simple technicalities in design and sturdy construction. With tool room specifications and mass production requirements, the SHELDON Taper Attachment is an important unit in modern lathe work.

The improved SHELDON telescopic taper attachment (Fig. 5) must be fitted to the lathe carriage and may be used in any position along the lathe bed. It does not obstruct straight turning operations. This attachment has straight gibs to eliminate vibrations and tool play often found in eccentric or off-centered types of work. To prepare the taper attachment for turning or boring it is not necessary to disconnect the cross feed screw nut, due to the fact that a telescopic cross feed screw is used. The swivel bar is graduated on one end in inches per foot of taper and in the other end in degrees. Tapers up to  $3\frac{1}{2}$ " per foot may be turned.

The SHELDON plain taper attachment (Fig. 6) can be bolted to any SHELDON lathe carriage. The lathe need not be returned to the factory. To prepare the plain taper attachment for work, it is necessary to disconnect the cross feed screw nut. Other characteristics of the plain taper attachment are the same as those of the telescopic type.

## TOOL POST GRINDERS

Conveniently Fit on the Compound Rest of the Lathe in Place of the Tool Post

### Tool Post Grinder No. 44

This grinder, powered by a  $\frac{1}{4}$  H.P. motor, provides spindle speeds from 6,000 to 38,500 r.p.m. It has a precision grinding capacity of a tenth (.0001"). This all purpose tool is adaptable for grinding cutters, reamers, dies, bushings, pistons, etc. Tool Post Grinder Equipment consists of 2 belts, 2 wheel collars, diamond dresser, can of oil, 3 straight wheels, chuck assembly, wheel guard, 5 pulleys, wheel arbor, 3 mounted wheels, 4 wrenches, tee bolt, steel carrying case.



### Tool Post Grinder No. 11

This light, compact tool, weighing but 11 lbs., will swing a 2" straight grinding wheel for external work and will grind a hole  $\frac{1}{2}$ " or larger in a diameter to a depth of  $2\frac{1}{2}$ ", or smaller diameter to a depth of 1". Equipment consists of 2 belts, chuck, can of oil, 3 mounted wheels, 2 straight wheels, 2 wheel collars, 2 pulleys, wrenches, tee bolts, steel carrying case.

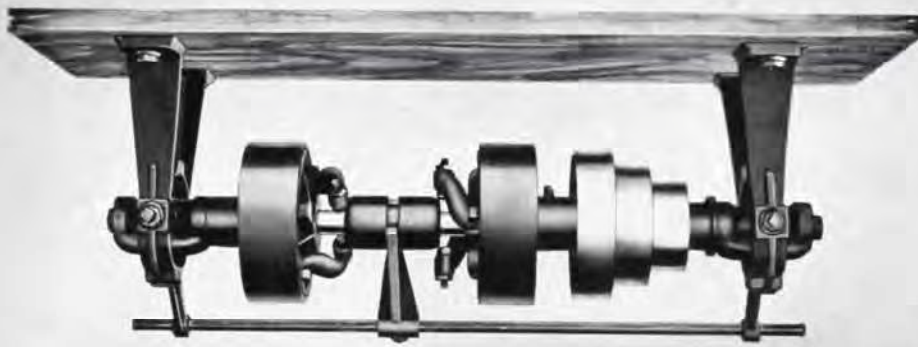


### Tool Post Grinder No. 14

This is the tool post grinder for small bench and home shop lathes. Small in design, yet rugged enough for machine shop work, this little "Tom Thumb" was brought for machine shop craftsmen, schools and for shops where an occasional bushing or center is to be ground. Despite its small size and low price, the "Tom Thumb" is capable of precision to a tenth (.0001"), and its  $\frac{1}{14}$  H.P. motor has tow speeds—10,000 and 22,599 r.p.m. Equipment consists of 1 belt, double end wrench, 1 grinding wheel, can of oil, 2 pulleys, 2 wheel collars.





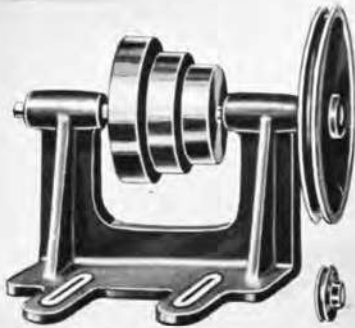


## COUNTER SHAFTS

**Double Friction Countershaft** (upper left). This countershaft has two friction clutch pulleys, one of which may be driven with an open belt and the other with a crossed belt permitting the lathe to be operated forward or in reverse. Two forward speeds for countershaft may be had by eliminating crossed belt and supplementing a large and small pulley on the line shaft, thereby providing 12 speeds. Drive pulleys are 6" in diameter for 2" belt.

**Plain Countershaft** (upper right). This countershaft is used in connection with a line shaft and flat belts. Has 3-step cone and tight and loose pulleys of 6" diameter for 2" wide flat belt.

**Motor Drive Countershaft** (left). This single countershaft has 3-step flat belt cone and 10" diameter V-belt sheave. A 2½" diameter motor pulley for ½" V-belt is furnished to be fitted on the shaft of the motor.



## OVERHEAD MOTOR DRIVES

**The Overhead Motor Drive Attachment** (left) is a very efficient and applicable unit for small lathe operation. A bracket mounted directly on top of the headstock, in place of the regular gear guards, supplies the motor seat and also the supporting members of the adjustable countershaft bracket. The countershaft bracket is adjustable for shifting or tightening the belts by means of a cam lever. Motor V-belt and flat belt are both adjustable for tension. All belts, gears and other moving parts are carefully guarded. The Overhead Motor Drive Attachment is furnished complete with flat belt for headstock cone, 10" V-belt pulley, 2½" V-belt motor pulley and a V-belt.

## STANDARD EQUIPMENT: Semi-Quick Series

The standard equipment included with each SHELDON semi-quick change lathe consists of: complete set of change gears for cutting 4-80 threads per inch, small face plate, compound rest, tool post, thread chasing dial, headstock and tailstock centers, center sleeve, necessary wrenches and book "The Care and Operation of a Lathe." (Top group, lower left)



## STANDARD EQUIPMENT: Quick Change Series

The standard equipment included with each SHELDON quick change gear lathe consists of: quick change gear box for cutting 4-224 threads per inch, small face plate, compound rest, tool post, thread chasing dial, headstock and tailstock centers, center sleeve, necessary wrenches and book "The Care and Operation of a Lathe." (Bottom group, lower left.)

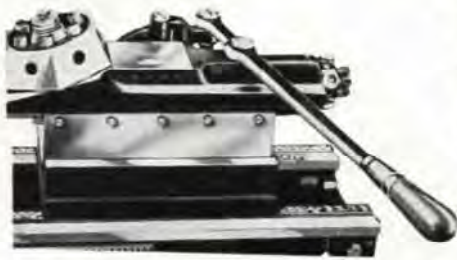
**Note:** Reversing drum switch furnished as standard equipment on underneath motor driven lathes only.

### "THE CARE AND OPERATION OF A LATHE"

The purpose of this manual is to enable the beginner to understand the modern metal-cutting lathe, its parts and their functions . . . to teach the proper care of a lathe . . . to explain the grinding of cutters; modern lathe tools and how they should be set-up; methods of holding the work; and, the performance of the basic lathe operations.







## HAND LEVER BED TURRET

Correctly designed turret for rapid and accurate machining of duplicate parts, turning, drilling, reaming, counter boring, threading, knurling, etc. Automatically.

the turret head registers one-sixth of a turn with each back movement of the hand lever. Length of tool operations regulated by adjustable stops provided for each of the six faces of turret head.

## HAND LEVER TYPE DRAW-IN COLLET CHUCK ATTACHMENT



This device makes it convenient to serve rod or bar stock through collet without stopping lathe. By regulating the cylinder of the adjustable chuck closer, the holding force of the collet can be set to any degree of resistance.

This particular attachment is a time saver and especially economical for rapid production in duplicate parts manufacturing. Complete attachment includes hardened and ground closing sleeve, spindle nose cap, and spanner wrench.

## HAND WHEEL TYPE DRAW-IN COLLET CHUCK ATTACHMENT

The Hand Wheel Type Draw-in Collet Chuck Attachment is very useful for general precision lathe work. The complete draw-in attachment consists of hollow draw bar with hand wheel, hardened and ground closing sleeve, spindle nose cap and spanner wrench.



### COLLETS

Round — Square — Hexagon

Collets for round work are furnished for use with either of the two types of Draw-in Collet Attachments. They are very accurately made from high grade tool steel, hardened and ground, inside and out.

Collets for square or hexagonal work, decimal and metric size collets, also special step collets, can be furnished. Prices on request.

### COLLET RACK

The collet rack provides a convenient holder for collets, centers and spindle sleeve. It is easily mounted on the back of the lathe bed.



## MILLING AND KEYWAY ATTACHMENT

The Milling and Keyway Cutting Attachment is very handy, especially for small shops that do not have enough work of this kind to justify a regular milling machine. It fits on the saddle of the lathe and swings in both horizontal and vertical planes and is graduated 180°. Vertical adjusting screw has a micrometer graduated collar.

## MILLING CUTTERS AND ARBORS

These Milling Cutters and Arbors for Milling Attachments are all made of High Speed Steel, hardened and ground. Write for Cutter and Arbor specifications to fit your special requirements.



## HAND LEVER TAILSTOCK

This is a very handy tailstock attachment for centering and drilling. Effective for quantity production. Either the hand lever or wheel of this tailstock can be used.



## 4-WAY TURRET TOOL POST

The 4-way Turret Tool Post provides for four standard tool holders. It is clamped into the regular tool post position on compound rest base of lathe. It works smoothly and registers perfectly for all requirements.



## DOUBLE TOOL POST ATTACHMENT

The Sheldon Double Tool Post Attachment provides a two way, front and back tool post operation that cuts a job time in half. The top slide is controlled by hand lever with adjustable stops for both front and back tools. Recommended for forming, rounding, knurling, cutting off, etc., of duplicate parts.





### Three Jaw Universal or Scroll Chuck

This chuck is exceptionally handy for general lathe work as it is automatically self-centering. It is furnished with two sets of jaws for inside and outside chucking.

#### Three Jaw Universal Chuck with Two Sets of Jaws

Rated Size	5"	6"	8"
Cat. No.	53	63	83

Note: When ordering chucks fitted to spindle specify O. D. of Spindle 1 3/4" or 2 1/4". See price sheet for additional charge for fitting chucks.



### Four Jaw Independent Chuck

The jaws are set independently as required for round or irregular work, either concentric or eccentric with the lathe spindle.

Note: When ordering chucks fitted to spindle specify O.D. Spindle 1 3/4" or 2 1/4".

Rated Size	6"	8"	10"
Cat. No.	64	84	104

### Chuck Plates

Chuck plates, threaded and fitted to spindle nose of lathe are provided specially for those wanting to fit their own chucks. When ordering specify required diameter of plate and also whether for 1 3/4" or 2 1/4" spindle.



### Large Face Plate

The large face plate has clamp slots, and is accurately threaded to fit lathe spindle nose. It is of sturdy cast steel with ribbed reinforced back. Used for general tool and machine shop work.

Lathe Size	10"	11"	12"
Diameter of Face Plate	9"	11"	12"
Cat. No.	L-185	K-184	M-184

Note: When ordering face plates fitted to spindle, specify whether for 1 3/4" or 2 1/4" spindle.



### Drill Pad

Used in tailstock as supporting face for drilling operations. 4" diameter. No. 2 M.T. Fits all SHELDON lathes.



### Crotch Center

Used in tailstock as "V" block support for drilling round work. No. 2 M.T. Fits all SHELDON lathes.



### Three Jaw Drill Chuck

For use in tailstock spindle for general drilling, reaming, etc. The jaws are made of high tempered steel and worked by strong forceful screw action, providing a powerful grip. 1/2" capacity. Arbor is extra.

Capacity	0-1/2"	3/8"-3/4"
Cat. No.	34	36



### Center Rest Chuck

This Center Rest Chuck is mounted in the tailstock of the lathe, and permits the turning of round work without the use of a center. The stationary bronze jaws provide a bearing, are adjusted for diameter and locked in place.

Cap.	1/4"-3/4"
Cat. No.	100



A



B

### Spindle Chucks

These key operated chucks are made to fit on the threaded spindle nose of SHELDON Lathes. Type A screws on spindle nose and type B comes with hollow arbor which replaces center. Both types are hollow and permit machining of long bars, rods, tubes, etc.

Type	A (for use on 1 3/4" spindle)	B (For use on 2 1/4" spindle)
Cap.	1/8"-3/4"	1/8"-3/4"
Cat. No.	59	40

### Lathe Centers

60° lathe centers. Made of tool steel, ground all over. Interchangeable for use in headstock or tailstock spindle of any SHELDON lathe. No. 2 M.T.



### Anti-Friction Bearing Live Center



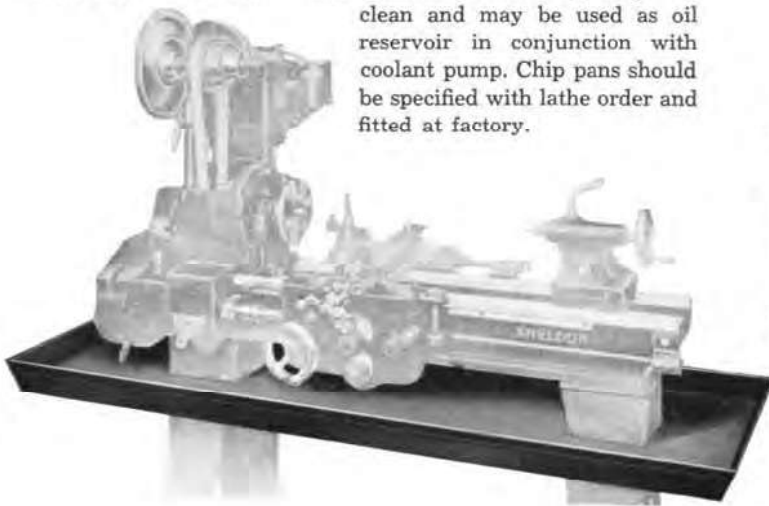
Live center pays for itself because it permits deeper cuts at higher speeds, turns heavier loads with safety, saves time and cost of worn out centers, speeds production by making work easier. Fits all SHELDON lathes. Cat. No. 225.





### SHELDON OIL AND CHIP PANS

Full length SHELDON Oil and Chip Pans are of heavy gauge sheet steel with rolled rim and welded corners. They keep floor clean and may be used as oil reservoir in conjunction with coolant pump. Chip pans should be specified with lathe order and fitted at factory.



### ADJUSTABLE THREAD CUTTING STOP

Fits permanently to lathe carriage. Enables operator to regulate depth of cut when turning or cutting screw threads.



### PLAIN CARRIAGE STOP

An efficient, inexpensive stop for facing, turning, boring, etc. Clamps on bed, stopping carriage at desired point.



### MICROMETER CARRIAGE STOP

A precision stop with micrometer adjustment. Thumb nut locks at any setting.



### THREAD CHASING DIAL

The Sheldon Thread Chasing Dial ends the need for reversing lathe when cutting threads. When cutting even threads, half nut is closed at any graduation on the dial, odd threads at any **numbered** graduation, and half threads at **odd number** graduations.



### FOLLOWER REST WITH TWO JAWS

The SHELDON Follow Rest holds long flexible shafts and rods in proper position and insures accurate tooling results by providing constant support at the tooling point. It is held in position on the lathe carriage with lock and adjustment screws, and travels with the lathe carriage.

#### Follower Rest with Two Jaws

Size of Lathe	10"	11"	12"
Catalog No.	L-209	K-209	M-209

### HINGED TYPE STEADY REST

The Sheldon Hinged Type Steady Rest is used to support long flexible shafts, rods and tubes when turning, boring, threading, etc. The Steady Rest is provided with adjustment bolts and lock screws for quick and easy attachment. Applicable for all work up to 3" diameter.



#### Hinged Type Steady Rest

Size of Lathe	Catalog No.	Maximum Capacity	Minimum Capacity
10"	L-576	3½"	1/8"
11"	K-575	3½"	1/8"
12"	M-575	3½"	1/8"



### HAND REST FOR WOOD TURNING

The Sheldon HAND REST for wood turning consists of convenient base that slides into Tool Post T-slot, and two T-rests, 4" and 8".

### BENT TAIL LATHE DOGS

These lathe dogs are used for working on centers, without chuck. Dropforged bodies with square-head or headless heat treated screws.

Size	Catalog No.	Catalog No. Headless Safety
3/8"	1	1-H
1/2"	2	2-H
3/4"	3	3-H
1"	4	4-H
1¼"	5	5-H
1½"	6	6-H
1¾"	7	7-H
2"	8	8-H



### DROP FORGED STEEL CLAMP DOG

As clamp or lathe dog, the Drop Forged Steel Clamp Dog securely holds stock of any shape. Construction of upper bar allows for considerable tilting without bending the screws. Carefully machined and hardened.



No.	Capacity Between Screws	Approx. Wt. Each in Pounds
11	1¾"	5/8
12	2¼"	1



# Tool Holders and Boring Tools for Sheldon 10", 11" and 12" Lathes

## LATHE TOOL HOLDERS



RIGHT HAND TOOL HOLDER



STRAIGHT TOOL HOLDER



LEFT HAND TOOL HOLDER

Drop forged, heat treated and tempered steel tool holders (straight, right-hand or left-hand shank) with tempered steel set screw.

	For 10" and 11" Lathes			For 12" Lathes		
	Size Shank	Size Cutter	Cat. No.	Size Shank	Size Cutter	Cat. No.
Straight	$\frac{3}{8} \times \frac{7}{8} \times 5$	$\frac{1}{4}$ sq.	O-S	$\frac{1}{2} \times 1\frac{1}{8} \times 6$	$\frac{5}{16}$ sq.	1-S
Right Hand	$\frac{3}{8} \times \frac{7}{8} \times 5$	$\frac{1}{4}$ sq.	O-R	$\frac{1}{2} \times 1\frac{1}{8} \times 6$	$\frac{5}{16}$ sq.	1-R
Left Hand	$\frac{3}{8} \times \frac{7}{8} \times 5$	$\frac{1}{4}$ sq.	O-L	$\frac{1}{2} \times 1\frac{1}{8} \times 6$	$\frac{5}{16}$ sq.	1-L

## CUTTING-OFF TOOL HOLDERS

Drop forged, heat treated and tempered steel tool holders



STRAIGHT



RIGHT HAND



LEFT HAND

Cutters are double beveled, held at an angle giving side clearance and top rack required. Supplied in three styles, straight, right-hand or left-hand.

	For 10" and 11" Lathes			For 12" Lathes		
	Size Shank	Size Cutter	Cat. No.	Size Shank	Size Cutter	Cat. No.
Straight	$\frac{3}{8} \times \frac{7}{8} \times 5$	$\frac{3}{16} \times \frac{5}{8}$	20	$\frac{1}{2} \times 1\frac{1}{8} \times 6$	$\frac{3}{16} \times \frac{5}{8}$	21
Right Hand	$\frac{3}{8} \times \frac{7}{8} \times 5$	$\frac{3}{16} \times \frac{5}{8}$	30-R	$\frac{1}{2} \times 1\frac{1}{8} \times 6$	$\frac{3}{16} \times \frac{5}{8}$	31-R
Left Hand	$\frac{3}{8} \times \frac{7}{8} \times 5$	$\frac{3}{16} \times \frac{5}{8}$	30-L	$\frac{1}{2} \times 1\frac{1}{8} \times 6$	$\frac{3}{16} \times \frac{5}{8}$	31-L

## BORING TOOL HOLDER



This tool holder includes Holder and Bar, 90°, 45° and 30° End Caps.

For 10" and 11" Lathes		
Size Shank	Size Cutter	Cat. No.
$\frac{3}{8} \times \frac{7}{8}$	$\frac{5}{16}$ sq.	8

For 12" Lathes		
Size Shank	Size Cutter	Cat. No.
$\frac{1}{2} \times 1\frac{1}{8}$	$\frac{1}{4}$ sq.	9



## ARMSTRONG 3-BAR BORING TOOL

This very rigid Boring Tool comprises 3 Armstrong Boring Bars with 90°, 45° and 30° (patented) End Caps, nine High Speed Cutters and Armstrong Comb. Wrench. A slight turn of one nut releases or fastens both Bar and Holder. Bars can be changed as needed almost instantly, thus allowing the operator to use the stiffest bar possible for each job, with the result that speeds and feeds can be increased and time saved.

For 10" and 11" Lathes		For 12" Lathes	
Size Cutter	Cat. No.	Size Cutter	Cat. No.
$\frac{3}{16}, \frac{1}{4}$	O-BB	$\frac{3}{16}, \frac{1}{4}, \frac{3}{8}$	I-B

## KNURLING TOOL HOLDERS



This knurling tool is self centering and the knuckle or joint has ample bearing to resist the severe strains of both end and side thrust.

## KNURLING TOOL with REVOLVING HEAD

The advantages of the revolving head knurling tool are apparent. The revolving head is fitted with three pairs of knurls, fine, medium and coarse, either of which can be used without the inconvenience and loss of time incident to changing knurls.



Knurls and pins are accurately made of Tool Steel suitably tempered. All other parts are Drop Forged or Bar Steel, hardened.

For 10" and 11" Lathes			For 12" Lathes		
Size Shank	Size Cutter	Cat. No.	Size Shank	Size Cutter	Cat. No.
$\frac{3}{8} \times \frac{7}{8} \times 5\frac{1}{2}$	$\frac{5}{8} \times \frac{3}{8}$	O-K	$\frac{1}{2} \times 1\frac{1}{2} \times 6\frac{1}{2}$	$\frac{3}{4} \times \frac{1}{4}$	I-K
$\frac{3}{8} \times \frac{7}{8} \times 5\frac{1}{2}$	$\frac{5}{8} \times \frac{3}{8}$	3-K-O	$\frac{1}{2} \times 1\frac{1}{2} \times 6\frac{1}{2}$	$\frac{3}{4} \times \frac{1}{4}$	3-K-I

## DIAMOND PATTERN • STAND. FACE • STRAIGHT LINE PATTERN • FULL FACE



COARSE 14 PITCH    MEDIUM 21 PITCH    FINE 33 PITCH    COARSE 14 PITCH    MEDIUM 21 PITCH    FINE 33 PITCH

## HIGH SPEED STEEL CUTTER BITS

Shaped, Sharpened and Ready for Use



Below are shown six cutter bits ground to shapes most effective for general use. Be sure to specify letters designating shapes of cutter bits when ordering.

	10" and 11" Lathe	12" Lathe
	Size Cutter	Size Cutter
Extra High Speed Steel Cutter Bits	$\frac{1}{4}$ sq.	$\frac{5}{16}$ sq.

## UNGROUND CUTTER BITS

The unground cutter bit is the same quality steel as those listed above. They are specially tempered and are ready for use when sharpened.



Extra High Speed Cutter Bits, Unground	10" and 11" Lathes	12" Lathes
	Size Cutter	Size Cutter
	$\frac{1}{4}$ Sq.	$\frac{5}{16}$ Sq.

## THREADING TOOL HOLDER—Drop Forged Steel

Sharpen cutter on top edge only. When ordering designate pitch or number of threads required per inch. Prices include threading tool, wrench and a high speed steel single cutter.



	For 10" and 11" Lathes		For 12" Lathes	
	Size Shank	Cat. No.	Size Shank	Cat. No.
Threading Tool Holder	$\frac{3}{8} \times \frac{7}{8} \times 5$	50	$\frac{1}{2} \times 1\frac{1}{8} \times 6$	51



# Electrical Equipment Supplied for Sheldon Lathes

## MOTORS FOR SHELDON LATHES

### THREE-PHASE MOTORS



Ball Bearing—Continuous Duty  
A.C.—60 Cycle

Three-Phase Motors are the ideal motors for any purpose and should be used wherever three phase service is available. These motors are especially made for machine tools.

### THREE-PHASE MOTORS — BALL BEARING

Cat. No.	H.P.	R.P.M.	Volts	Shpg. Wgt.
707S	1/3	1725	220	28
710S	1/2	1140	220	38
711S	1/2	1725	220	34
712S	1/2	1725	440	34
713S	1/2	3450	220	34
759S	3/4	1140	220	85
763S	3/4	1140	440	85
758S	3/4	1725	220	85
762S	3/4	1725	440	85
715S	3/4	3450	220	38
760S	1	1140	220	85
761S	1	1140	440	85
751S	1	1725	220	85
756S	1	1725	440	85
753S	1	3450	220	85

### CAPACITOR-START INDUCTION MOTORS

Ball Bearing—Continuous Duty  
A.C.—60 Cycle

Capacitor-Start Motors have high starting, accelerating and maximum torques.



### CAPACITOR-START INDUCTION MOTORS — BALL BEARING

Cat. No.	H.P.	R.P.M.	Volts	Shpg. Wgt.
622S	1/3	1725	110/220	33
607S	1/2	1725	110/220	36
608S	1/2	3450	110/220	37
650S	3/4	1725	110/220	46
609S	3/4	3450	110/220	85
651S	1	3450	110/220	85

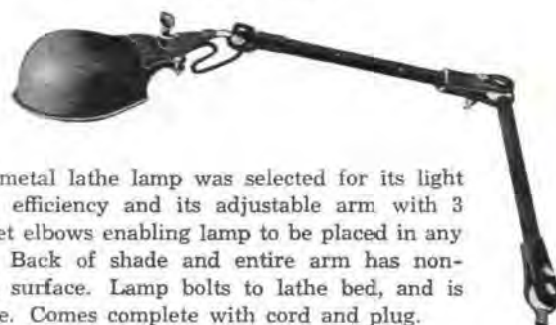
NOTE: For special motors having H.P., Voltage, Cycle, or Phase other than those listed above, and for specially insulated marine or tropical motors or other specification equipment, request quotations by mail.



### STARTER SWITCH

This Starter Switch is a drum type, reversing switch, used for operating the reversing motors on SHELDON Lathes. The Starter Switch handle has three distinct positions: "forward," "off" and "reverse." They are furnished in two types: Type A for use with single phase motors, Type B for use with 3-phase motors. Reversing drum switch furnished as standard equipment on underneath motor drive lathes only.

### LATHE LAMP



This all metal lathe lamp was selected for its light centering efficiency and its adjustable arm with 3 ball socket elbows enabling lamp to be placed in any position. Back of shade and entire arm has non-reflecting surface. Lamp bolts to lathe bed, and is removable. Comes complete with cord and plug.

### AMPLE CAPACITY OIL PUMP

This shows light weight oil pump chosen for the SHELDON Lathe installation. Motor operated, its constant velocity vane curvative and Venturi impeller inlet provides hydraulic efficiency as high as 70% with minimum wear.



### PORTABLE OIL PUMP

The main feature of this pump is its portability. Floor positioned—it can be installed with any sized lathe. A constant flow of coolant, easily regulated to the requirements of the work, preserves the life of the tool and speeds up production.





# Floor Space Requirements of SHELDON Precision Lathes

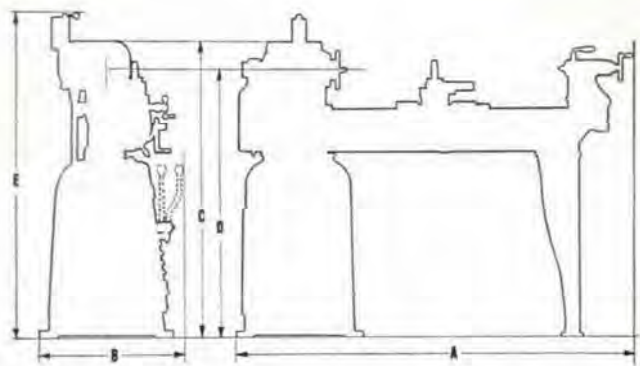
NOTE: In figuring floor space requirements for any Sheldon Lathe, allowances for operating clearances should be added to the lathe dimensions given in the tables below, namely:

40" to 48" clearance across the front of the lathe for the operator.

4½" clearance behind the lathe for the extension and bracket if the lathe is, or is to be, equipped with a taper attachment.

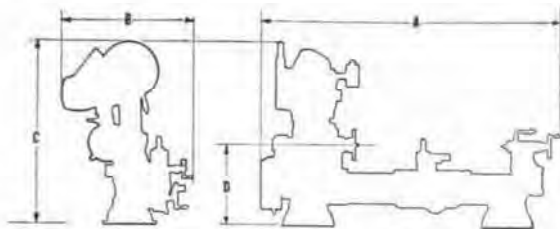
Approximately 15" clearance off the headstock end of the lathe so that the gear guard door can swing fully open for changing pick off gears.

Approximately 15" clearance is also required off the headstock end for removing the draw bar of a Draw Bar Collet Attachment while far greater clearance will be needed here if long bars are to be fed thru the collet. (See instructions on setting up a lathe on page 46.)



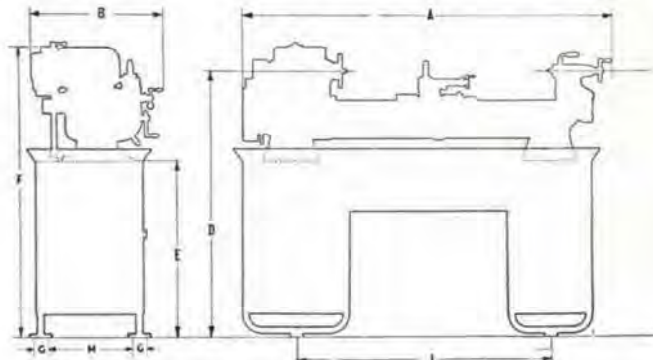
Underneath Drive Lathes

Size Lathe	Bed Length	A	B	C	D	E
10"	38"	47 1/2"	24"	43"	39 1/4"	48"
10"	44"	53"	24"	43"	39 1/4"	48"
10"	62 1/2"	72"	24"	43"	39 1/4"	48"
11"	44"	53 1/4"	24"	45"	40 7/8"	49 1/2"
11"	56"	65 1/2"	24"	45"	40 7/8"	49 1/2"
11"	62 1/2"	71 3/4"	24"	45"	40 7/8"	49 1/2"
11"	70"	79 3/4"	24"	45"	40 7/8"	49 1/2"
12"	44"	53 1/4"	24"	46"	41 7/8"	50 1/2"
12"	56"	65 1/2"	24"	46"	41 7/8"	50 1/2"
12"	62 1/2"	71 3/4"	24"	46"	41 7/8"	50 1/2"
12"	70 1/2"	79 3/4"	24"	46"	41 7/8"	50 1/2"



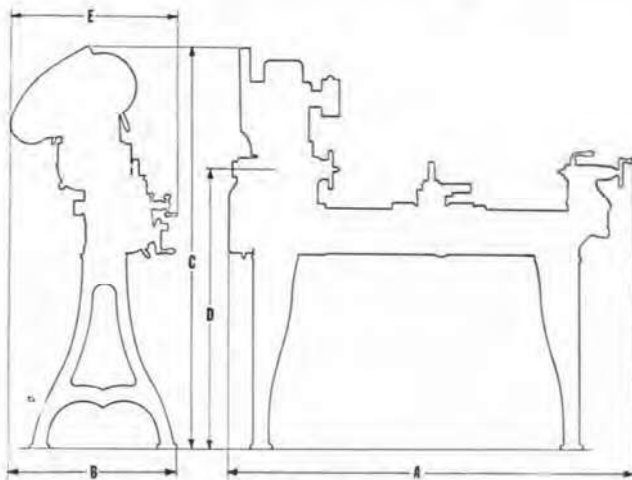
Bench Lathes with Overhead Motor Drive

Size Lathe	Bed Length	A	B	C	D
10"	38"	47 1/2"	23 1/4"	31"	13 3/8"
10"	44"	53 1/2"	23 1/4"	31"	13 3/8"
10"	62 1/2"	72"	23 1/4"	31"	13 3/8"
11"	44"	53"	26"	33 1/2"	15 1/2"
11"	56"	65"	26"	33 1/2"	15 1/2"
11"	62 1/2"	71"	26"	33 1/2"	15 1/2"
11"	70 1/2"	79"	26"	33 1/2"	15 1/2"
12"	44"	53"	26 1/2"	34 1/2"	16 1/2"
12"	56"	65"	26 1/2"	34 1/2"	16 1/2"
12"	62 1/2"	71"	26 1/2"	34 1/2"	16 1/2"
12"	70 1/2"	79"	26 1/2"	34 1/2"	16 1/2"



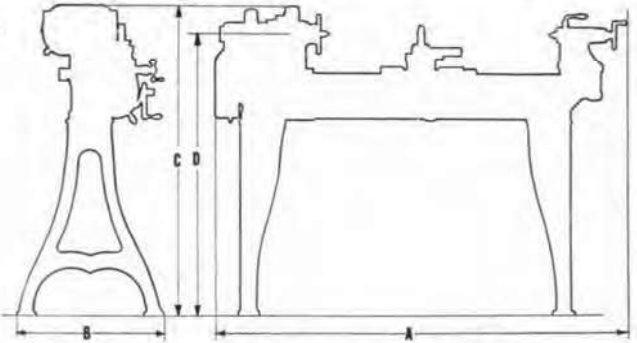
Lathe and Steel Bench Units

Size Lathe	Bed Length	A	B	C	D	E	F	1/8" Holes		
								G	H	I
10"	38"	47 1/2"	16 1/2"	49 1/8"	43 1/2"	30"	52 1/2"	3"	14 1/8"	32 1/8"
10"	44"	53"	16 1/2"	49 1/8"	43 1/2"	30"	52 1/2"	3"	14 1/8"	32 1/8"
11"	44"	53"	18"	49 1/8"	45 3/8"	30"	54"	3"	14 1/8"	32 1/8"
11"	56"	65"	18"	61 1/4"	45 3/8"	30"	54"	3"	14 1/8"	44 1/8"
12"	44"	53"	18"	49 1/8"	46 3/8"	30"	55"	3"	14 1/8"	32 1/8"
12"	56"	65"	18"	61 1/4"	46 3/8"	30"	55"	3"	14 1/8"	44 1/8"



Floor Lathes with Overhead Motor Drive

Size Lathe	Bed Length	A	B	C	D	E
10"	38"	47"	24"	57 3/4"	30 1/4"	23 1/4"
10"	44"	53"	24"	57 3/4"	30 1/4"	23 1/4"
10"	62 1/2"	71 1/2"	24"	57 3/4"	30 1/4"	23 1/4"
11"	44"	53 1/2"	25"	58"	40 7/8"	26"
11"	56"	63 1/2"	25"	58"	40 7/8"	26"
11"	62 1/2"	70 1/2"	25"	58"	40 7/8"	26"
11"	70 1/2"	78 1/2"	25"	58"	40 7/8"	26"
12"	44"	53 1/2"	26"	60"	41 7/8"	26 1/2"
12"	56"	54 1/2"	26"	60"	41 7/8"	26 1/2"
12"	62 1/2"	70 3/4"	26"	60"	41 7/8"	26 1/2"
12"	70 1/2"	78 3/4"	26"	60"	41 7/8"	26 1/2"



Floor Lathes for Countershaft Drive

Size Lathe	Bed Length	A	B	C	D
10"	38"	47 1/2"	23"	43 1/2"	39 1/4"
10"	44"	53 1/2"	23"	43 1/2"	39 1/4"
10"	62 1/2"	72"	23"	43 1/2"	39 1/4"
11"	44"	53"	23"	45 1/2"	40 7/8"
11"	56"	64"	23"	45 1/2"	40 7/8"
11"	62 1/2"	71"	23"	45 1/2"	40 7/8"
11"	70"	79"	23"	45 1/2"	40 7/8"
12"	44"	53"	23"	46 1/2"	41 7/8"
12"	56"	55"	23"	46 1/2"	41 7/8"
12"	62 1/2"	71"	23"	46 1/2"	41 7/8"
12"	70"	79"	23"	46 1/2"	41 7/8"



# SPECIFICATIONS of SHELDON LATHES

Type of Lathe <span style="float: right;">→</span>	10" Lathes Regular	10" Lathes 1" Collet Capacity	11" Lathes Bronze Bearing <span style="float: left;">←</span>
<b>CAPACITY AND CLEARANCES</b>			
Swing Over Bed and Saddle Wings	10 1/4"	11 1/4"	11 1/4"
Swing Over Saddle without Chip Guard	7 3/8"	8"	8"
Swing Over Saddle with Chip Guard	6 3/8"	7"	7 1/4"
Distance Between Centers	20", 26" or 42"	22" or 34"	24", 36", 42" or 48"
Carriage Length	10"	11 3/4"	11 3/4"
Carriage Bridge Width	3 3/4"	3 3/4"	3 3/4"
Bed Lengths	38", 44" or 62"	44" or 50"	44", 50", 62" or 70"
Bed Width	7"	8"	8"
Bed Height	5 1/2"	6 5/8"	6 5/8"
<b>THREADS AND FEEDS</b>			
<b>Model WQ—Worm Feed Apron, Quick Change Gears</b>			
Thread Cutting Range (48 T. P. I., R. H. and L. H.)	4 to 224 T. P. I.	4 to 224 T. P. I.	4 to 224 T. P. I.
Longitudinal Feeds Through Friction Clutch	.0009 to .026	.0003 to .0255	.0009 to .026
Cross Feeds Through Friction Clutch	.0008 to .024	.00026 to .024	.0008 to .024
<b>Model W—Worm Feed Apron, Semi-Quick Change Gears</b>			
Thread Cutting Range	4 to 80 T. P. I.	4 to 80 T. P. I.	4 to 80 T. P. I.
Longitudinal Feeds Through Friction Clutch	.00032 to .026	.0006 to .026	.0006 to .026
Cross Feeds Through Friction Clutch	.00029 to 0.24	.00046 to .024	.00056 to .022
<b>Model GQ—Plain Apron, Quick Change Gears</b>			
Thread Cutting Range (48 T. P. I., R. H. and L. H.)	4 to 224 T. P. I.	4 to 224 T. P. I.	4 to 224 T. P. I.
Longitudinal Feeds Through Half-Nut and Leadscrew	.0045 to .063	.0048 to .063	.0045 to .063
Cross Feed	Hand Operated	Hand Operated	Hand Operated
<b>Model G—Plain Apron, Semi-Quick Change Gears</b>			
Thread Cutting Range	4 to 80 T. P. I.	4 to 80 T. P. I.	4 to 80 T. P. I.
Longitudinal Feeds Through Half-Nut and Leadscrew	.0031 to .063	.0056 to .0224	.0056 to .026
Cross Feed	Hand Operated	Hand Operated	Hand Operated
Leadscrew Dia. and Threads Per Inch	3/4" x 8" T. P. I.	3/4" x 8" T. P. I.	3/4" x 8" T. P. I.
<b>HEADSTOCK</b>			
Hole Through Spindle	1 1/8"	1 3/8"	1 1/4"
Maximum Collet Capacity	3/4"	1"	3/4"
Front Spindle Bearing—Dia. and Length	1 5/8" x 2 1/2"	2" x 2 7/8"	1 5/8" x 2 1/8"
Rear Spindle Bearing—Dia. and Length	1 3/8" x 1 7/8"	1 1/4" x 2"	1 3/8" x 2"
Headstock Spindle Taper—Morse	No. 4	No. 5	No. 4
Size of Center—Morse Taper	No. 2	No. 2	No. 2
Spindle Nose Diameter and T. P. I.	1 3/4" x 8"	2 1/4" x 8"	1 1/4" x 8"
Width of Cone Pulley Step for Flat Belt Drives (overhead drive)	1 3/8"	1 3/8"	1 3/8"
Size of "V" Belt on "V" Belt Drive Pulley (underneath drive)	5/8"	7/8"	5/8"
Large Face Plate Diameter	9"	11"	11"
Small Dog Plate Diameter	5 1/8"	5 5/8"	5 1/2"
<b>SPINDLE SPEEDS</b>			
<b>Overhead Motor Drive</b>			
<b>Standard Spindle Speeds</b>			
R.P.M. of Spindle, open belt	205-391- 744	205-391- 744	235-391- 649
R.P.M. of Spindle, back gears engaged	37- 70- 133	37- 70- 133	42- 70- 116
<b>High Spindle Speeds</b>			
R.P.M. of Spindle, open belt	373-710-1348	373-710-1348	430-714-1184
R.P.M. of Spindle, back gears engaged	60-127- 237	66-127- 237	77-128- 212
<b>"E" Type Underneath Motor Drive</b>			
<b>Standard Spindle Speeds</b>			
R.P.M. of Spindle, open belt	220-326-463- 699	220-326-463- 699	220-326-463- 699
R.P.M. of Spindle, back gears engaged	39- 58- 83- 125	39- 58- 83- 125	39- 58- 83- 125
<b>High Spindle Speeds</b>			
R.P.M. of Spindle, open belt	280-482-788-1355	280-482-788-1355	280-482-788-1355
R.P.M. of Spindle, back gears engaged	50- 87-142- 244	50- 87-142- 244	50- 87-142- 244
<b>"U" Type Underneath Motor Drive</b>			
<b>Standard Spindle Speeds</b>			
R.P.M. of Spindle, open belt	188-277-462- 690	188-277-462- 690	188-277-462- 690
R.P.M. of Spindle, back gears engaged	34- 50- 84- 122	34- 50- 84- 122	34- 50- 84- 122
<b>High Spindle Speeds</b>			
R.P.M. of Spindle, open belt	258-373-838-1211	258-373-838-1211	258-373-838-1211
R.P.M. of Spindle, back gears engaged	48- 67-150- 216	48- 67-150- 216	48- 67-150- 216
<b>COMPOUND REST</b>			
Cross Slide Will Travel	7 1/4"	7 1/2"	7 1/4"
Angular Feed of Cross Slide	2 1/2"	2 1/2"	2 1/2"
<b>TOOL POST</b>			
Size of Opening for Tool Holder Shank	1/2" x 1 1/4"	5/16" x 2"	5/16" x 2"
Size of Cutter Bit Tool Holder Takes	1/4"	1/4"	1/4"
<b>TAILSTOCK</b>			
Size of Morse Taper Center	No. 2	No. 2	No. 2
Spindle Travel	2 1/2"	3"	3"
Spindle Diameter	1 1/8"	1 1/4"	1 1/4"
Each Graduation on Tailstock Advances Spindle	3/8"	1/4"	1/4"
Tailstock Top Will Set Over for Taper Turning	3/4"	1"	1"
<b>MOTOR</b>			
Horse Power Recommended	1/2 H.P.	3/4 H.P.	1/2 H.P.
R.P.M. Recommended	1725 R.P.M.	1725 R.P.M.	1725 R.P.M.
<b>TAPER ATTACHMENT</b>			
Maximum Length Turned in One Setting	7 1/2" Pl. T. Att.	7 1/2" Pl. T. Att.	7 1/2" Pl. T. Att.
Maximum Taper per Foot	9 1/2" Telescopic T. Att. 3"	9 1/2" Telescopic T. Att. 3"	9 1/2" Telescopic T. Att. 3"
<b>STEADY REST</b>			
Capacity	3 1/2"	3 1/2"	3 1/2"
<b>FOLLOWER REST</b>			
Capacity	3 1/2"	3 1/2"	3 1/2"



# SPECIFICATIONS of SHELDON LATHES

Type of Lathe <span style="font-size: 2em;">→</span>	11" Lathes Roller or Ball Bearing	12" Lathes With Bronze Bearing	12" Lathes Roller or Ball Bearing
<b>CAPACITY AND CLEARANCES</b>			
Swing Over Bed and Saddle Wings.....	11¼"	12¼"	12¼"
Swing Over Saddle without Chip guard.....	8"	9"	9"
Swing Over Saddle with Chip Guard.....	7½"	8"	8"
Distance Between Centers.....	24", 36", 42" or 48"	24", 36", 42" or 48"	24", 36", 42" or 48"
Carriage Length.....	11¾"	13"	13"
Carriage Bridge Width.....	3¾"	4½"	4½"
Bed Lengths.....	44", 56", 62" or 70"	44", 56", 62" or 70"	44", 56", 62" or 70"
Bed Width.....	8"	8"	8"
Bed Height.....	6⅝"	6⅝"	6⅝"
<b>THREADS AND FEEDS</b>			
<b>Model WQ—Worm Feed Apron, Quick Change Gears</b>			
Thread Cutting Range (48 T. P. I., R. H. and L. H.).....	4 to 224 T. P. I.	4 to 224 T. P. I.	4 to 224 T. P. I.
Longitudinal Feeds Through Friction Clutch.....	.0009 to .026	.0009 to .026	.0009 to .026
Cross Feeds Through Friction Clutch.....	.0008 to .024	.0008 to .024	.0008 to .024
<b>Model W—Worm Feed Apron, Semi-Quick Change Gears</b>			
Thread Cutting Range.....	4 to 80 T. P. I.	4 to 80 T. P. I.	4 to 80 T. P. I.
Longitudinal Feeds Through Friction Clutch.....	.0006 to .026	.00049 to .026	.0006 to .026
Cross Feeds Through Friction Clutch.....	.0005 to .024	.00046 to .024	.0005 to .024
<b>Model GQ—Plain Apron, Quick Change Gears</b>			
Thread Cutting Range (48 T. P. I., R. H. and L. H.).....	4 to 224 T. P. I.	4 to 224 T. P. I.	4 to 224 T. P. I.
Longitudinal Feeds Through Half-Nut and Leadscrew.....	.0048 to .063	.0048 to .063	.0048 to .063
Cross Feed.....	Hand Operated	Hand Operated	Hand Operated
<b>Model G—Plain Apron, Semi-Quick Change Gears</b>			
Thread Cutting Range.....	4 to 80 T. P. I.	4 to 80 T. P. I.	4 to 80 T. P. I.
Longitudinal Feeds Through Half-Nut and Leadscrew.....	.0056 to .0224	.0048 to .0224	.0048 to .0224
Cross Feed.....	Hand Operated	Hand Operated	Hand Operated
Leadscrew Dia. and Threads Per Inch.....	¾" and ⅞" x 8" T. P. I.	⅞" x 8" T. P. I.	¾" x 8" T. P. I.
<b>HEADSTOCK</b>			
Hole Through Spindle.....	1½"	1½"	1½"
Maximum Collet Capacity.....	1"	1"	1"
Front Spindle Bearing—Dia. and Length.....	Precision Duplex Ball or Roller Bearing	2" x 2⅞"	Precision Duplex Ball or Roller Bearing
Rear Spindle Bearing—Dia. and Length.....	Precision Ball or Roller Bearing	1½" x 2"	Precision Ball or Roller Bearing
Headstock Spindle Taper—Morse.....	No. 5	No. 5	No. 5
Spindle Nose Diameter and T. P. I.....	No. 2	No. 2	No. 2
Width of Cone Pulley Step for Flat Belt Drives (overhead drive).....	2¼" x 8"	2¼" x 8"	2¼" x 8"
Size of "V" Belt on "V" Belt Drive Pulley (underneath drive).....	1½"	1½"	1½"
Large Face Plate Diameter.....	⅞"	⅞"	⅞"
Small Dog Plate Diameter.....	11"	12"	12"
	6"	6"	6"
<b>SPINDLE SPEEDS</b>			
<b>Overhead Motor Drive</b>			
Standard Spindle Speeds			
R.P.M. of Spindle, open belt.....	235-391-649	235-391-649	235-391-649
R.P.M. of Spindle, back gears engaged.....	42-70-116	42-70-116	42-70-116
High Spindle Speeds			
R.P.M. of Spindle, open belt.....	645-1067-1776	430-714-1184	645-1067-1776
R.P.M. of Spindle, back gears engaged.....	115-191-317	77-128-212	115-191-317
<b>"E" Type Underneath Motor Drive</b>			
Standard Spindle Speeds			
R.P.M. of Spindle, open belt.....	220-326-463-699	220-326-463-699	220-326-463-699
R.P.M. of Spindle, back gears engaged.....	39-58-83-125	39-58-83-125	39-58-83-125
High Spindle Speeds			
R.P.M. of Spindle, open belt.....	280-482-788-1355	280-482-788-1355	280-482-788-1355
R.P.M. of Spindle, back gears engaged.....	50-87-142-244	50-87-142-244	50-87-142-244
<b>"U" Type Underneath Motor Drive</b>			
Standard Spindle Speeds			
R.P.M. of Spindle, open belt.....	188-277-462-690	188-277-462-690	188-277-462-690
R.P.M. of Spindle, back gears engaged.....	34-50-84-122	34-50-84-122	34-50-84-122
High Spindle Speeds			
R.P.M. of Spindle, open belt.....	258-373-838-1211	258-373-838-1211	258-373-838-1211
R.P.M. of Spindle, back gears engaged.....	48-67-150-216	48-67-150-216	48-67-150-216
<b>COMPOUND REST</b>			
Cross Slide Will Travel.....	7¼"	7¼"	7¼"
Angular Feed of Cross Slide.....	3½"	3½"	3½"
<b>TOOL POST</b>			
Size of Opening for Tool Holder Shank.....	1⅞" x 2"	⅞" x 2½"	⅞" x 2½"
Size of Cutter Bit Tool Holder Takes.....	¼"	⅜"	⅜"
<b>TAILSTOCK</b>			
Size of Morse Taper Center.....	No. 2	No. 2	No. 2
Spindle Travel.....	3"	3"	3"
Spindle Diameter.....	1¼"	1¼"	1¼"
Each Graduation on Tailstock Advances Spindle.....	⅛"	⅛"	⅛"
Tailstock Top Will Set Over for Taper Turning.....	1¼"	1¼"	1¼"
<b>MOTOR</b>			
Horse Power Recommended.....	½ H.P.	¾ H.P.	¾ H.P.
R.P.M. Recommended.....	1725 R.P.M.	1725 R.P.M.	1725 R.P.M.
<b>TAPER ATTACHMENT</b>			
Maximum Length Turned in One Setting.....	7½" Pl. T. Att. 9½" Telescopic T. Att.	7½" Pl. T. Att. 9½" Telescopic T. Att.	7½" Pl. T. Att. 9½" Telescopic T. Att.
Maximum Taper per Foot.....	3"	3"	3"
<b>STEADY REST</b>			
Capacity.....	3½"	3½"	3½"
<b>FOLLOWER REST</b>			
Capacity.....	3½"	3½"	3½"



# SHELDON MACHINE CO., INC.

4240-4258 NORTH KNOX AVENUE  
CHICAGO 41, ILL. U. S. A.

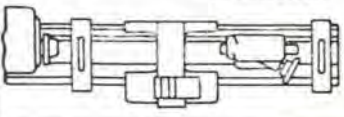
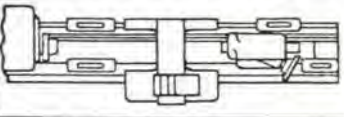
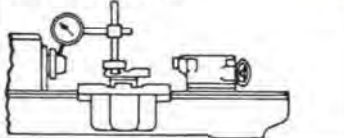
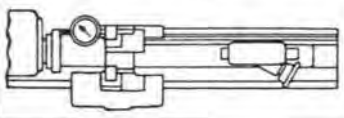
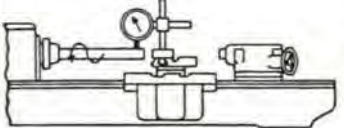
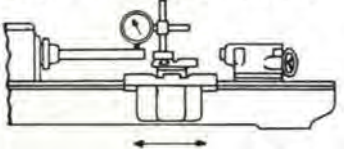
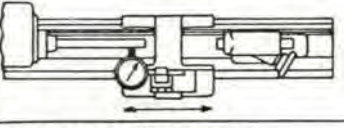
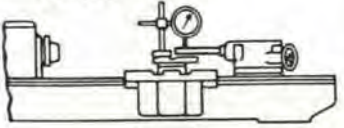
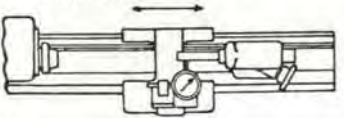
**LUBRICATE LATHE WITH  
No. 10 ENGINE OIL BEFORE RUNNING**

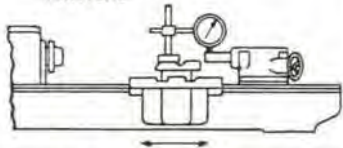
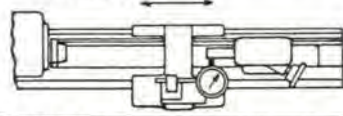
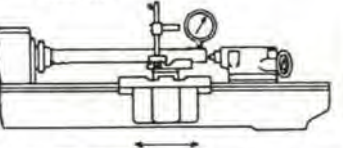
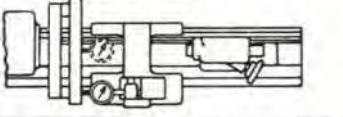
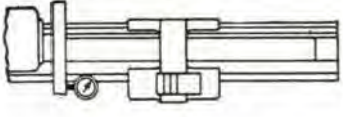
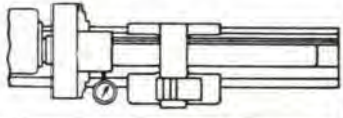
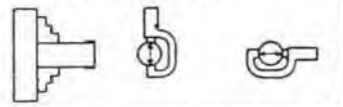
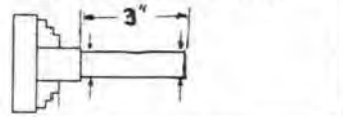
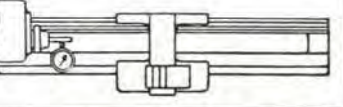
**TEST  
SHEET**

Order No. \_\_\_\_\_

Lathe Serial No. \_\_\_\_\_

Motor Serial No. \_\_\_\_\_

	LIMIT	ACTUAL
<b>BED LEVEL — TRANSVERSE DIRECTION</b> 	WHEN USING PRECISION LEVEL, BOTH READINGS TO BE WITHIN .0005 IN 12 INCHES	
<b>BED LEVEL—LONGITUDINAL DIRECTION</b> 	WHEN USING PRECISION LEVEL ALONG BED MAXIMUM READING TO BE WITHIN .001 IN 12 INCHES	
<b>SPINDLE NOSE RUNOUT</b> 	INDICATOR READING 0 to .0003	
<b>CAM ACTION OF SPINDLE</b> 	INDICATOR READING 0 to .0005	
<b>SPINDLE TAPER RUNOUT</b> 	TOTAL INDICATOR READING AT END OF 12 INCH TEST BAR 0 to .0006 AT END OF SPINDLE NOSE 0 to .0003	
<b>HEADSTOCK ALIGNMENT - VERTICAL</b> 	HIGH AT END OF 12 INCH TEST BAR 0 to .0005	
<b>HEADSTOCK ALIGNMENT - HORIZONTAL</b> 	AT END OF 12 INCH TEST BAR 0 to .0003	
<b>TAILSTOCK TAPER ALIGNMENT - VERTICAL</b> 	HIGH AT END OF 8 INCH TEST BAR 0 to .0005	
<b>TAILSTOCK TAPER ALIGNMENT - HORIZONTAL</b> 	END OF 8 INCH TEST BAR 0 to .0005	

	LIMIT	ACTUAL
<b>TAILSTOCK SPINDLE ALIGNMENT - VERTICAL</b> 	HIGH AT END OF SPINDLE WHEN FULLY EXTENDED 0 to .001	
<b>TAILSTOCK SPINDLE ALIGNMENT - HORIZONTAL</b> 	AT END OF SPINDLE WHEN FULLY EXTENDED 0 to .001	
<b>VERTICAL ALIGNMENT OF HEAD &amp; TAIL CENTERS</b> 	HIGH AT TAILSTOCK .0005 to .001	
<b>CROSS SLIDE ALIGNMENT</b> 	TO FACE HOLLOW OR CONCAVE ONLY ON 10 INCH DIAMETER 0 to .0005	
<b>FACE PLATE RUN OUT</b> 	ON FACE AT NOMINAL DIAMETER 0 to .001	
<b>CHUCK - RUN OUT</b> 	BAR TEST 3" FROM END OF JAW BARDIA. SAME AS HOLE .003 SUBJECT TO CHUCK INACCURACY	
<b>LATHE MUST TURN ROUND WITH WORK MOUNTED IN CHUCK</b> 	WITHIN .0003	
<b>LATHE MUST TURN CYLINDRICAL WITH WORK MOUNTED IN CHUCK</b> 	WITHIN .0003	
<b>COLLET CHUCK - RUN OUT</b> 	ONE INCH FROM SPINDLE 0 to .001	
<b>BACK LASH ON CROSS FEED - SCREW ON COMPOUND REST SCREW</b>	.004	

INSPECTED \_\_\_\_\_

APPROVED \_\_\_\_\_

DATE \_\_\_\_\_



# Uncrating and Setting Up a Sheldon Lathe

All SHELDON Lathes come completely assembled, tightened up and ready to be placed on the floor, oiled and put to work. They come crated with bench legs, floor legs or pedestal base and motor drives (if any) attached, with all machined and hand scraped parts protected with heavy grease, un-machined parts painted, the entire lathe wrapped in a water and grease-proof cover and strongly braced and crated. In each crate is a box of "Standard Equipment."

When uncrating, first remove inside cross braces, then remove bottom outside cross braces, loosen upright boards completely around the base and lift the crate off the lathe. Great care should be taken in loosening crate as a slip of the hammer or bar can do serious damage to the lathe.



Sheldon Bench Lathe crated for local delivery. In uncrating, first loosen cross braces and uprights at bottom and lift crate off the lathe.

With lathe uncrated, next open your box of "Standard Equipment" and check items included against the "Standard Equipment" listed with that model lathe in the Sheldon Catalog. After all parts are accounted for, crating materials may be removed and you are ready to move your lathe into working position.

In selecting the proper location for your lathe remember that (1) operation is from the apron side of lathe, allow at least 40" to 48" operator clearance in front of the lathe. (2) That the best working light should shine over the operator's shoulders and should be ample. (3) That lathe must be on a solid (concrete if possible) foundation. If on wood floor—flooring should be braced if necessary to prevent sagging or settling, because the lathe must be set solidly, squarely and rigidly and must be *level* if it is to work accurately. (4) That allowance should be made back end and overhead for later addition of taper attachments, overhead motor drive or other acces-



Check level in three places

sories. End clearance of the headstock should be provided where possible if bar stock is to be fed through the spindle. Where the placing of more than one lathe is contemplated arrangement in oblique rows will save much floor space as long bar stock for each machine can be fed from stock rests placed behind the adjacent lathe. (5) Bench lathes should be mounted on a *heavy, rigid and level* bench which should be about 28" high.

Before permanently anchoring the lathe to the floor or bench be sure that the bed is absolutely level. (See Cut) *Remember, no lathe can do accurate work unless it is solidly anchored and level, both along and across the bed.* Shim up any low points in floor or bench using sheet steel or other non-compressible material. After tightening anchor bolts, check again for level. *Use a precision level.*

## How to Order a Lathe

When ordering standard bronze-bearing lathes, check the model number as follows: The first two digits represent the swing, i.e., 10", 11" or 12". The second two digits represent the center distance, i.e., 20", 24", 26", 36", 40", 48".

The first letter following the number represents the types of leg, i.e., "B" for Bench and "F" for Floor. The next letter indicates the type of drive, i.e., "M" for Headstock Motor and "C" for Counter-shaft drive. If a Worm Feed Apron is desired add "W" as the third letter. If a Full Quick Change Gear Box is desired add "Q" as the last letter.

When ordering Pedestal Base Legs precede your model number with the type of Underneath Drive desired, i.e., "U" and "E", and proceed as in above paragraph except that since the drive and mounting is already indicated, there will be no drive or leg type letter after the number.

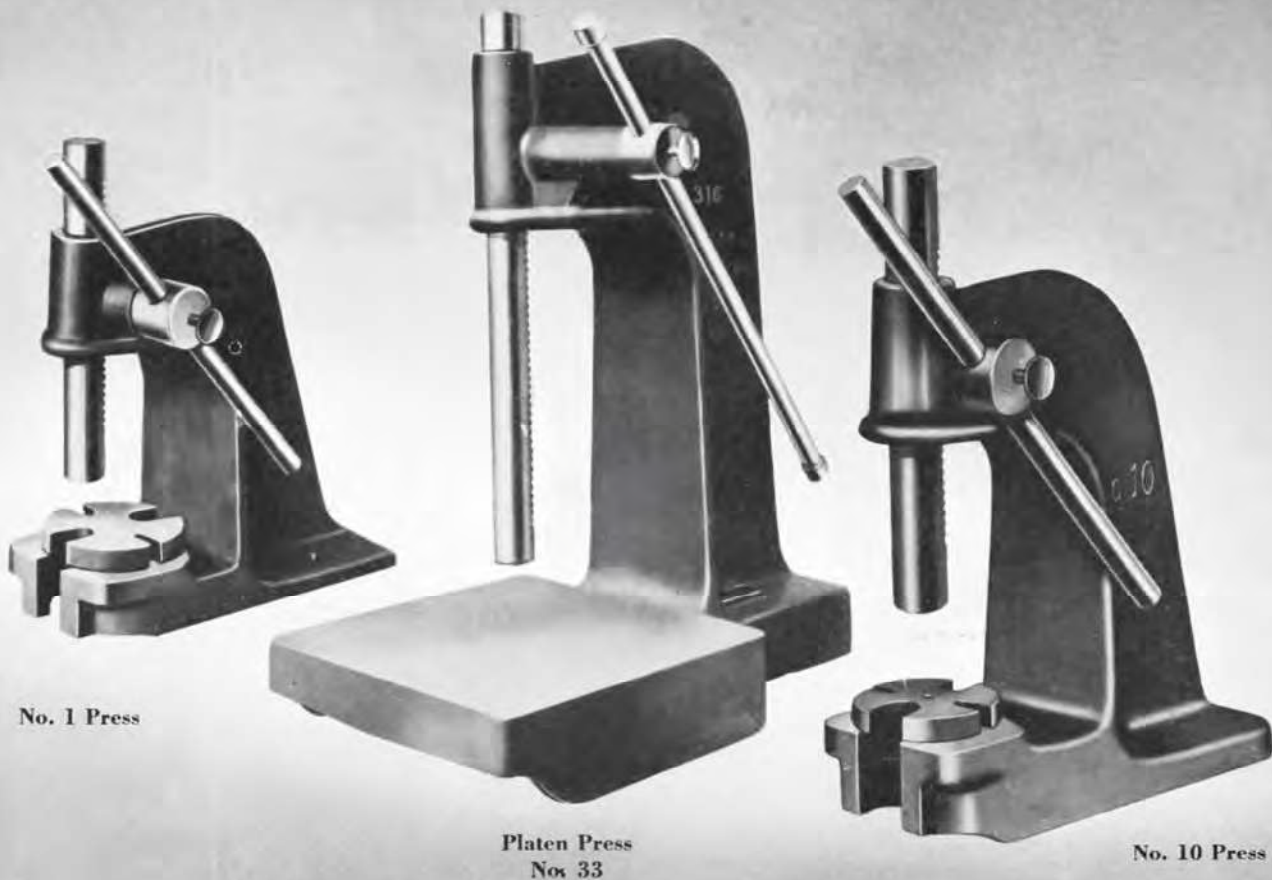
When ordering lathes with Ball or Roller Spindle Bearings the code letter "BB" or "TRB" precede the model number. Code notations at bottom of each table will help clarify any question you may have in checking the number while ordering.

## GUARANTEE

Every SHELDON product is guaranteed to be accurate and mechanically correct when it leaves our factory and is guaranteed to give satisfactory service. Any part that is found to be defective in workmanship or material within one year from date of purchase will be repaired or replaced.

**SHELDON MACHINE CO., INC.**





No. 1 Press

Platen Press  
No. 33

No. 10 Press

## SHELDON ARBOR PRESSES

Frames are of semi-steel designed and engineered to give the greatest possible strength without unnecessary weight. The Rams are alloy steel, heat treated and ground to size. Gears are alloy steel, heat treated to withstand shock — will not crystallize, will not strip. Rams are round for maximum convenience and utility. The unique SHELDON Round Ram Aligner, available only on SHELDON Arbor Presses, assures accurate and permanent alignment of a round ram. In the extensive SHELDON Line you will find Arbor Presses exactly suited to your needs — each a quality tool that will give long, satisfactory service.

### The SHELDON Arbor Press Ram Aligner

This Ram Aligner (an exclusive SHELDON patented feature) is a major advance in Arbor Press design, consisting of a hardened and ground steel segment which can be adjusted to a light sliding fit against the top of the ram teeth. It maintains accurate alignment of the ram by eliminating all torsional or rotary movement. Combined with the round ram feature this provides a tool of universal application and maximum capacity.

Any SHELDON Arbor Press can be furnished with a SHELDON Ram Aligner if specified. See price list.

### No. 33 (Series) Press

No. 33 (Series) Presses can be furnished with Platens 10 x 10, 12 x 12, 14 x 14 and 16 x 16 inches and with plain top or provided with various sized holes in the Platen directly under the Ram. These large Platen Presses are used in connection with cutting and marking dies in assembly work such as defense jobs in fitting and shaping gun mechanisms, etc.

### No. 1 Press

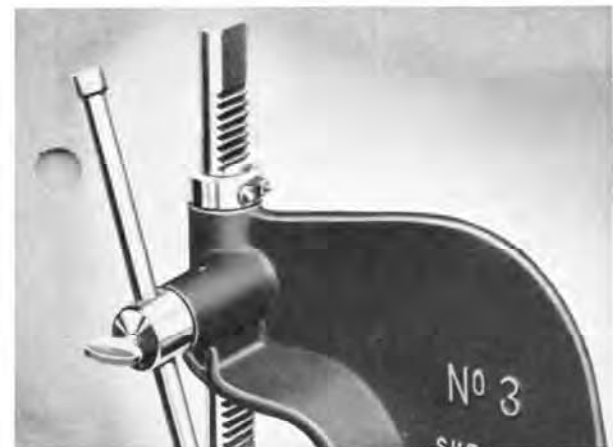
This Press is very useful for small work where comparatively light pressure is required. It has a large field of usefulness among manufacturers of typewriters, adding and calculating machines, electrical instruments, etc.

### No. 10 Press

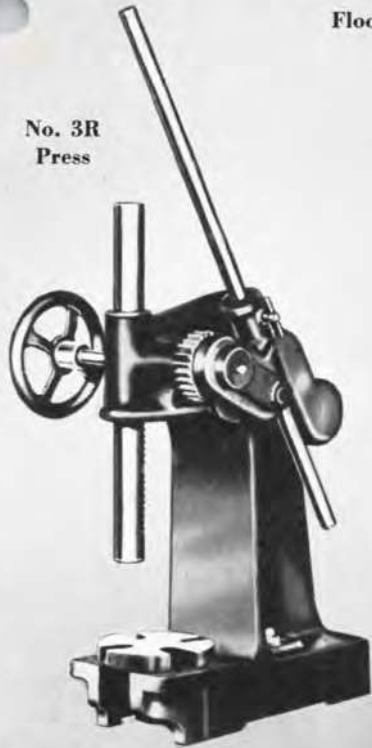
This Press meets the insistent demand for a Press slightly larger than the No. 1, yet not as large as the No. 2. It is a very popular size for all around work.

### SPECIFICATIONS — SHELDON ARBOR PRESSES

Number of Press	1	10	33
Largest Dia. Press will take (inches)...	7	9	18
Largest Dia. Mandrel (inches).....	1 <sup>1</sup> / <sub>8</sub>	1 <sup>1</sup> / <sub>4</sub>	
Height over Plate (inches).....	4 <sup>1</sup> / <sub>4</sub>	5 <sup>3</sup> / <sub>4</sub>	
Maximum Height will take (inches)...	4 <sup>3</sup> / <sub>4</sub>	6 <sup>1</sup> / <sub>4</sub>	18
Height of Frame (inches).....	9 <sup>1</sup> / <sub>8</sub>	11 <sup>1</sup> / <sub>2</sub>	31
Size of Ram, round (inches).....	1	1 <sup>1</sup> / <sub>4</sub>	1 <sup>7</sup> / <sub>8</sub>
Movement of Ram (inches).....	5	6 <sup>1</sup> / <sub>2</sub>	18 <sup>1</sup> / <sub>2</sub>
Leverage.....	25 to 1	30 to 1	48 to 1
Pressage (tons).....	<sup>3</sup> / <sub>4</sub>	1	5
Dimensions of Base (inches).....	4 x 9 <sup>3</sup> / <sub>4</sub>	4 x 11 <sup>1</sup> / <sub>2</sub>	
Net Weight (pounds).....	17	25	265
Shipping Weight (pounds).....	20	30	300

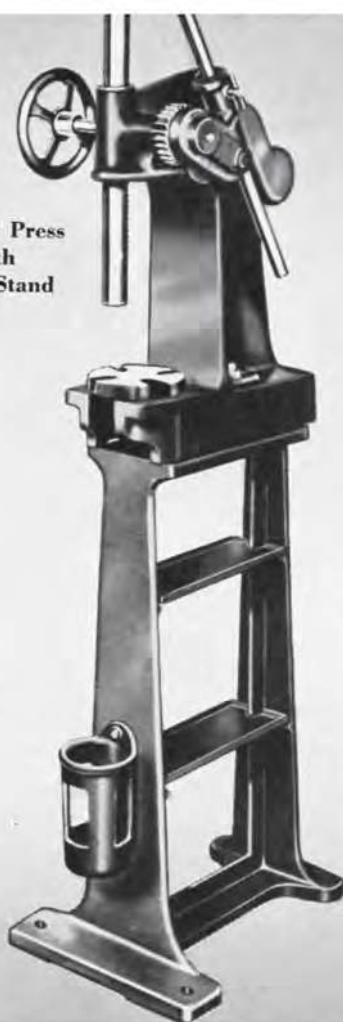






No. 3R Press

No. 3R Press with Floor Stand



No. 4 Press with Floor Stand



No. 4 Press



## SHELDON ARBOR PRESSES

### No. 2 Press

A very handy press for medium sized work. Can be mounted directly on lathes from 10 to 16 inch swing. This press can be furnished with floor stand or 14" hand wheel or both. The 14" pilot wheel adds speed to all arbor press work where variable jobs are going through. The floor stands are unusually heavy and provide a permanently solid base for Arbor Press thereby adding to its efficiency.

### No. 2 Armature Press

This press was specially designed for electric repair shops and auto service stations. It serves as both a time and labor saving device in pressing bearings on or off armature shafts, etc. The lower end of the ram is equipped with a removable pin  $\frac{3}{8}$ " diameter and special armature platen. No. 2A has

plain lever and can be furnished with 14" pilot wheel as well as floor stand. Pilot wheel is effective for quick successive action especially on short or narrow job units. The floor stand equipped with arbor press, when located in series with related work such as found on assembly lines, helps to raise the efficiency of a plant or shop.

See Illustration, lower left: All SHELDON Arbor Press Floor Stands are provided with removable metal shelves which serve conveniently as carriers to hold quantities of job units.

Vertical T-shaped reinforcements in leg construction add to their strength and safety. All stands are equipped with cast iron pots for catching mandrels, shafts, pins, spindles, etc. The floor stand provides a particularly solid base for arbor press of any specified type or size.

### SPECIFICATIONS — SHELDON ARBOR PRESSES

Number of Press	1	10	2	2A	33
Largest Dia. Press will take (inches)	7	9	11	11	18
Largest Dia. Mandrel (inches)	1 $\frac{1}{8}$	1 $\frac{1}{4}$	1 $\frac{1}{4}$		
Height over Plate (inches)	4 $\frac{3}{4}$	5 $\frac{3}{4}$	9 $\frac{3}{4}$		
Maximum Height will take (inches)	4 $\frac{3}{4}$	6 $\frac{1}{4}$	10 $\frac{1}{2}$	15	18
Height of Frame (inches)	9 $\frac{5}{8}$	11 $\frac{1}{2}$	18 $\frac{1}{2}$	23	31
Size of Ram, round (inches)	1	1 $\frac{1}{4}$	1 $\frac{1}{2}$	1 $\frac{1}{2}$	1 $\frac{7}{8}$
Movement of Ram (inches)	5	6 $\frac{1}{2}$	12	17 $\frac{1}{4}$	18 $\frac{1}{2}$
Leverage	25 to 1	30 to 1	35 to 1	35 to 1	48 to 1
Pressure (tons)	3 $\frac{3}{4}$	1	2	2	5
Dimensions of Base (inches)	4 x 9 $\frac{3}{4}$	4 x 11 $\frac{1}{2}$	6 x 17	7 x 17	
Net Weight (pounds)	17	25	95	95	265
Shipping Weight (pounds)	20	30	115	115	300

### FLOOR STANDS

For Press Number	No. 2	No. 3	No. 4
Height (inches)	36	35	30
Dimensions of Top (inches)	6 $\frac{1}{2}$ x 13 $\frac{1}{2}$	8 x 16 $\frac{1}{2}$	11 x 20
Dimensions of Base (inches)	19 x 19	18 x 20	21 x 26
Net Weight (pounds)	150	170	240
Shipping Weight (pounds)	175	200	280







No. 3 Press



No. 3 Press with Floor Stand



No. 3 Press with 24" Pilot Wheel

## SHELDON ARBOR PRESSES

This is the most popular size Arbor Press we make, and is commonly used with lathes from 14 to 18 inch swing. Can be furnished with either a 14" or 24" Hand Wheel or plain lever as shown above. The 24" Hand Wheel provides large leverage to the No. 3 Press which is capable of unusually heavy duty.

These presses may be provided with Floor Stands to provide the proper height to give the press the best mechanical advantage when bearing down on Hand Wheel or Lever. When benches are not accessible, the Floor Stand is especially fitting to limited space and is handy for use in layouts where more than one person uses Arbor Press. A Floor Stand

equipment is not expensive and packs a number of unseemingly values in its usefulness.

Platens are furnished in different shapes and sizes for various kinds of jobs. The flat Platen (top illustration, lower left) available with the No. 33 press only, is for cutting and machining heavy dies. The round arm makes it easy to build or attach all types of jigs and fixtures. The disc shaped slotted Platen (bottom illustration, lower left) is Standard form and is used for both shaping, pressing and punching out parts. The U shaped platen (center illustration, lower left) available only with the No. 2A press, is used for work on armatures and various electrical devices.

### SPECIFICATIONS — SHELDON ARBOR PRESSES

Number of Press	1	10	2	2A	33	3
Largest Dia. Press will take (inches)	7	9	11	11	18	15
Largest Dia. Mandrel (inches)	1 1/8	1 1/4	1 3/4	1 3/4	2 1/2	2 1/2
Height over Plate (inches)	4 1/2	5 3/4	8 3/4	8 3/4	13 1/2	13 1/2
Maximum Height will take (inches)	4 3/4	6 1/4	10 1/2	15	18	14 1/2
Height of Frame (inches)	8 7/8	11 1/2	18 1/2	23	31	26 1/4
Size of Ram, round (inches)	1	1 1/4	1 1/2	1 1/2	1 7/8	1 7/8
Movement of Ram (inches)	5	6 1/2	12	17 1/4	18 1/2	16 1/2
Leverage	25 to 1	30 to 1	35 to 1	35 to 1	48 to 1	48 to 1
Pressure (tons)	3/4	1	2	2	5	5
Dimensions of Base (inches)	4 x 9 3/4	4 x 11 1/2	6 x 17	7 x 17	11 x 20	8 x 20
Net Weight (pounds)	17	25	95	95	265	160
Shipping Weight (pounds)	20	30	115	115	300	175

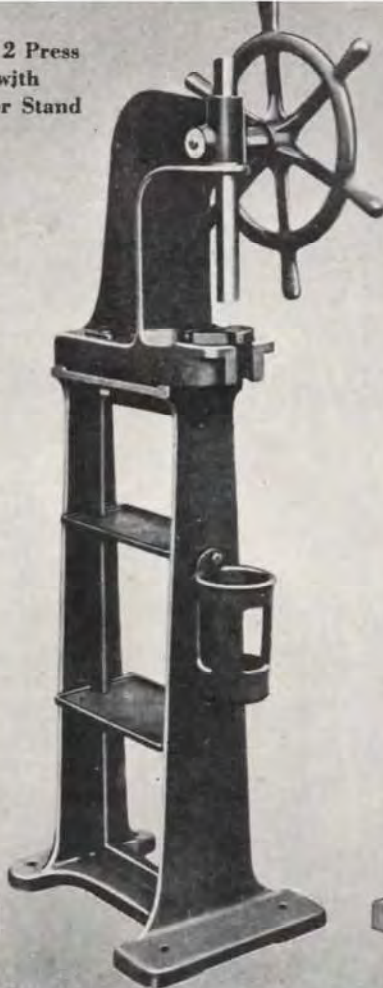
### FLOOR STANDS

For Press Number	No. 2	No. 3	No. 4
Height (inches)	36	35	30
Dimensions of Top (inches)	8 1/2 x 13 1/2	8 x 16 1/2	11 x 20
Dimensions of Base (inches)	19 x 19	18 x 20	21 x 26
Net Weight (pounds)	150	170	240
Shipping Weight (pounds)	175	200	280

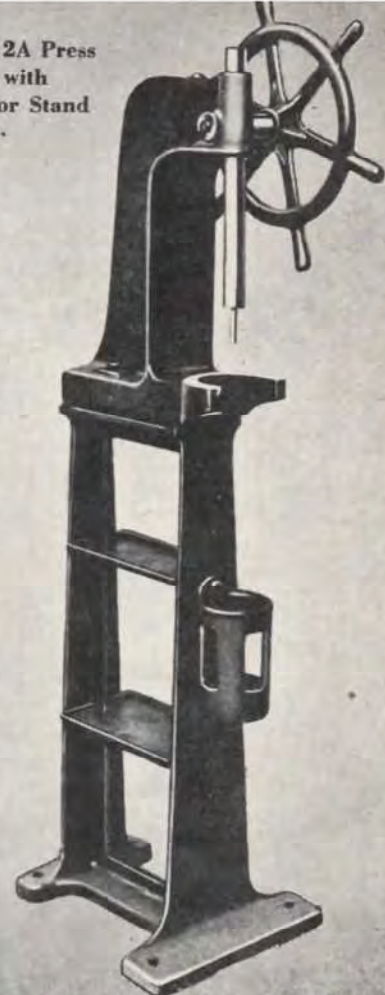




No. 2 Press  
with  
Floor Stand



No. 2A Press  
with  
Floor Stand



No. 2A Press



No. 2 Press



## SHELDON ARBOR PRESSES

### No. 3R Press

This Press is the same as our regular No. 3 Press, except that it has a Ratchet Lever. The ratchet device makes it possible to place lever in position most advantageous for the operator. Leverage on this Press is greater than on our regular No. 3 Press, consequently maximum Ram Pressure is greater. The handwheel makes it possible to advance ram to desired position in an instant.

### No. 4 Press

This is the largest Bench Type Press we make. It has a combination SIMPLE and COMPOUND LEVER mechanism — either one can be quickly engaged by means of a sliding pin. This mechanism permits the operator to apply great pressure with a minimum of effort. The hand wheel advances the ram to the work in an instant. All steel parts are made from Alloy Steel carefully Heat Treated and Ground to Size.

### No. 4 Press with Floor Stand

Relatively considering the weight of a No. 4 Press plus the force applied to it when in use, it stands to reason that a FLOOR STAND support of this model would greatly increase its usefulness.

### Simple and Compound Lever Mechanisms

The No. 3-R Ratchet Lever may be placed in a position most advantageous for the operator. It affords greater leverage than on the regular presses.

The No. 4 Simple and Compound Lever arrangement can be quickly changed from simple to compound leverage by means of a sliding pin. All parts are made exceptionally heavy and strong to withstand the severe duty imposed by production work.

## SPECIFICATIONS — SHELDON ARBOR PRESSES

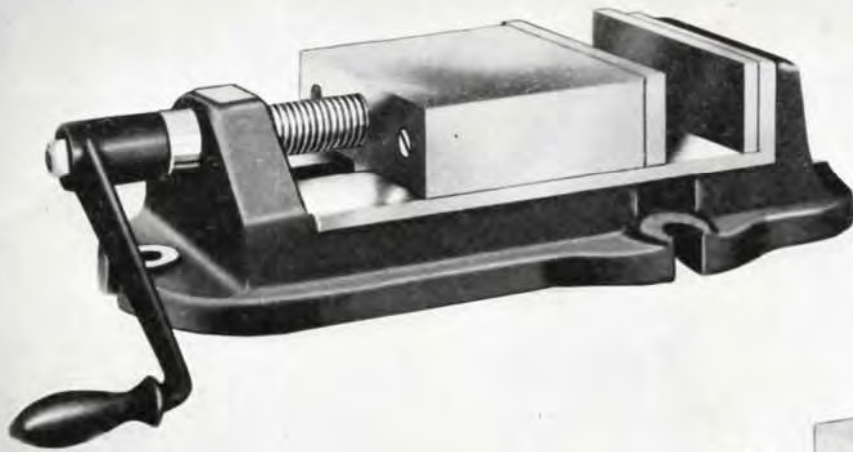
Number of Press	1	10	2	2A	33	3	3R	4
Largest Dia. Press will take (inches)	7	9	11	11	18	15	15	19½
Largest Dia. Mandrel (inches)	1½	1¾	1¾			2½	2½	3½
Height over Plate (inches)	4¾	5¾	9¾			13½	13½	18
Maximum Height will take (inches)	4¾	6¾	10½	15	18	14½	14½	19½
Height of Frame (inches)	9½	11½	18½	23	31	26¾	26¾	33
Size of Ram, round (inches)	1	1¾	1½	1½	1⅞	1⅞	1⅞	2½
Movement of Ram (inches)	5	6½	12	17¾	18½	16½	16½	21
Leverage	25 to 1	30 to 1	35 to 1	35 to 1	48 to 1	48 to 1	72 to 1	120 to 1
Pressure (tons)	¾	1	2	2	5	5	7½	10
Dimensions of base (inches)	4x9¾	4x11½	6x17	7x17		8x20	8x20	11x21
Net Weight (pounds)	17	25	95	95	265	160	200	400
Shipping Weight (pounds)	20	30	115	115	300	175	220	435

## FLOOR STANDS

For Press Number	No. 2	No. 3	No. 4
Height (inches)	36	35	30
Dimensions of Top (inches)	6½x13½	8x16½	11x20
Dimensions of base (inches)	19x19	18x20	21x26
Net Weight (pounds)	150	170	240
Shipping Weight (pounds)	175	200	280

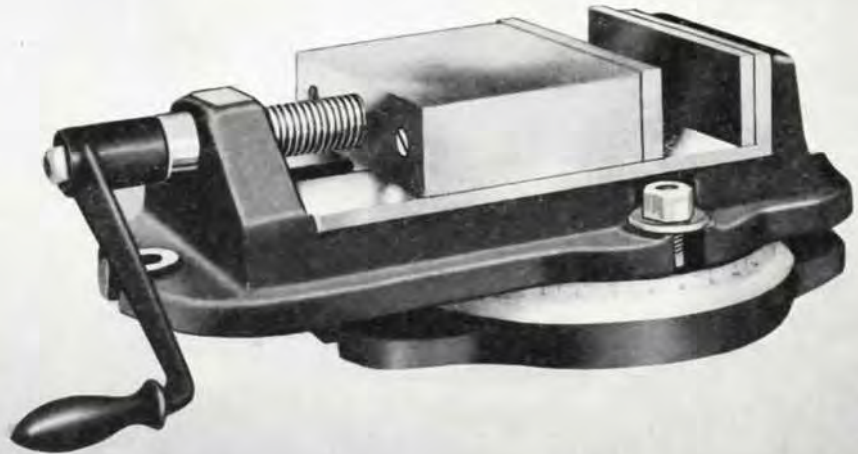






To the left. Plain Vise. Made stationary by bolting to bench. This vise is, as you can see, the detachable vise unit of the swivel vise.

To the right. Swivel vise. Strong durable base graduated in degrees on circumference to set vise at any angle to the table.



## SHELDON MILLING MACHINE VISES

SHELDON Milling Vises are heavy and rugged, having more than average work capacity than ordinary vises of this type. The vise bodies are made of semi-steel with the metal so distributed to give the very maximum of strength where needed.

Both the plain and swivel vises have removable steel jaws together with removable steel plates. Each vise is furnished with crank handle.

### PLAIN VISE

The plain vises are of improved flanged construction with cross slots and side ears so that they can be bolted either lengthwise or across the work table. Vise has removable

steel jaws and is furnished with tightening crank handle. The plain vises are made of semi-steel, substantially heavy and sturdy to withstand the work expected of them.

### SWIVEL VISE

These are plain vises with the addition of circular bases, graduated in degrees on the circumference which permit them to be set at any angle to the table. They are clamped to the stationary base by two "T" slot bolts, and can be quickly removed from base and used as plain vise when desired. These vises are made of semi-steel with replaceable steel jaws. They are unusually heavy and durable, capable of withstanding tremendous force.

### SCREW IS LARGE DIAMETER WITH ACCURATELY CUT ACME THREADS

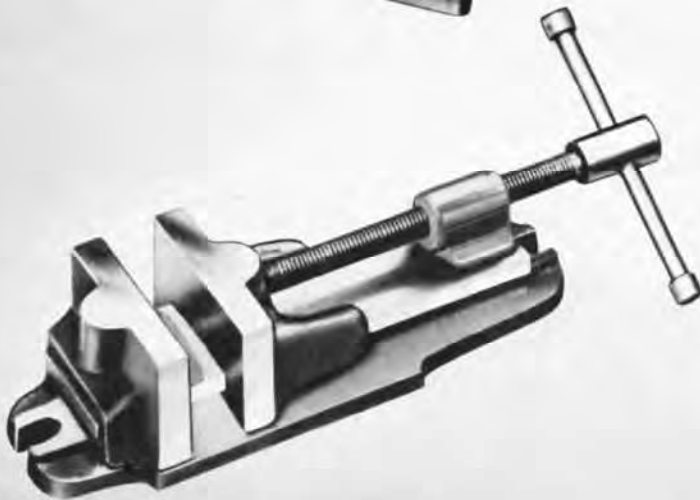
The vise screws are exceptionally large and are made of special alloy steel with accurately cut acme threads. Notice the unusually rugged screw blocks and perfect recess for screw fittings. This provides permanent alignment and insures against unwarranted wear.

<b>Plain Vise Number</b>		<b>3P</b>	<b>4P</b>	<b>6P</b>	<b>8P</b>
Width of Jaws	inches	3½	4½	6½	8½
Depth of Jaws	inches	1⅜	1⅝	2	2½
Jaws open	inches	2½	3½	4½	7
Weight	provides	15	30	70	160
<b>Swivel Vise Number</b>		<b>3S</b>	<b>4S</b>	<b>6S</b>	<b>8S</b>
Width of Jaws	inches	3½	4½	6½	8½
Depth of Jaws	inches	1⅜	1⅝	2	2½
Jaws open	inches	2½	3½	4½	7
Weight	provides	25	45	90	225





To the left, SHELDON Shaper Vise. Each of the four corners of the large base are drilled to specification for attaching to machine bed. Base is graduated in degrees on circumference for setting at any angle. Lower left, SHELDON Style "G" Drill Press Vise. Lower right, SHELDON Style "D" Drill Press Vise.



## SHELDON SHAPER and DRILL PRESS VISES

SHELDON Shaper Vises are made of semi-steel, are unusually heavy and have greater capacity than ordinary vises of this type. Although designed primarily for use on Shapers, they are equally well adapted for Planers and other machines where the heaviest service is required. The vise body is a cored semi-steel casting with the metal properly distributed to give maximum strength with the least possible weight. Screws are of special alloy steel with long life Acme threads. Bases are graduated in degrees so the vise can be quickly set at any angle. As all shaper and planer tables have different widths and T-slots, it is necessary that these dimensions be given when ordering, otherwise the base will be furnished undrilled.

### SHELDON JAW PLATES ARE RENEWABLE

The sliding jaw is carefully fitted to ways on the vise body. Jaws are fitted with renewable steel plates. Thrust is taken on a hardened and ground steel washer in the stationary jaw. By this method the movable jaw is pulled to the work, relieving the vise body of the clamping strain.

### SHELDON STYLE "G" DRILL PRESS VISES

SHELDON Style "G" Drill Press Vises are made in two sizes with jaws 4 and 5 inches wide, to provide accurate, rugged vises at a low price. The jaw ends are milled square with base so these vises can be placed on either side when desired. Large diameter, accurately cut screws are used.

### SHELDON STYLE "D" DRILL PRESS VISES

The SHELDON Style "D" Press Vise has been designed to meet the demand for a light weight but strong vise for general purpose work. The vise jaws are box section semi-steel castings faced with steel plates, the plate on the movable jaw being furnished with V-grooves for holding round stock either in a vertical or horizontal position. Screws are special alloy steel with long life Acme threads.

### SHELDON SHAPER VISES

Shaper Vise Number		1	2
Size of Jaw	inches	12x2 1/2	14x3
Vise Openings	inches	12 1/2	13
Weight	provides	230	285

### SHELDON STYLE "G" DRILL PRESS VISES

Number		G4	G5
Width of Jaws	inches	4	5
Depth of Jaws over Plate	inches	1 1/2	2
Full Depth of Jaws	inches	2 1/2	3
Jaws Open	inches	5	6
Weight	pounds	15	25

### SHELDON STYLE "D" DRILL PRESS VISES

Number		D4	D6	D9
Width of Jaws	inches	4 1/2	6 1/2	9
Depth of Jaws over Guide Bars	inches	1 5/8	1 3/4	2 1/2
Full Depth of Jaws	inches	3	3 1/2	4 1/2
Jaws open	inches	4	6	9
Weight	pounds	15	35	70



# INDEX

	Page		Page
Accessories for Sheldon Lathes.....	33-35		
Adjustable Thread Cutting Stop.....	34		
Anti-Friction Bearings, Lathes with.....	14, 17		
Anti-Friction Bearing Live Center.....	32		
Anti-Friction Overhead Drive Attachment.....	14, 17		
Apron Controls.....	8		
Aprons, Double Wall.....	8		
Aprons, Plain.....	8		
Arbor Presses.....	42-45		
Arbor Presses with Ratchet Levers.....	45		
Arbor Press Ram Aligners.....	42		
Arbor Press Specifications.....	42-45		
Arbor Press with Simple and Compound Levers.....	45		
Armature Presses.....	43		
Attachments for Sheldon Lathes.....	31, 32		
Backgearing of Headstocks.....	5		
Ball Bearing Spindles.....	5		
Basic Parts of the Sheldon Lathe.....	5-9		
Bench Lathes.....	28, 29		
Bent Tail Lathe Dogs.....	34		
Boring Tools.....	35		
Boring Tool Holders.....	35		
Bowl Type Headstock.....	5		
Boxes, Gear.....	9		
Bronze Bearings, Lathes with.....	10-13 and 15-16		
Bronze Spindle Bearings.....	5		
Capacitor-Induction Motors.....	36		
"Care and Operation of a Sheldon Lathe".....	31		
Carriages.....	7		
Carriage Feeds.....	8		
Carriage Stops.....	34		
Center Rest Chucks.....	33		
Center, Tailstock, Ball Bearing.....	33		
Centers for Lathes.....	33		
Change Gears, Pick Off (Hob-cut).....	9		
Change Gears ("Quick" and "Semi-quick").....	9		
Chip Pans.....	34		
Chuck Plates.....	33		
Clamp Dog (Drop Forged Steel).....	34		
3/8" Collet Capacity, Lathes with.....	10-13		
1" Collet Capacity, Lathes with.....	14-16		
Collet Racks.....	32		
Collets (Round, Square and Hexagon).....	7		
Compound Rest.....	7		
Compound Lever Mechanism for Arbor Presses.....	45		
Contents.....	3		
Countershaft Drives, V-Belt and Flat Belt.....	10, 31		
Countershaft Lathes.....	11, 12		
Cross Bridge or Saddle.....	7		
Cross Feeds (Hand and Power).....	7, 8		
Crotch Center.....	33		
Divided Gear Guard.....	5		
Double Friction Countershaft.....	10, 31		
Double Half Nuts.....	8		
Double Tool Post Attachments.....	32		
Double Wall Apron.....	8		
Drill Pad.....	33		
Drill Press Vises.....	47		
Drop Forged Steel Clamp Dogs.....	34		
Electrical Equipment.....	35		
E-Type Underneath Motor Drive, Lathes with.....	18, 20, 22, 25, 28, 29		
Face Plates.....	33		
Feed, Carriage.....	8		
Feed, Clutch.....	8		
Feed Cross, Hand and Power.....	7, 8		
Feed, Longitudinal.....	8		
Feed, Spline.....	8		
Flat Platens, Arbor Press.....	44		
Flat Way and V-Way Beds.....	6		
Floor Lathes.....	10, 11, 13		
Floor Space Requirements for Sheldon Lathes.....	37		
Follower Rest with Two Jaws.....	34		
Four Jaw Independent Chucks.....	33		
Four Way Turret Tool Posts.....	32		
Gear Boxes.....	9		
Gears, Quick Change.....	9		
Hand Lever Bed Turret.....	32		
Hand Lever Draw-in Collet Chuck Attachment.....	32		
Hand Lever Tailstock.....	32		
Hand Rest for Wood Turning.....	34		
Hand Wheel Draw-in Collet Chuck Attachment.....	32		
Headstock.....	5		
Headstock, Bowl Type.....	5		
High Speed Steel Cutter Bits.....	35		
Hinged Type Steady Rests.....	34		
How to Order a Lathe.....	41		
Induction Motors.....	36		
Instant Speed Changes.....	9		
Knurling Patterns.....	35		
Knurling Pitch.....	35		
Knurling Tool Holders.....	35		
Knurling Tool Holders with Revolving Head.....	35		
Knurls, Hob-cut.....	35		
Large Face Plate.....	33		
Lathe Centers.....	33		
Lathe Check Sheet.....	40		
Lathe Dogs.....	34		
Lathe, Floor Space Requirements.....	37		
Lathe Lamps.....	36		
Lathe Safety Features.....	5, 19		
Lathe Specifications.....	38, 39		
Lathes with Anti-Friction Bearings.....	5, 14, 17, 22, 23, 25, 28		
Lathes with Bench Legs.....	10-17		
Lathes with 3/8" Collet Capacity.....	10-13 and 19-21		
Lathes with 1" Collet Capacity.....	14-17 and 22-26		
Lathes with Floor Legs.....	10-17		
Lathes with Overhead Motor Drive.....	11, 13, 14, 16, 17		
Lathes with Production Attachment.....	27		
Lathes with Underneath Motor Drive.....	19-27		
Lathes, Bench (Wood and Metal).....	28, 29		
Lathes, Floor.....	10, 11, 13		
Lathe Tools.....	35		
Lead Screw Bracket.....	6		
Lead Screws.....	6		
Left Hand Tool Holders.....	35		
Live Center, Anti-Friction Bearing.....	33		
Metal Bench for E-Type Underdrive Lathe.....	29		
"Metal Worker" Lathe Apron.....	8		
Micrometer Carriage Stops.....	34		
Micrometer Collars on Cross Feeds.....	7		
Milling Cutters and Arbors.....	32		
Milling and Keyway Attachments.....	32		
Milling Machine Vises.....	46		
Motor Driven Lathes.....	11, 13, 14, 16, 17		
Motors for Sheldon Lathes.....	36		
Oil and Chip Pans.....	34		
Oil Pumps.....	36		
Overhead Motor Drives.....	10, 31		
Pad, Drill.....	33		
Phosphor Bronze Headstock Bearings.....	5		
Plain Carriage Stop.....	34		
Plain Taper Attachment.....	30		
Plain Vise.....	45		
Plain or Worm Feed Apron.....	8		
Platens (Sizes and Shapes).....	44		
Precision Ball or Roller Spindle Bearings.....	5		
Portable Oil Pumps.....	26		
Quick Change Gears.....	9		
Rests, Compound.....	7		
Rests, Steady.....	35		
Right Hand Tool Holders.....	5		
Roller Bearing Spindles.....	5		
Round Platens.....	44		
Screw Thread Range.....	9		
Standard Equipment (See also underdrive lathes).....	31		
Standard Equipment (Semi-quick Series).....	31		
Standard Equipment (Quick Change Series).....	31		
Semi-quick Change Gears.....	9		
Shaper Vises.....	47		
Sheldon Plant.....	4		
Sheldon Precision Lathes.....	10-17 and 19-27		
Spindles, Lathe.....	5		
Spindle Bearings.....	5		
Spindle Chucks.....	5		
Special Sheldon Lathes.....	27		
Specifications for Sheldon Lathes.....	38, 39		
Steady Rests.....	34		
Straight Tool Holders.....	35		
Swivel Vises.....	45		
Tailstocks.....	6		
Tailstock Graduations for Taper Turning.....	6		
Tailstock Spindles.....	6		
Taper Attachments.....	30		
Telescopic Taper Attachments.....	30		
Thread Chasing Dial.....	34		
Thread Cutting Engagement.....	8		
Thread Cutting Stop.....	8		
Threading Tools.....	35		
Threading Tool Holders.....	35		
Three-bar Boring Tools.....	35		
Three-jaw Drill Chuck.....	33		
Three-jaw Universal or Scroll Chuck.....	33		
Three Phase Motor.....	36		
Tool Posts.....	7		
Tool Post Grinders.....	30		
Unercating and Setting Up a Sheldon Lathe.....	41		
Universal (Three-jaw) or Scroll Chuck.....	33		
Underground Cutter Bits.....	35		
Vises—Milling Machine and Shaper.....	46, 47		
V-Ways, Hand Scraped.....	6		
Ways, Hand Scraped.....	6		
Wooden Bench Units for E-Type Underdrive Lathes.....	28		
Worm Feed Apron.....	8		
10" Lathes.....	10, 11, 19, 20		
11" Lathes.....	12-14 and 21-23		
12" Lathes.....	15-17, 24-26		