

Derbyshire

PRECISION

LATHES

MICROMILLS

DRILL PRESSES

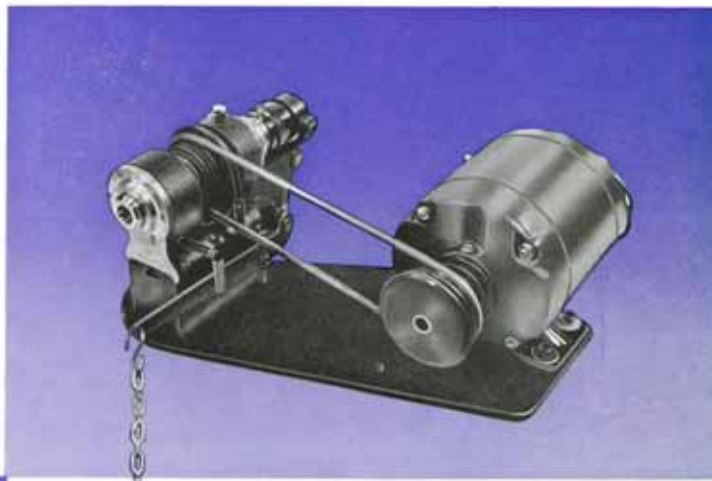
L **for INSTRUMENT and Watchmaking**

DERBYSHIRE

Magnus POLISHING UNITS

**FOR SMALL BURRING AND
POLISHING OPERATIONS**

- ★ *Saves bench space — only 8" x 12"*
- ★ *Spindle speeds to 18,000 RPM.*
- ★ *Integral unit — can be interchanged easily between departments.*
- ★ *Takes Standard MAGNUS-ELECT Collets.*



Shown above: POLISHING UNIT #2190, consisting of Base, GE 1/12 HP Motor, Motor Cone Pulley, Belt, Pad, and Ball-bearing Spring-bind Headstock with Brake Belt which permits instantaneous starting and stopping of Spindle with corresponding opening and closing of Collet.



At left: POLISHING UNIT #2191, consisting of Base, GE 1/12 HP Motor, Motor Cone Pulley, Belt, Pad, and Ball-bearing Headstock with draw-in Spindle.

For full details write:

F. W. DERBYSHIRE *Inc.*
WALTHAM • MASSACHUSETTS

Drilling a $\frac{60}{100,000}$ -inch diameter hole (half that of human hair) on a standard

DERBYSHIRE "Elect" LATHE



Smallest hole ever known to have been drilled in metal in this country

This remarkable piece of work reflects the high technical ability of the operator in the U.S. Naval Ordnance Laboratory, White Oak, Md., where it was performed as well as the outstanding precision of the Derbyshire "Elect" Lathe used in the drilling operation. The hole was drilled in a platinum part for the hydraulic system of a new Navy weapon. Only through the use of an electric ohmmeter could the operator tell when contact had been made between the drill and the platinum. The drill was attached to a combination tailstock and centered by means of a microscope. To the best of our knowledge, the microscopic opening, half the size of the smallest hole drilled commercially, is the smallest ever to have been drilled in metal in this country.

Full details on Derbyshire Precision Lathes are available on request.



Human hair shown on left, hole drilled on right. Both are magnified 108 times.



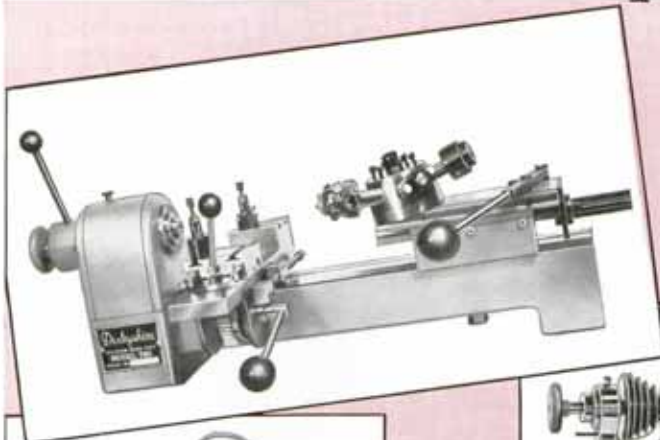
HERE'S THE LATHE

Model No. 750, Specifications (condensed)
 Overall Length 24"
 Distance between centers 12"
 Length of bed 22"
 Swing over bed 5.925"
 Motor 1/4 HP Variable Speed
 Spindle Speed (Max.) 12,000 RPM
 Semi-Automatic Turret with $\frac{1}{2}$ " holes
 Maximum Collet Capacity—315 (5/16")

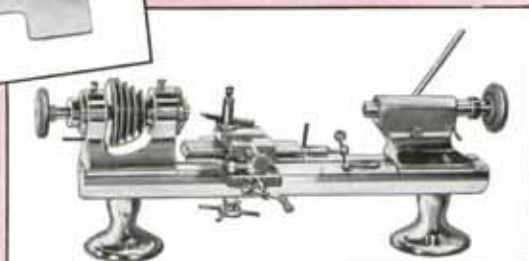
F. W. DERBYSHIRE
Incorporated

265 BEAR HILL RD., WALTHAM, MASS.

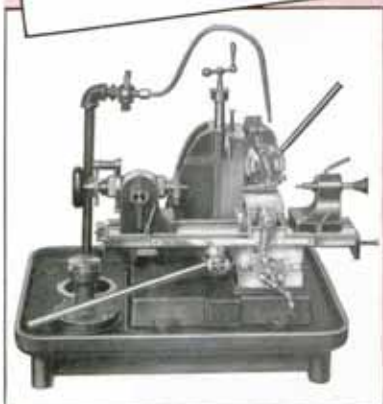
Derbyshire *fine precision equipment*



MODEL No. 750
BED 22"
CENTER HEIGHT - 7.50 CM
COLLET CAPACITY - .315"



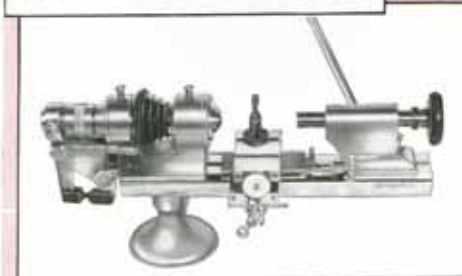
ELECT LATHE - 18" BED
CENTER HEIGHT - 2.35" (6 CM)
CHUCK CAPACITY - .004" to .315"



MICROMILL
2 TABLE SURFACES:
7 $\frac{1}{8}$ " x 2 $\frac{1}{4}$ "
12" x 2 $\frac{1}{8}$ "
TAKES
MAGNUS
COLLETS



WEBSTER WHITCOMB
BED 12"
CENTER HEIGHT - 5 CM
COLLET CAPACITY - .1969"



MAGNUS LATHE - 12" BED
CENTER HEIGHT - 5 CM
COLLET CAPACITY - .315"

F. W. DERBYSHIRE, INC.

157 HIGH ST.

WALTHAM

MASS.

Write for full details

DERBYSHIRE WEBSTER WHITCOMB



Universal Face Plate— $3\frac{7}{8}$ " dia.
Pt. No. 1060



Three-Jaw Chuck— $2\frac{1}{2}$ " dia.
with reversible jaws
Pt. No. 1040



Snyder-Bezel Chuck— $2\frac{1}{2}$ " dia.
Pt. No. 1030



Drill Chucks with small or large nut
Pt. No. 1080



Saw Arbor Chuck—4.4 m/m
Pt. No. 1170



Pivot Polisher with Laps
Pt. No. 2158



Sawed Chuck Blank
Pt. No. 1111—1"
1121— $1\frac{1}{4}$ "
1380— $2\frac{1}{2}$ "

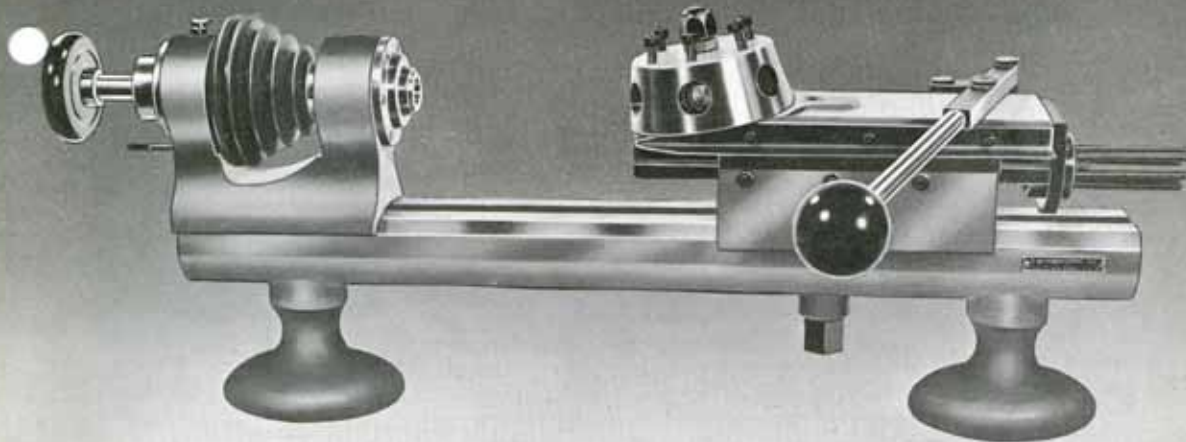


Plain Countershaft—Speed Pulley
Pt. No. 1000 — Pt. No. 1141

Derbyshire lathes have always been quality lathes. Built by fine craftsmen, they are time-tested and justly famed for being superior. This is the reason that through the years those who have worked on them, those who have seen them, those who have been told of their extreme accuracy, dependability and fine workmanship say —

"I want a lathe by Derbyshire"

F. W. DERBYSHIRE, INC., WALTHAM 54, MASSACHUSETTS, U. S. A.



DERBYSHIRE

Elect

INSTRUMENT LATHE

CATALOG NUMBER 6

Derbyshire Micromills

*Specifications and
List Prices*



F. W. DERBYSHIRE, INC.
WALTHAM 54, MASSACHUSETTS, U. S. A.

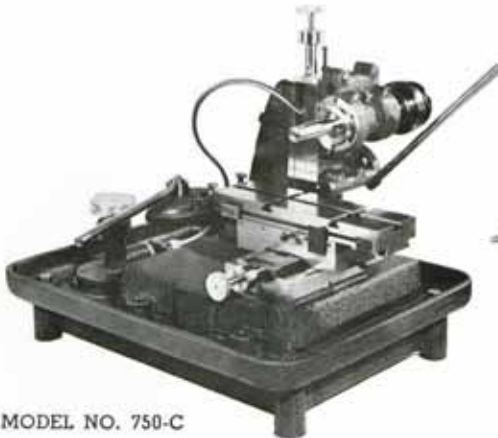
Catalog No. 10

PARTS

| | |
|---|----------|
| Oil Pan and Coolant Pump | \$ 84.00 |
| Ball-bearing Draw-in Spindle | 10.90 |
| Vertical or Horizontal Headstock c/w spindle, bearings and draw-in spindle and column slides | 282.00 |



Model No. 750-12R
with Motor Drive



MODEL NO. 750-C

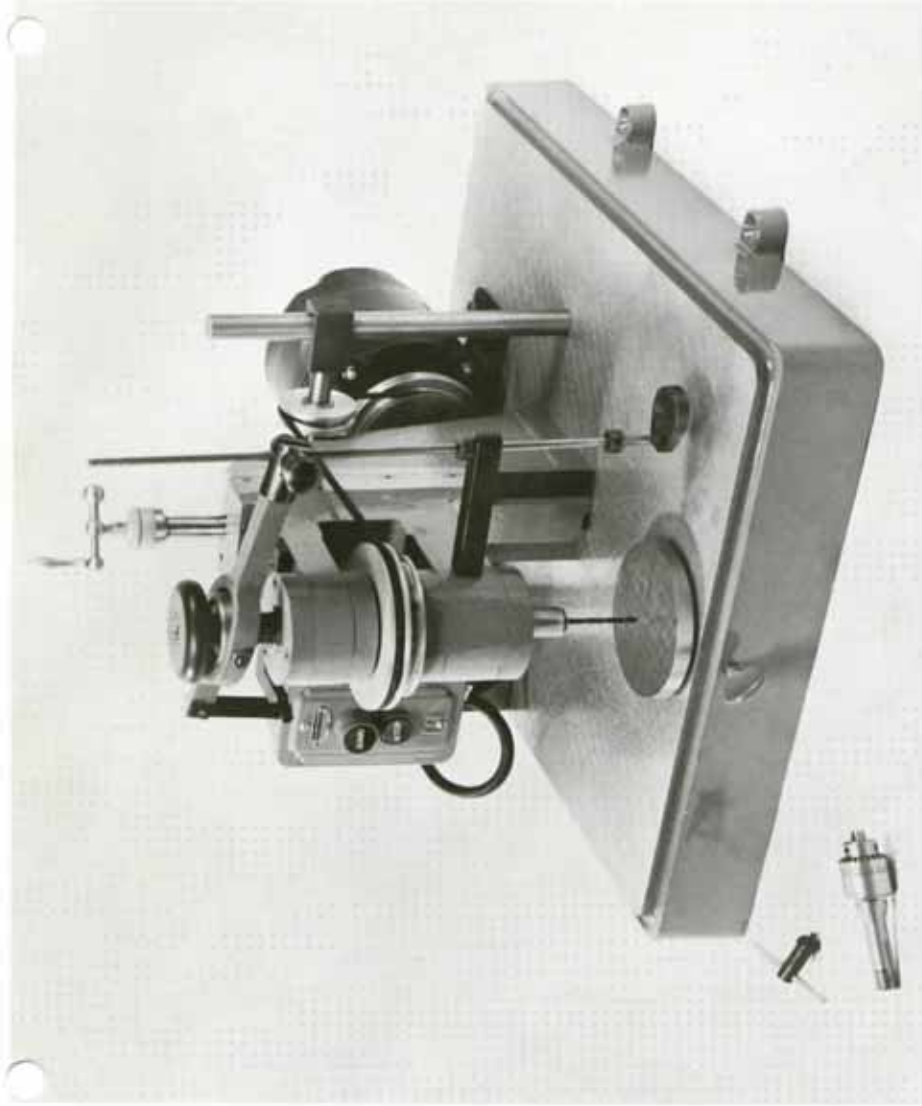


Model No. 750-CV

Machines are equipped with ball handles on the screw-feed Vertical Slide, screw-feed Table Slide and screw-feed Cross Slide.

Machines may be used either as milling machines or as grinders.

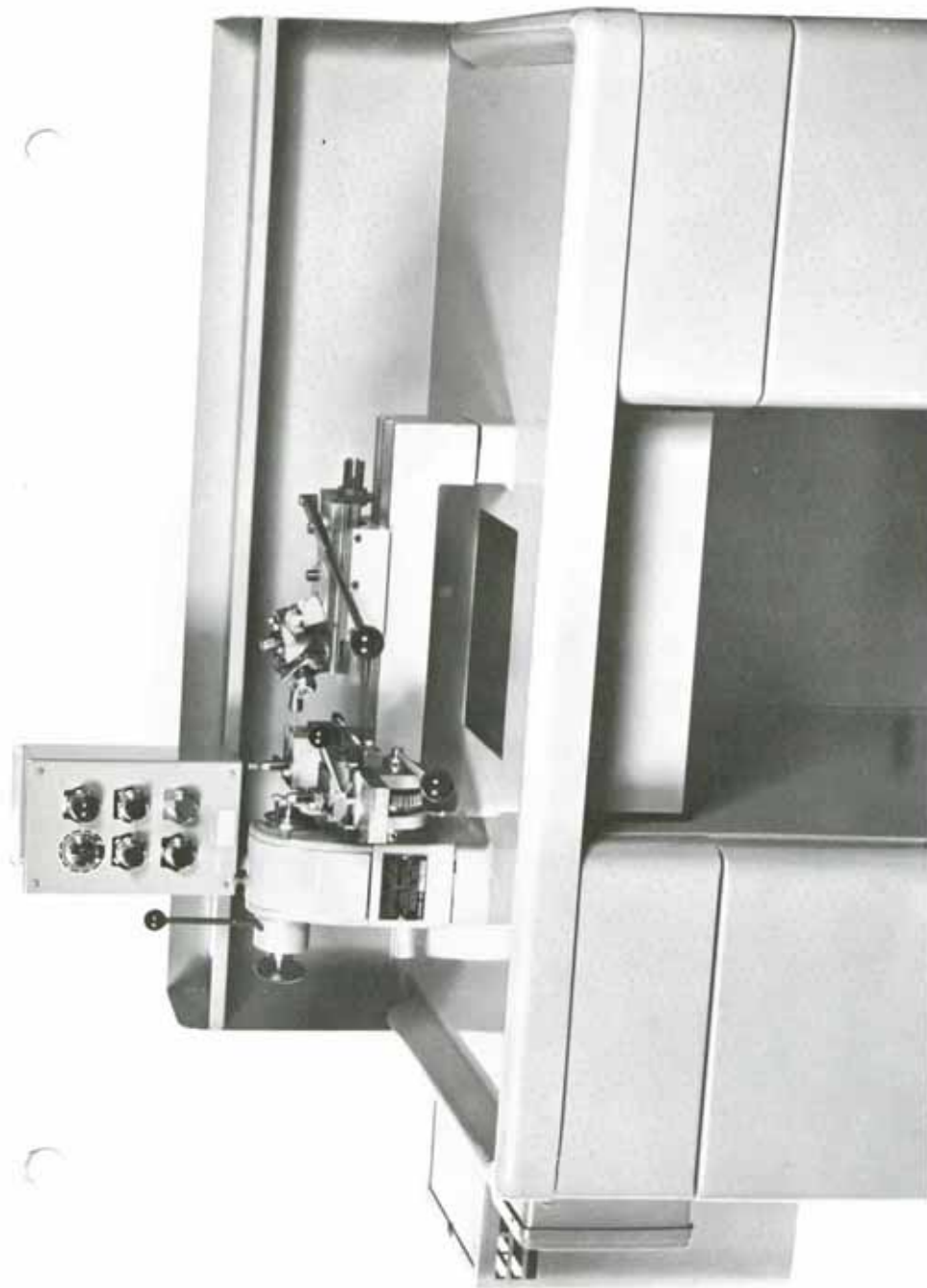
For milling work we recommend a 1725 RPM motor. If machine is used as a grinder, we recommend a 3450 RPM motor. Please specify voltage and phase in motor.



DERBYSHIRE MICRO DRILL PRESS

Has a throat depth of $4\frac{1}{2}$ " and the spindle which slides in sleeves has a travel of $1\frac{1}{4}$ ". The column has a micrometer screw and can be adjusted 2 inches in thousandths of an inch. This MICRO DRILL Press is powered with a $1/12$ HP, 60 cycle, 1 phase Motor, 1725 RPM or 3500 RPM with a two-step pulley. The Headstock takes standard MAGNUS-ELECT Collets in sizes from .004 to .315 inch. A complete set of collets can be supplied in wire gauge sizes from 1 to 80. A table, 3" diameter is included and is adjustable.

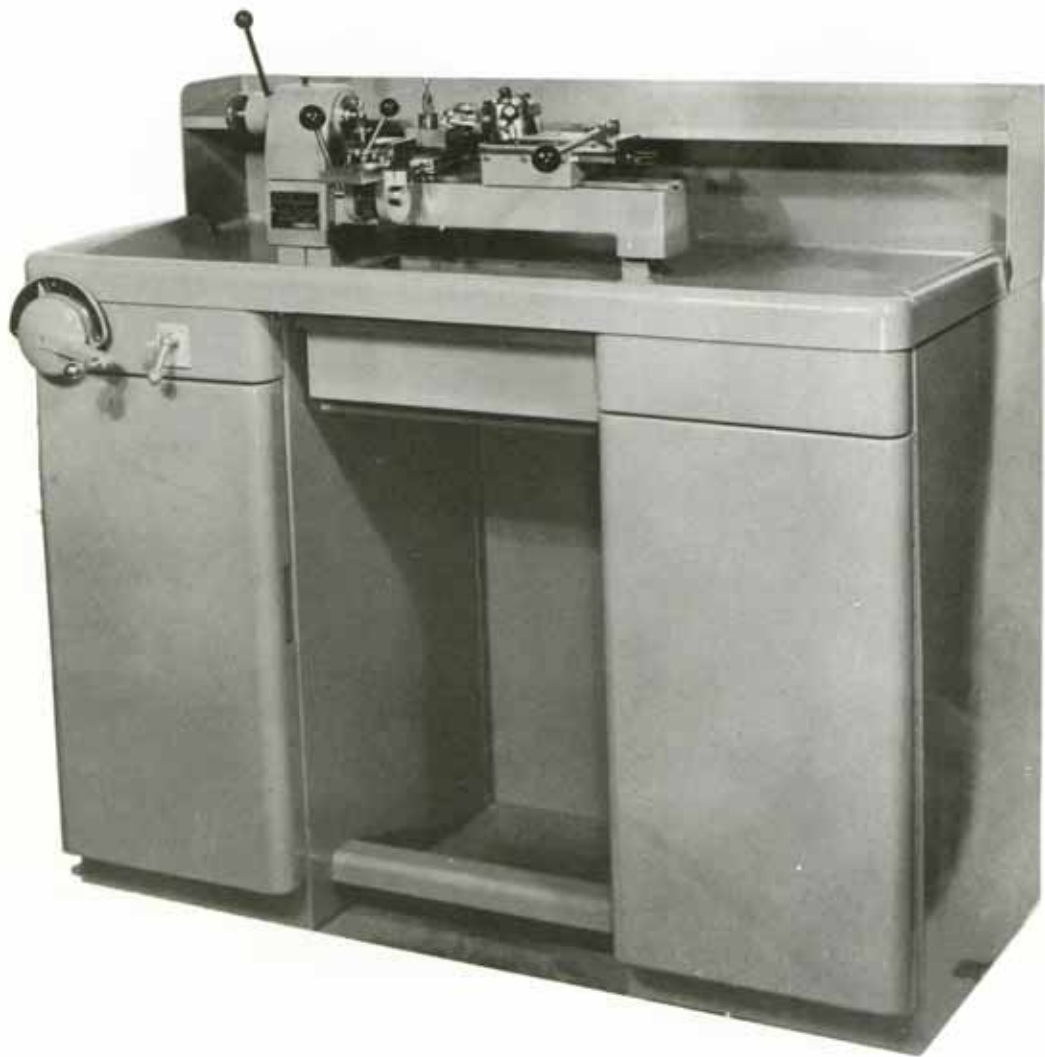
F. W. Derbyshire Inc.
Waltham 54, Massachusetts



MODEL 750 Lathe, Steel Cabinet and New Design Electronic Motor and Drive

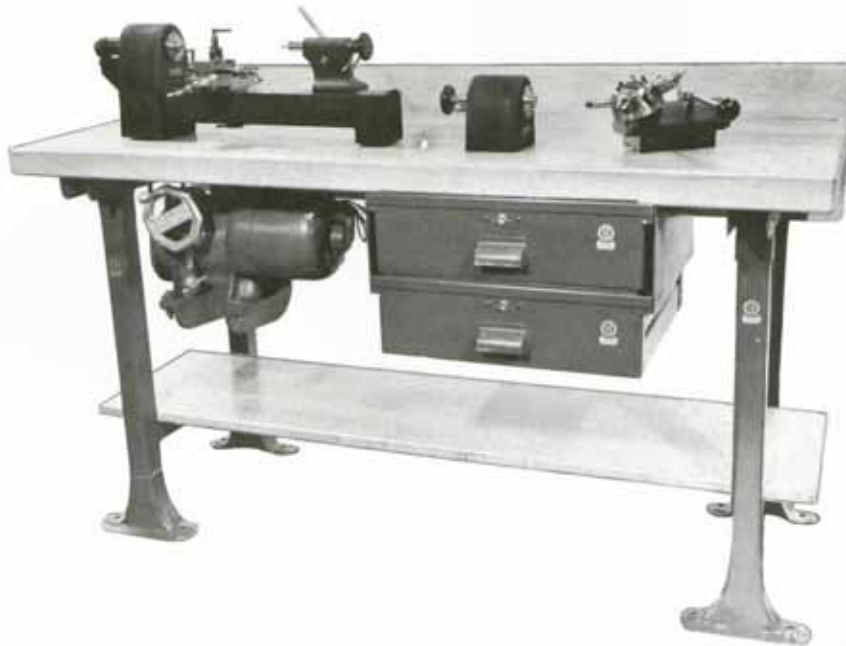
With our MODEL 750 Lathe is combined the new design Reliance Electronic Motor and Drive. Simply by pushing the starter you can have speeds from 300-3500 RPM using a 1:1 Pulley ratio or from 600-7000 RPM with a 2:1 Pulley jump. The drive can be jogged and reversed by turning a switch on the new design control station. This unit has dynamic braking and will not slow down with an increased load because it has IR Drop Compensation which keeps this motor at a constant speed. Shown with MODEL 750 Lathe, Double Compound Slide Rest, Screw Tailstock and Steel Cabinet. A two-speed Motor and Drive is also available.

F. W. Derbyshire Inc.
Waltham 54, Massachusetts

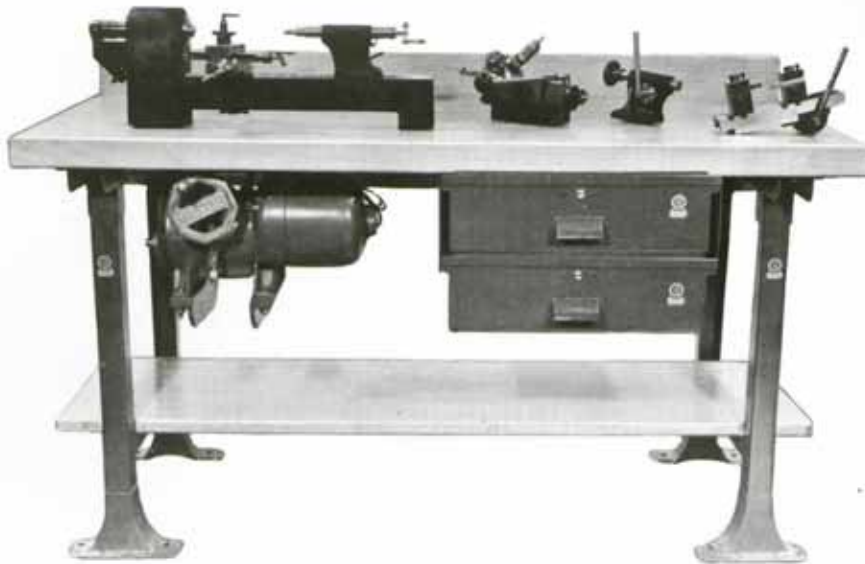


MODEL NO. 750 Lathe Unit, complete with Six-position Turret and Double Compound Rack and Pinion Slide, mounted on steel cabinet which encloses a Variable Speed Unit (4275-400 RPM) and Oil Coolant System.

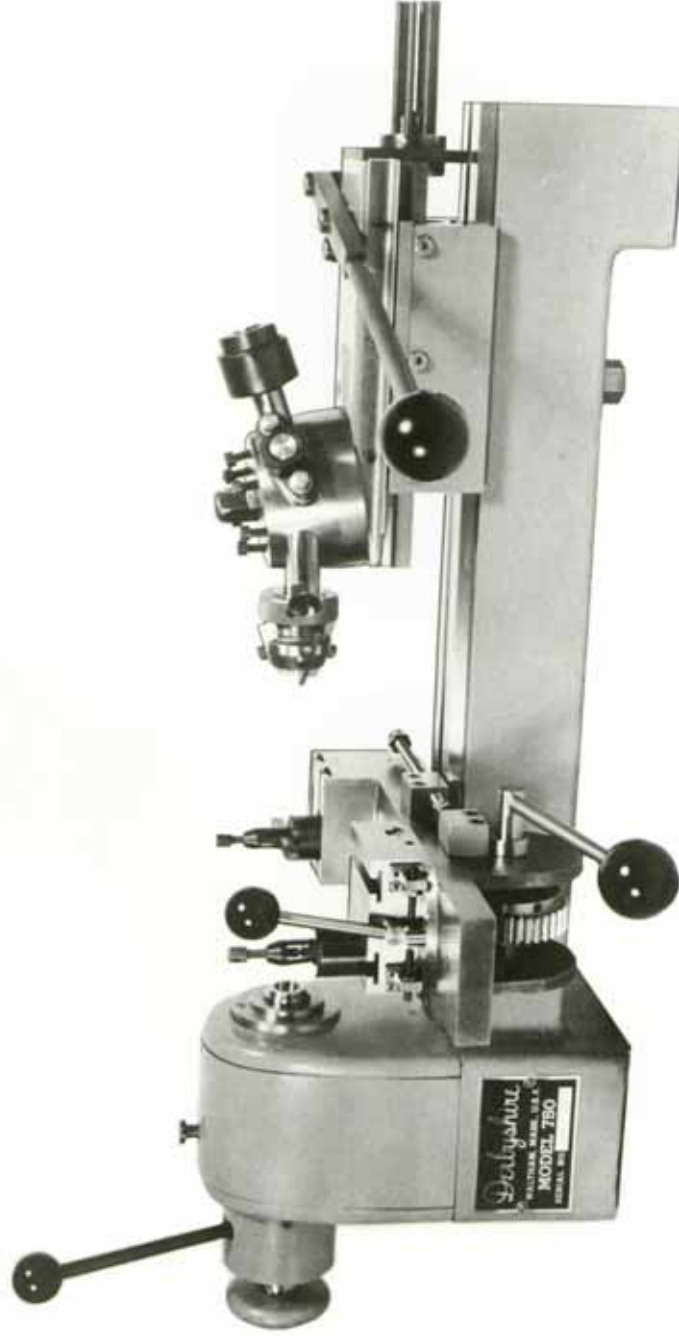
F. W. Derbyshire Inc.
Waltham 54, Massachusetts



MODEL NO. 750 PRECISION LATHE.

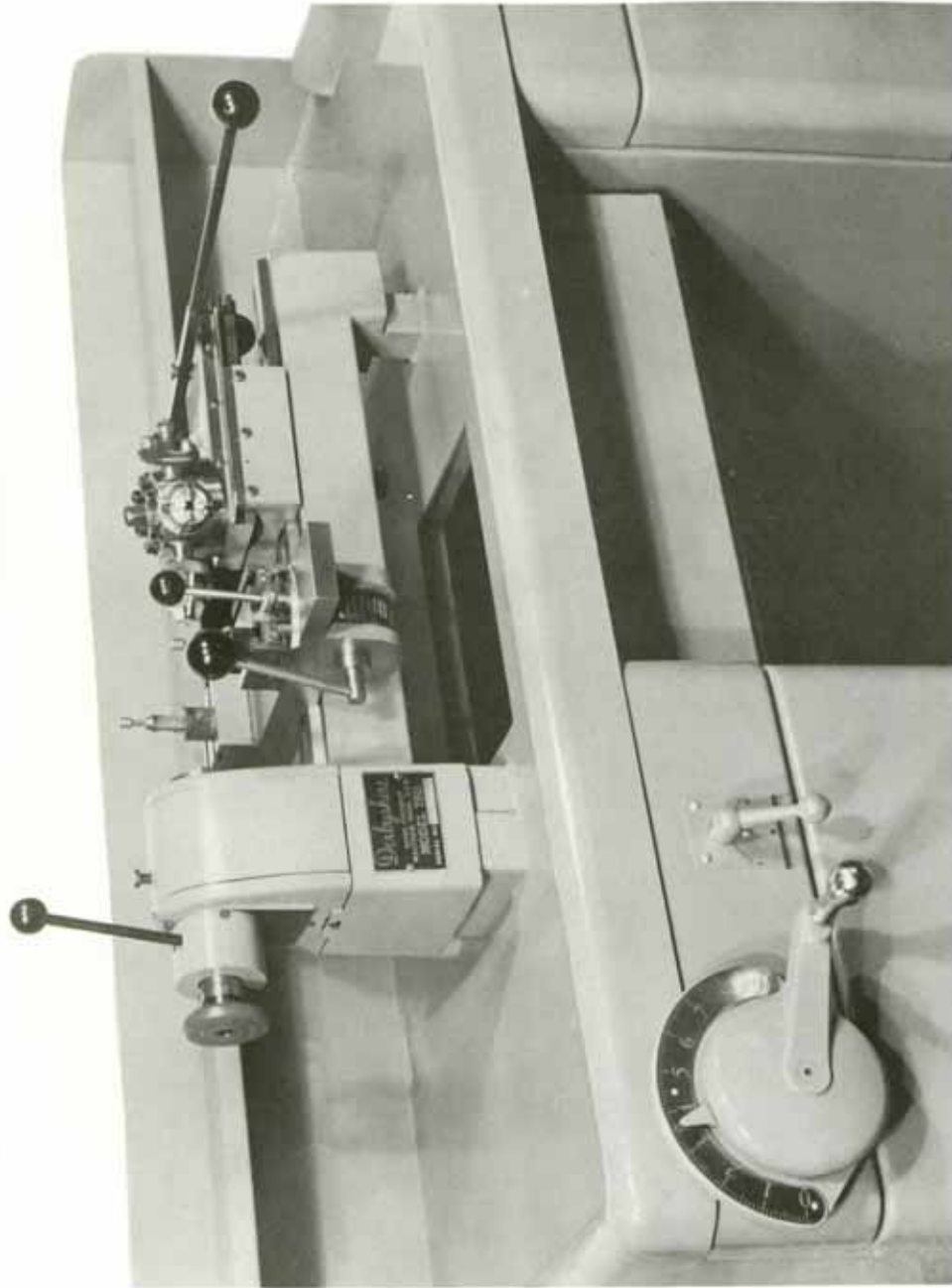


F. W. Derbyshire Inc.
Waltham 54, Massachusetts



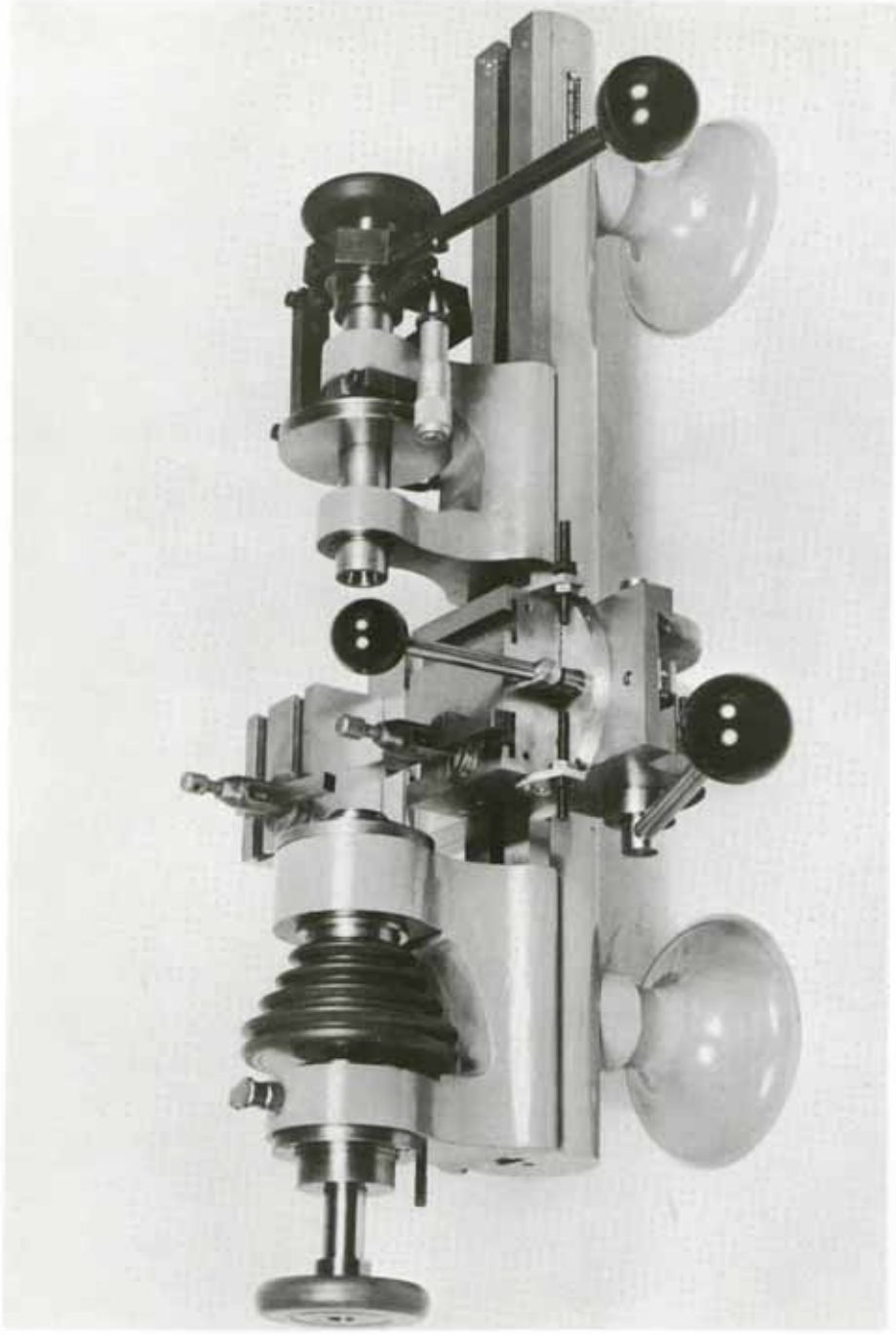
MODEL 750 Lathe, 22" bed, Ball Bearing Headstock with
Lever Collet Closer, Pt. # 3804, with Double Compound
Slide Rest, Pt. # 3652 and Six-position, self-indexing and
semi-automatic Turret, Pt. # 3610.

F. W. Derbyshire Inc.
Waltham 54, Massachusetts



MODEL NO. 750 Lathe Unit, complete with Six-position Turret and Double Compound Rack and Pinion Slide, mounted on steel cabinet which encloses a Variable Speed Drive Unit (4275-400 RPM) and Oil Coolant System.

F. W. Derbyshire Inc.
Waltham 54, Massachusetts



ELECT Lathe with REVOLVING TAILSTOCK and Double compound slide rest. This REVOLVING TAILSTOCK can be used with DERBYSHIRE - WEBSTER - WHITCOMB, MAGNUS, MODEL 750, and MODEL A Lathes.

F. W. Derbyshire Inc.
Waltham 54, Massachusetts



ELECT LATHE, 18" BED, TWO PEDESTALS, BALL BEARING HEADSTOCK, SIX POSITION TURRET

F. W. Derbyshire Inc.
Waltham 54, Massachusetts



Lathe with Wheel Cutter and Milling
Tool also Plain Tailstock.



Lathe with Six-position Turret with
 $\frac{1}{8}$ " holes to take standard hand
screw machine tools. Travel of tur-
ret $1\frac{1}{8}$ ".



ELECT LATHES: 18" Bed, Cone Bearing Headstock with spindle speeds
to 6500 RPM #3006; Three-slided Slide Rest #3044; Combination
Tailstock, rack and pinion feed, to take same chucks as headstock
#3024. Nickel finish.

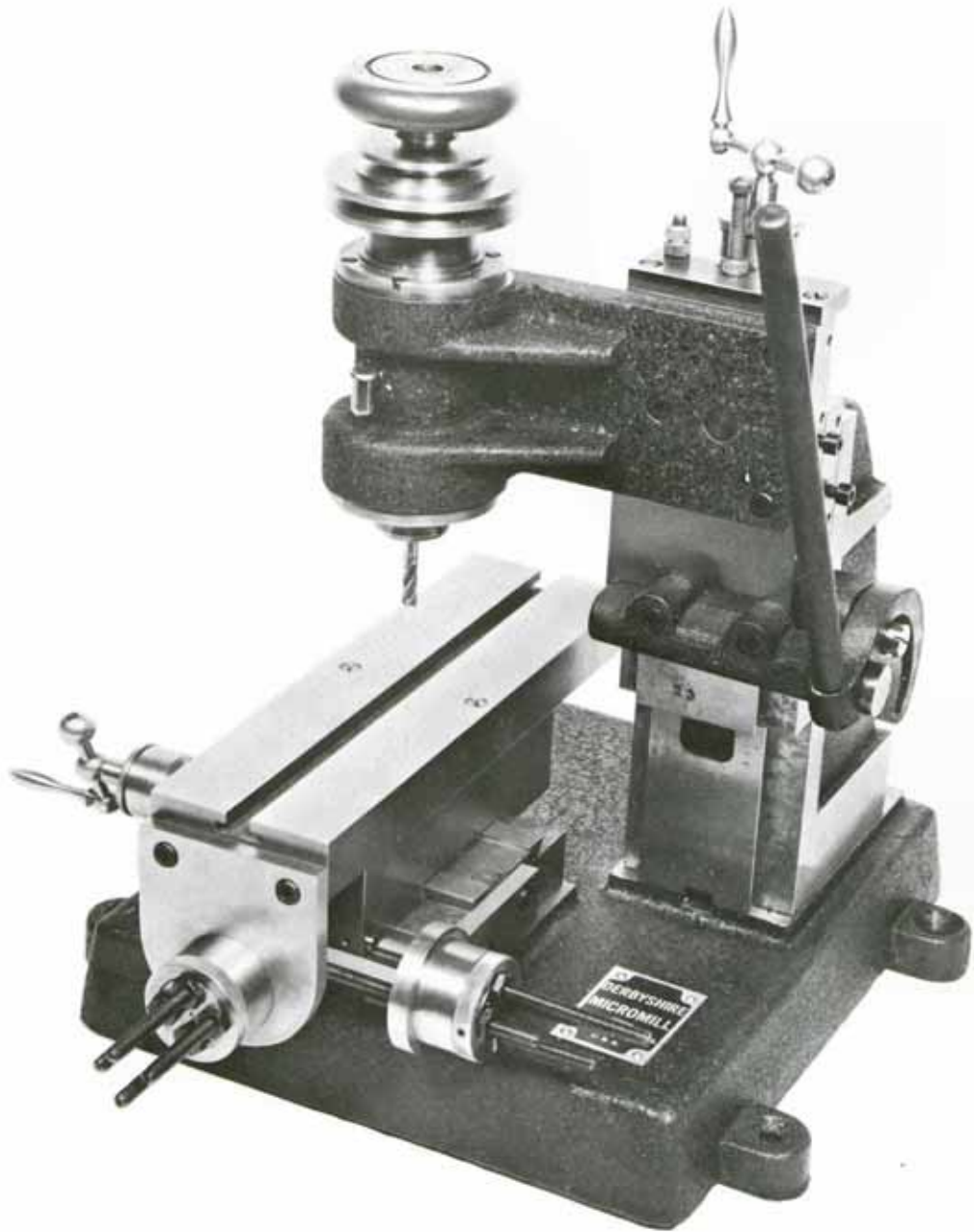
| | |
|--------------------------|------------------|
| Distance between centers | — 8½" |
| Center Height | — 2.35" (6 cm) |
| Swing | — 4.72" |
| Chuck Capacity | — .004" to .315" |

F. W. Derbyshire Inc.
Waltham 54, Massachusetts



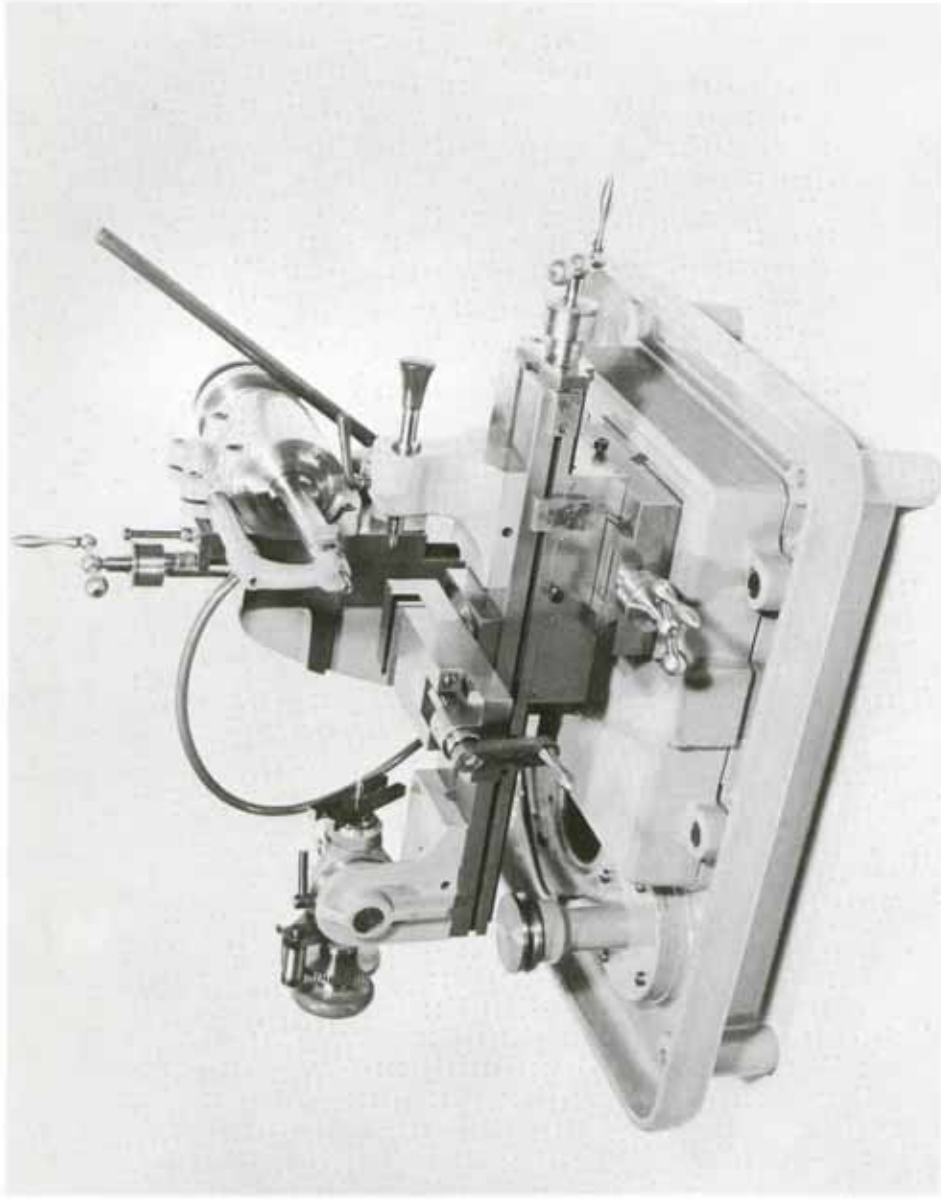
DERBYSHIRE Light Duty Instrument Lathe, MODEL A,
1/2" Collet Capacity with Draw-in Spindle, Double Compound
Slide Rest with Rack and Pinion, Screw Tailstock.

F. W. Derbyshire Inc.
Waltham 54, Massachusetts



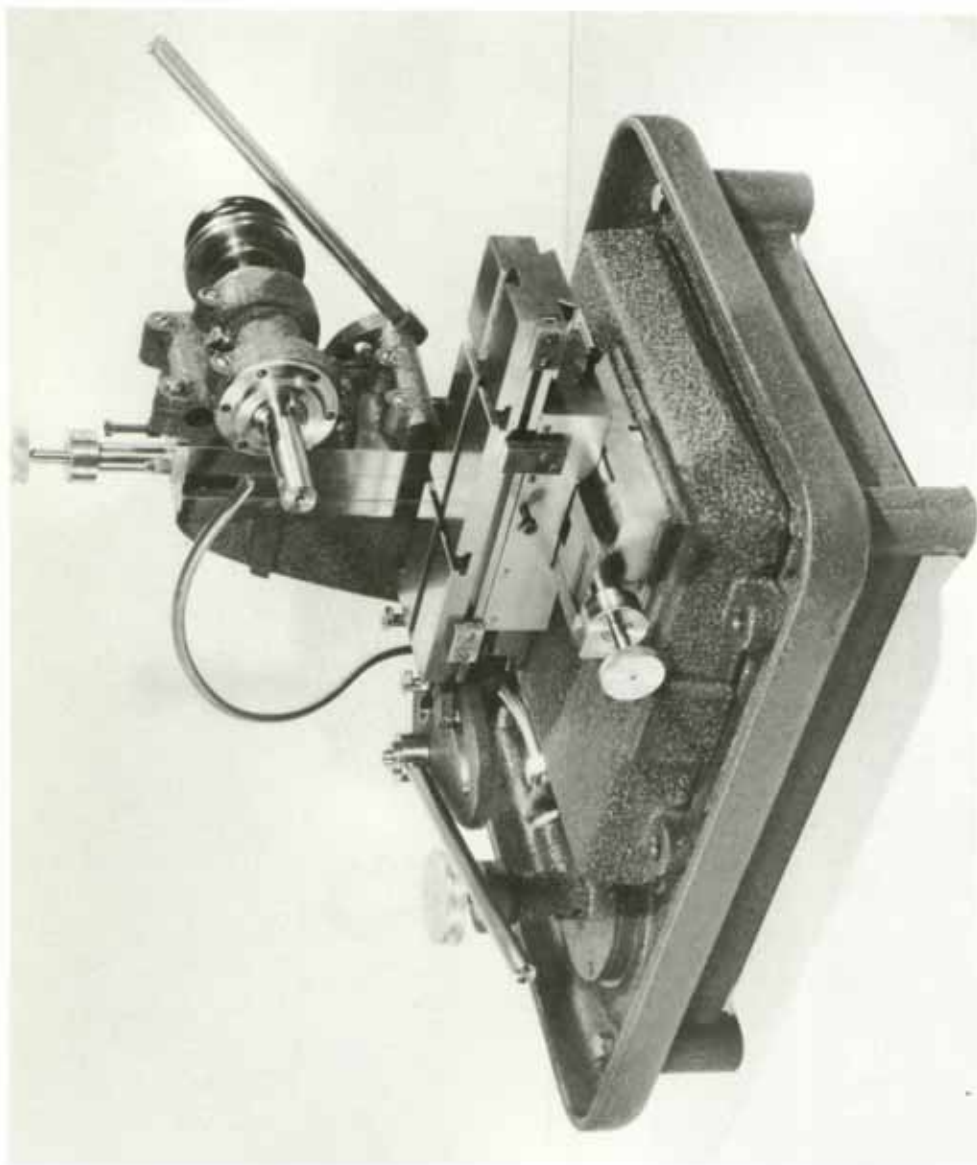
VERTICAL MICROMILL SHOWING 4-POSITION STOPS TO DO
LIGHT JIG WORK

F. W. Derbyshire Inc.
Waltham 54, Massachusetts



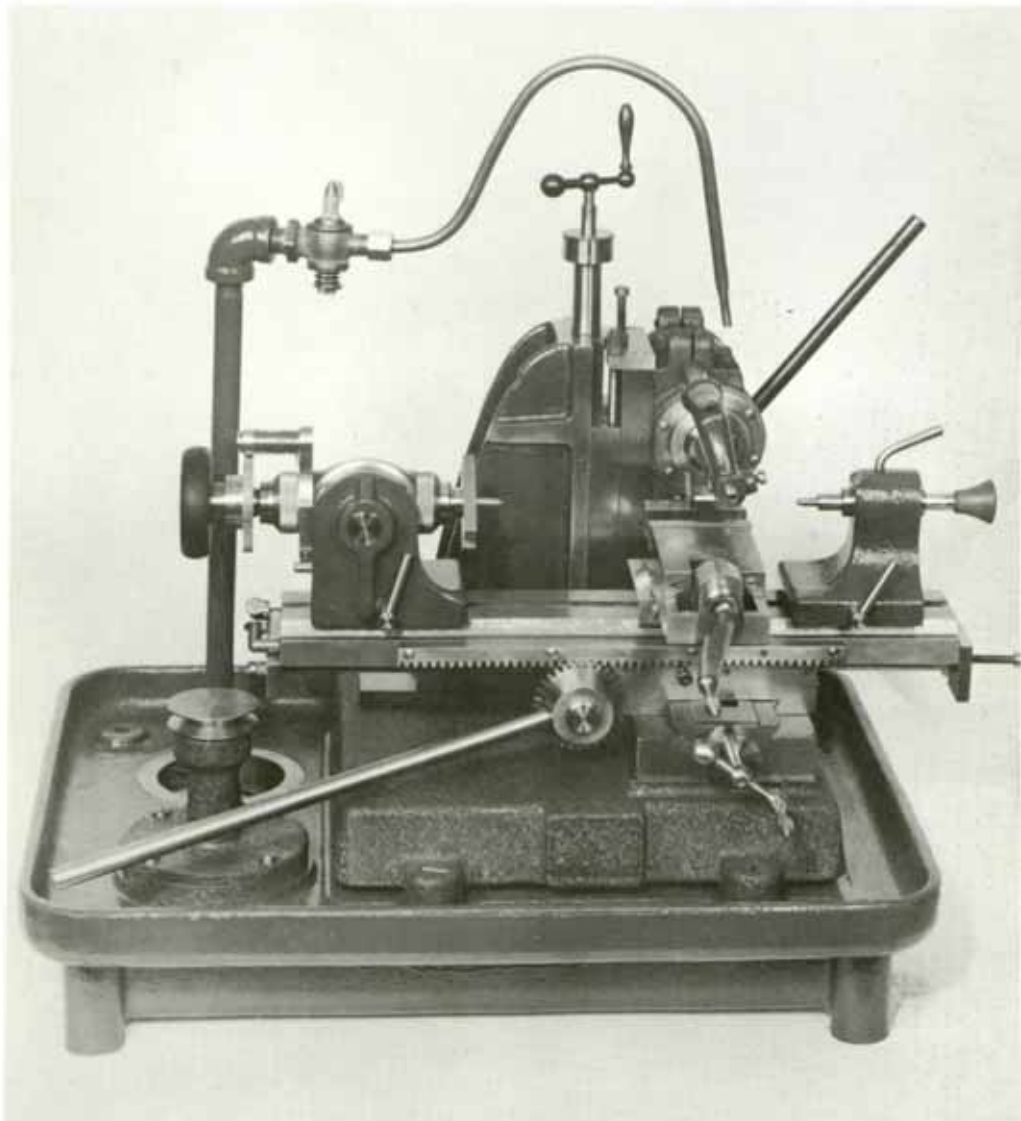
MODEL NO. 750-S MICROMILL with Ball Bearing Headstock, cam-operated Vertical Slide with screw-feed Vertical Adjustment, Screw-Feed Table Slide—slide 12" long, screw-feed Cross Slide, Cutter Arbor and Overarm Support. Shown with Semi-Universal Index Centers and Swivel Vise.

F. W. Derbyshire Inc.
Waltham 54, Massachusetts



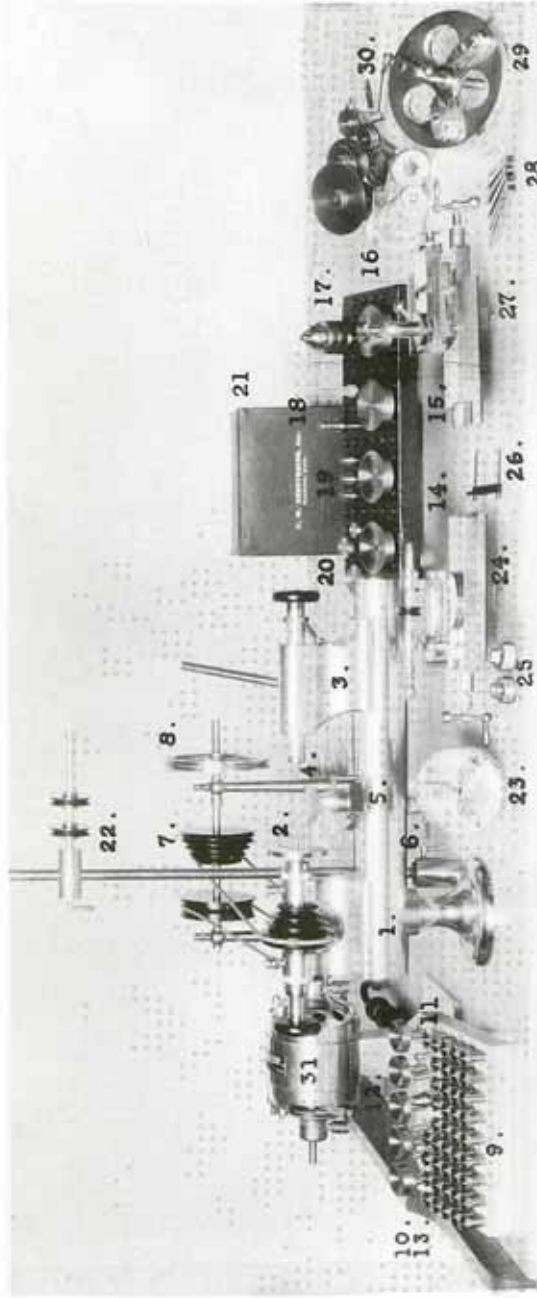
DERBYSHIRE MICROMILL—MODEL NO. 750—C
with cam action, oil pan and pump.

F. W. Derbyshire Inc.
Waltham 54, Massachusetts



F. W. Derbyshire Inc.
Waltham 54, Massachusetts

DERBYSHIRE MICROMILL, Model No. 750-12R, with 12" Table Slide,
rack-and-pinion operated, Semi-Universal Indexing Attachment and
Swivel Vise.



1. Lathe with 12" bed, pedestal, Cone-Bearing Headstock
2. Dog-face Plate Chuck
3. Combination Tailstock, rack and pinion feed
4. Taper Chuck with hard center
5. Tip-over Hand Rest
6. Shoe Bolt, Nut and Washer
7. Plain Countershaft with two pulleys
8. 4" Metal Speed Pulley
9. Wire Chucks
10. Set of five Wheel Chucks
11. Taper Chuck
12. Screw Chuck
13. Set of six Cement Brasses
14. Clock-wheel Chucks
15. Sawed Blank Chuck
16. Chuck Blank, not sawed

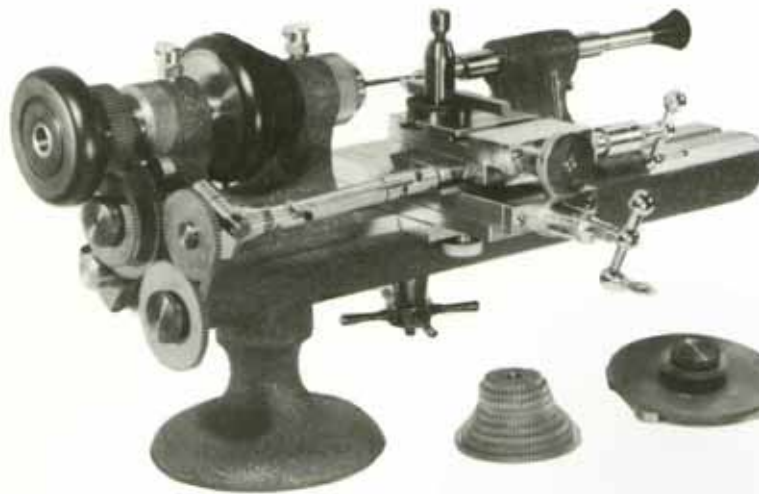
17. Jacobs No. 1A Drill Chuck
18. Saw Arbor Chuck
19. Jeweling Chucks, soft sawed only
20. Cement Brasses, $\frac{1}{2}$ ", $\frac{3}{8}$ " & 1" dia.
21. Chuck Box
22. Idler Pulleys and Stand
23. Three-jaw Chuck
24. Pivot Polisher with cross-feed screw
25. Boxwood and Bellmetal Laps
26. Dog for Dog-face Plate Chuck
27. Three-slided Slide Rest
28. Slide Rest Tools
29. Universal Face Plate
30. Screw-cutting Attachment to cut bath English and Metric Threads
31. Fractional horsepower motor

F. W. Derbyshire Inc.
Waltham 54, Massachusetts, U.S.A.

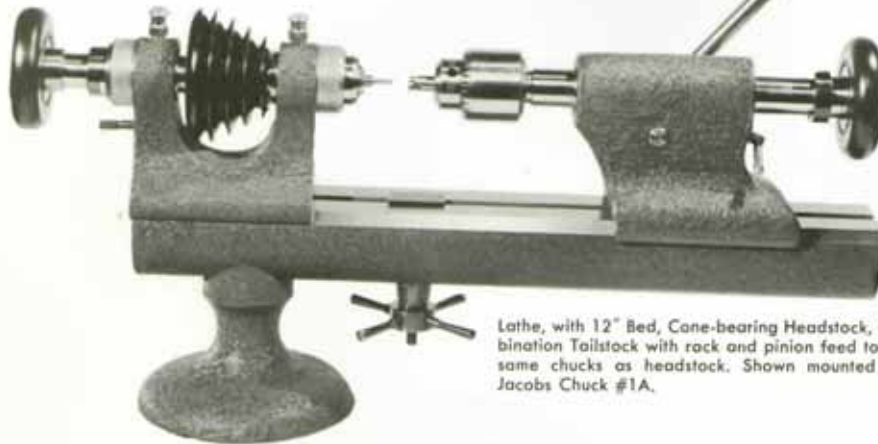


SEMI-AUTOMATIC SIX-POSITION TURRET for Derbyshire Webster Whitcomb, Derbyshire Large, and Magnus Lathes with $\frac{5}{8}$ " holes to take standard tools. The turret is suitable for all lathes with 5 centermeter height.

F. W. Derbyshire Inc.
Waltham 54, Massachusetts



Lathe, set up with Three-slided Slide Rest, Screw-cutting Attachment with 15 gears, Nos. 36, 40, 48, 50, 52, 56, 60 (1 c/m wide spindle gear #60) 64, 66, 72, 80, 88, 90 cut threads to the inch; plus Nos. 50 and 127 (translating gears) cut threads to the centimeter. No. 50 gear used as intermediate gear, engaged to cut right hand threads; disengage to cut left hand threads. Slide Rest Lead Screw has 40 threads per inch, gears 48 pitch.

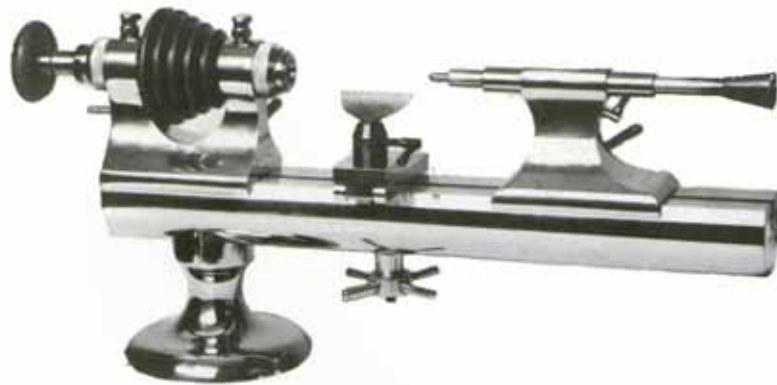


Lathe, with 12" Bed, Cone-bearing Headstock, Combination Tailstock with rock and pinion feed to take same chucks as headstock. Shown mounted with Jacobs Chuck #1A.

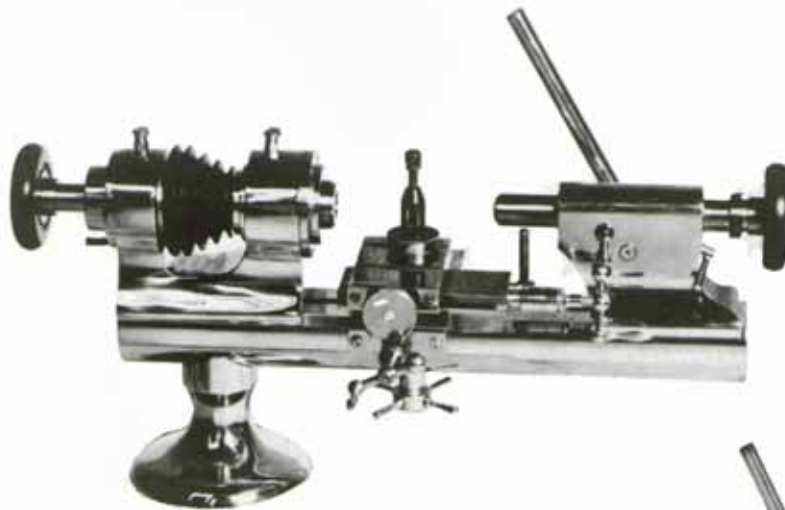
Lathe, consisting of 12" Bed, Ball Bearing Headstock with Spring-bind Collet Closer Attachment, Combination Tailstock, Shoe Bolt Nut, Washer.



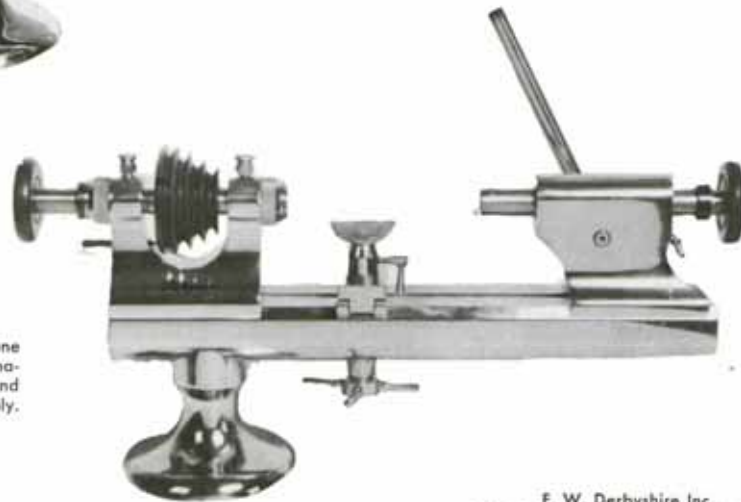
F. W. Derbyshire Inc.
Waltham 54, Massachusetts



Lathe: Nicked, 12" Bed, Cone Bearing Headstock, Plain Tailstock, Tip-over Hand Rest and Fixture Bolt Assembly.

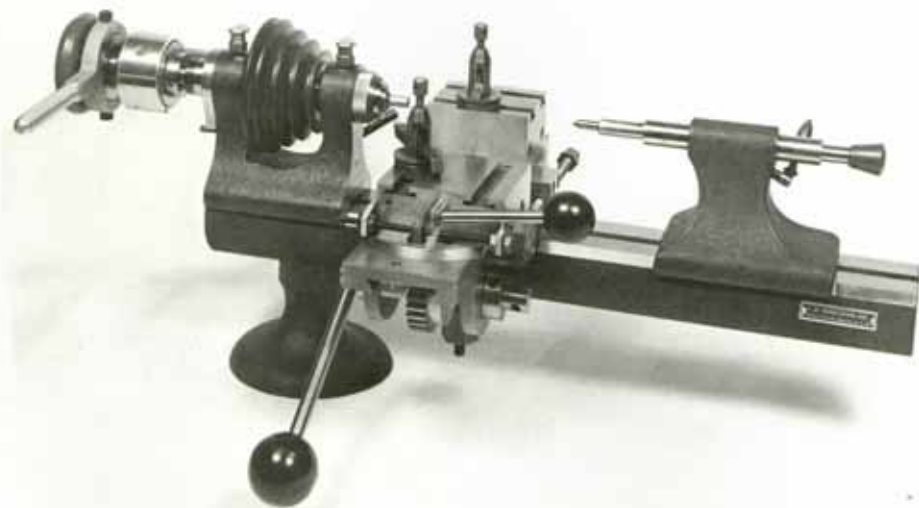
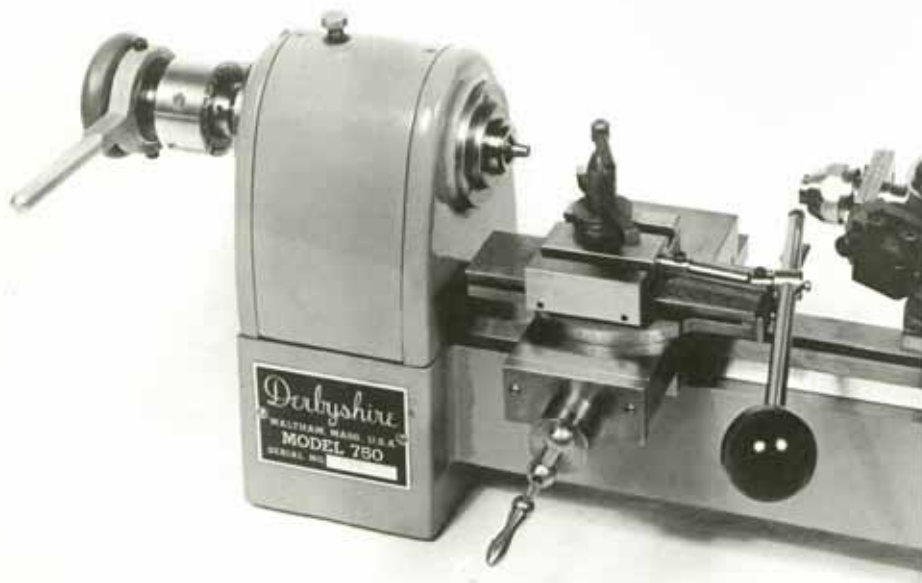


Lathe: Nicked, 12" Bed, Ball Bearing Headstock, Combination Tailstock, Three-slided Slide Rest, Fixture Bolt Assembly



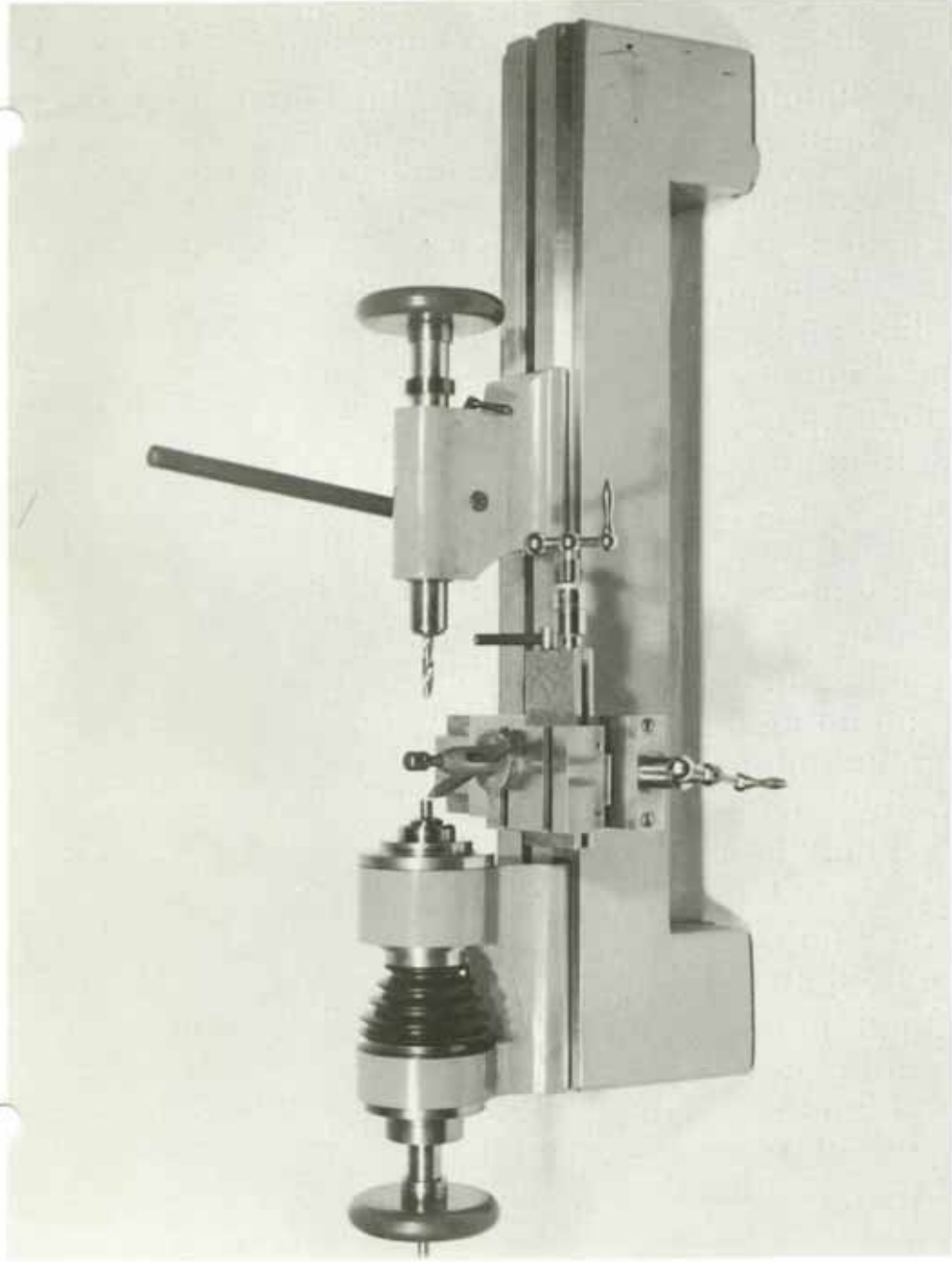
Lathe: Nicked, 12" Bed, Cone Bearing Headstock, Combination Tailstock, Tip-over Hand Rest and Fixture Bolt Assembly.

F. W. Derbyshire Inc.
Waltham 54, Massachusetts, U. S. A.



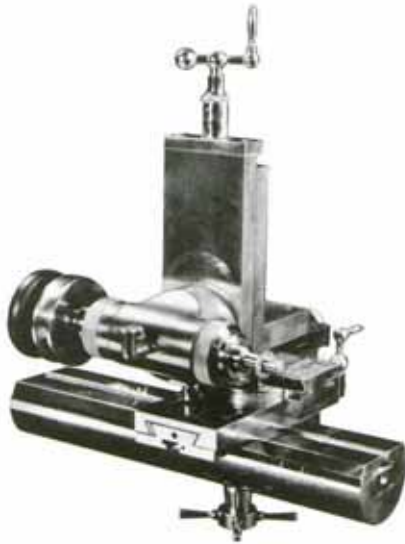
Lathes with New Hand Type Collet Closer. This type of closer will fit all Derbyshire Lathes with the exception of the MODEL A. The operator can adjust collet tension very quickly and change collets easily.

F. W. Derbyshire Inc.
Waltham 54, Massachusetts



MAGNUS LATHE, 18" Production Type Bed, Ball-Bearing Headstock, Two-slided Slide Rest, and Combination Tailstock with rack and pinion feed, to take same chucks as Headstock.

F. W. Derbyshire Inc.
Waltham 54, Massachusetts



WHEEL CUTTER AND MILLING ATTACHMENT

This attachment mounts on the top slide of the Slide Rest and comes complete with either a 4.4 m/m or a $\frac{1}{4}$ " Cutter Arbor. It makes possible a wide range of milling operations on the lathe.

Its vertical slide and the Slide Rest are graduated to .001". These slides and the graduated swivel provide any desired movement. The adjustable cone bearing Index Head has a hardened and ground steel spindle and bearings. It can be equipped with a 45, 72 or 125-tooth Index Plate and Latch, and takes the same collet as the Lathe Headstock.

The spindle can be run to 6500 RPM, which permits internal and external grinding to be done with ease and accuracy.



TUMBLE TAILSTOCK — FOUR SPINDLE

This is used when multiple tools are required in succession on light production work for which extremely close tolerances are specified. The four spindles, which are the sliding type, are mounted in a swinging frame, which allows each to be brought into alignment with the headstock by means of an indexing plate. Spindles are fitted with a taper hole and adjustable stop.



SIX-POSITION, SELF-INDEXING, SEMI-AUTOMATIC TURRET

The turret is a self-indexing mechanism. Turret holes are bored to permit use of standard tools with $\frac{1}{8}$ " diameter shanks. The turret indexes automatically one position on the rearward stroke of the hand lever. Individual adjustable stops for each of the turret positions is provided. A neutral position is provided at the center of the stroke so that the turret can be rotated freely by hand. The travel is $1\frac{3}{8}$ ".

F. W. Derbyshire Inc.
Waltham 54, Massachusetts



Cat. No. 2162

Derbyshire Index Plate, 8" dia., w/Index Pawl, 36 rows of holes, all numbers to 80 and even numbers to 100; also 144-360-365 and 366.



Boring and Facing—Lever Action Slide Rest (for Elect and Model No. 750 only) Cat. No. 3075



Elect Jeweling Rest with Caliper, Depthing Device and Cross Feed Screw. For cutting outside and inside diameters for jewels or settings. Depthing device is for gauging depth of recess for setting or jewel. Cross Feed Screw is for turning and facing up work. Cat. No. 3038.



Idler Pulleys and Stand (for driving Pivot Polisher or Wheel Cutter and Milling Attachment) Cat. No. 1020

F. W. Derbyshire Inc.
Waltham 54, Massachusetts



SHOE BOLT, NUT AND WASHER



"L" REST



Back Rest w/shoe bolt, nut, and washer



SAW ARBOR CHUCK



TIP-OVER HAND REST ONLY

F. W. Derbyshire Inc.
Waltham 54, Massachusetts

HALF-OPEN TAILSTOCK



These tailstocks are used for light, sensitive production, drilling, reaming, counterboring, tapping, etc. Tools may be mounted in separate spindles, each one regulated by an adjustable screw so that proper operational depth may be maintained. The upper half of the Half-open Tailstock spindle bearings are cut away so that multiple spindles may be changed rapidly. Extra spindles may be purchased at any time.

CLOSED TAILSTOCK



COMBINATION TAILSTOCK

The spindle is lever-operated with a rack and pinion feed, and takes the same chucks as the headstock. This is the most productive of all tailstocks for precision drilling, reaming, lapping, boring and turning.





PLAIN TAILSTOCK



Combination Tailstock, Plain, takes same chucks as headstock.



SCREW TAILSTOCK

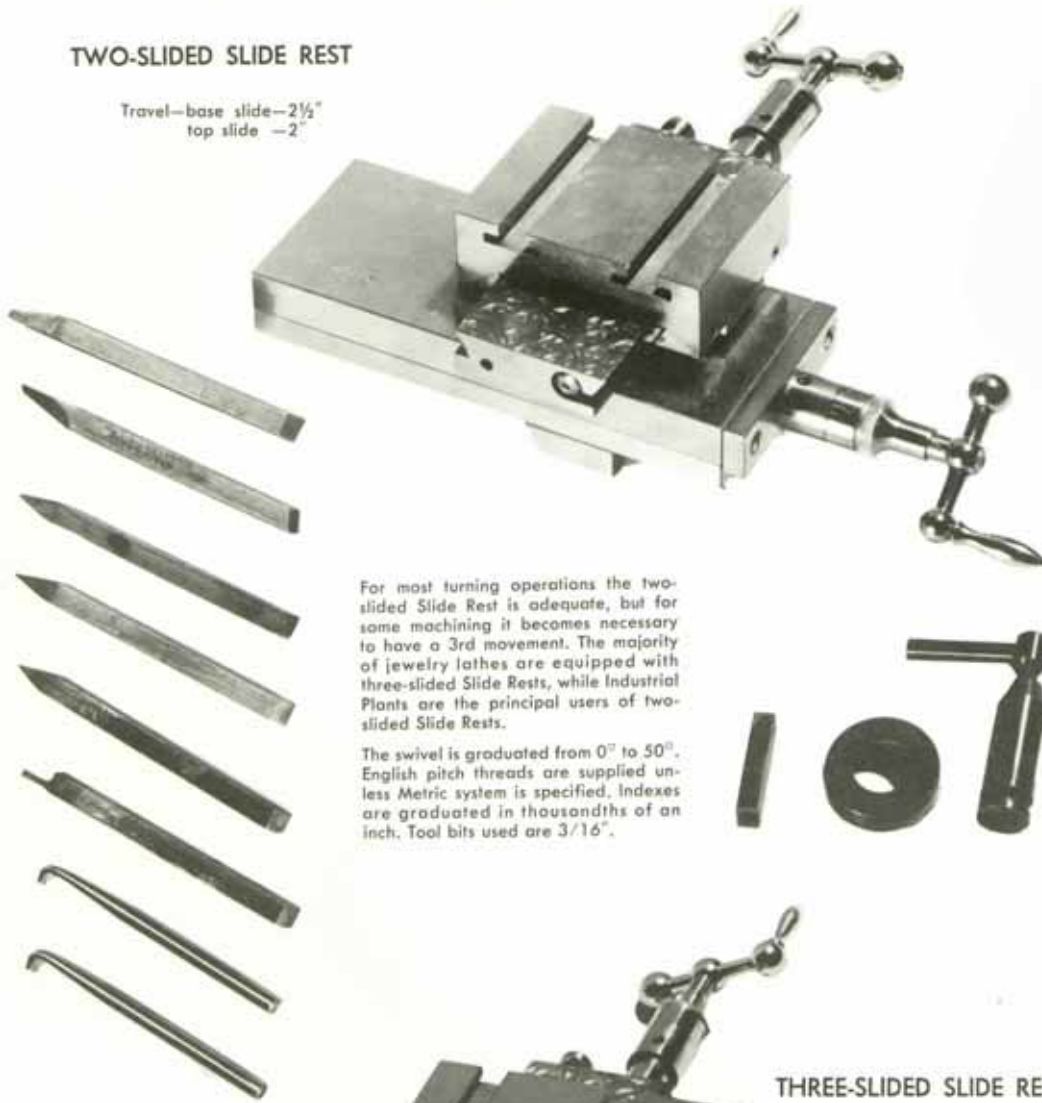


LEVER TAILSTOCK TO TAKE JACOBS CHUCK

F. W. Derbyshire Inc.
Waltham 54, Massachusetts

TWO-SLIDED SLIDE REST

Travel—base slide— $2\frac{1}{2}$ "
top slide —2"

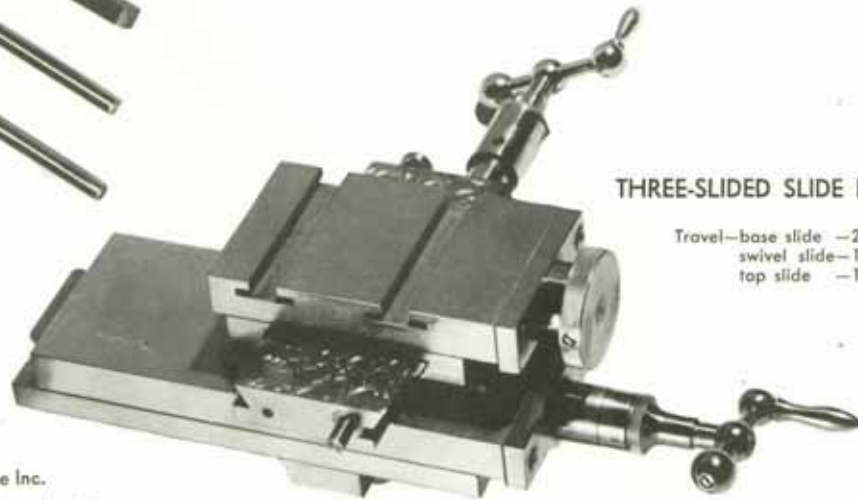


For most turning operations the two-slided Slide Rest is adequate, but for some machining it becomes necessary to have a 3rd movement. The majority of jewelry lathes are equipped with three-slided Slide Rests, while Industrial Plants are the principal users of two-slided Slide Rests.

The swivel is graduated from 0° to 50° . English pitch threads are supplied unless Metric system is specified. Indexes are graduated in thousandths of an inch. Tool bits used are $3/16$ ".

THREE-SLIDED SLIDE REST

Travel—base slide — $2\frac{1}{2}$ "
swivel slide— $1\frac{3}{8}$ "
top slide —1"

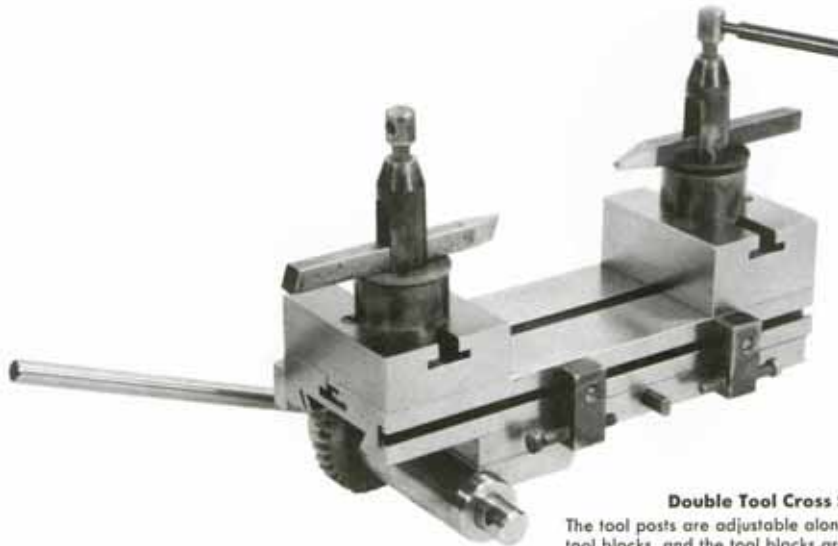


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Waltham 54, Massachusetts



Lever Action Slide Rest

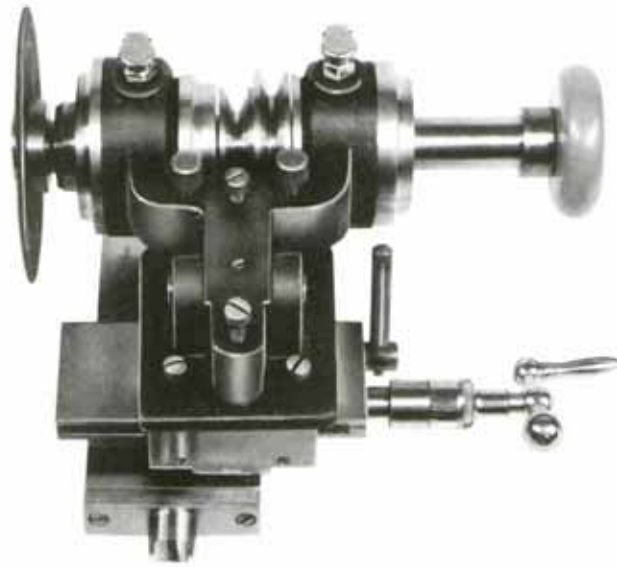
Shown as Two-slided Slide Rest. Also supplied with Three-slided Slide Rest. An adjustable stop controls length of feed. Can be supplied with any lathe unit.



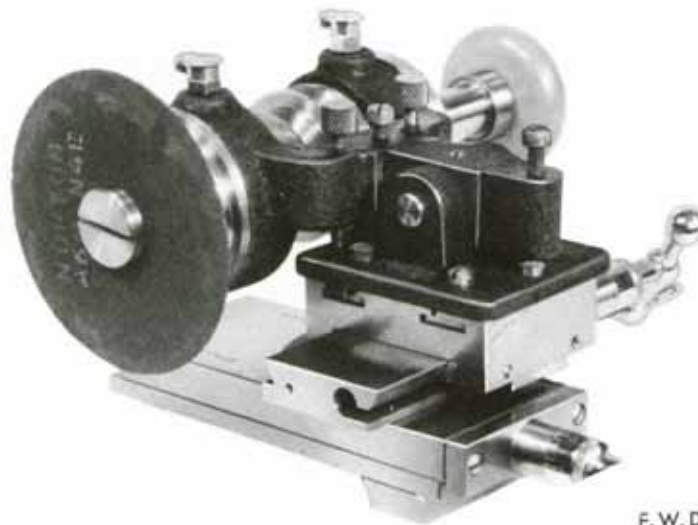
Double Tool Cross Slide

The tool posts are adjustable along the T-slots of the tool blocks, and the tool blocks are adjustable along the cross slide T-slot. May be equipped with multiple tool posts. Adjustable stops are provided for control of slide movement in both directions. Its use is recommended for the forming and cutting-off of duplicate parts.

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Waltham 54, Massachusetts

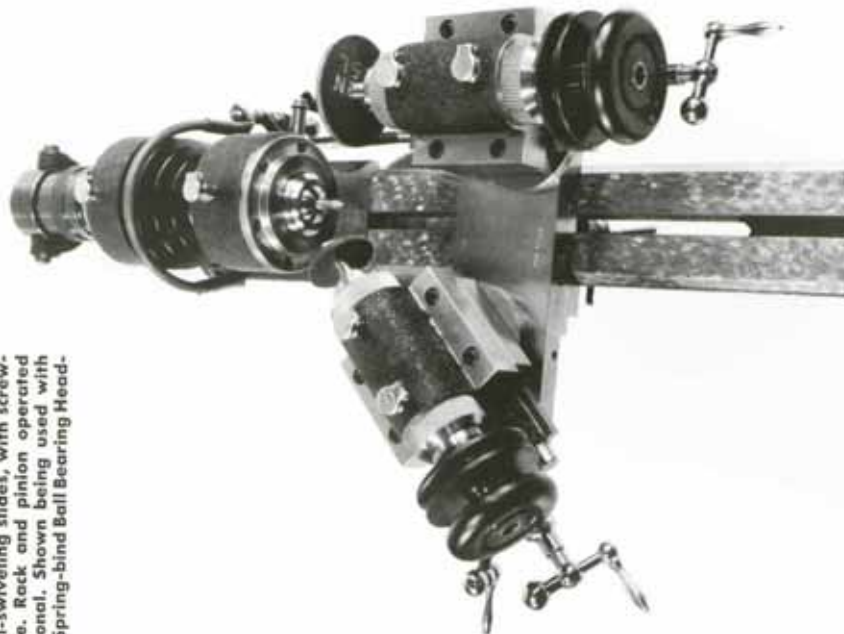


Adjustable Height Grinder: for internal and external cylindrical grinding. The ball bearing grinder with spindle speeds to 12,000 RPM is held in the T slots of the Compound Slide Rest. The feeds are controlled by the base and swivel feed screws of the Compound Slide Rest. The frame is adjustable vertically by thumb screws to change spindle relationship to the center line of the headstock spindle. The spindle also takes standard MAGNUS-ELECT wire chucks to hold mounted tips. Arbors are $\frac{1}{4}$ " or $\frac{3}{8}$ ". Cat. No. 2485



F. W. Derbyshire Inc.
Waltham 54, Massachusetts

Duplex Grinding Heads mounted on two screw-feed, full-swiveling slides, with screw-feed base slide. Rack and pinion operated slides are optional. Shown being used with quick-opening Spring-bind Ball Bearing Headstock.



Lathe—showing Headstock with Spring-bind Collet Closer attachment. The brake belt can be removed and work chucked with spindle running.

F. W. Derbyshire Inc.
Waltham 54, Massachusetts



Adjustable Chuck Stop



Cutter Arbors $\frac{1}{4}$ "
or $\frac{3}{8}$ " Diameter



Male Center hard-
ened and ground
 $\frac{3}{8}$ " Diameter



Male Center hard-
ened and ground
 $\frac{3}{8}$ " Diameter



Grinding Wheel
Arbor Chuck



Fly Cutter
Arbor Chuck



Saw Arbor Chuck
4.4 M/M or
 $\frac{1}{8}$ " Diameter



Drill Plate $1\frac{1}{4}$ " Diameter



"Y" Center — for center-
ing round or square work



Ball bearing Centers
Male or Female



F. W. Derbyshire Inc.
Waltham 54, Massachusetts



Jacobs' #1A Drill Chuck mounted on chuck stem.



SAWED BLANK CHUCKS
made in diameters up to 3"



Jumbo Chuck



Grinding
Wheel Arbor



Universal Face Plate mounted on chuck stem.



F. W. Derbyshire Inc.
Waltham 54, Massachusetts, U.S.A.



Bracelet Chuck $\frac{5}{8}$ " dia., 1 thru 5



Wheel Chucks, 1" dia., sizes 1 thru 5



Clock-Wheel Chucks, $1\frac{3}{4}$ " dia., Sizes 6 thru 10.

F. W. Derbyshire Inc.
Waltham 54, Massachusetts

WIRE CHUCKS



D. Large
1 to 63.5



D. Webster-Whitcomb
Sizes 1 to 50



Magnus-Elect
Sizes 1 to 80



CEMENT BRASSES
1" 3/4"



1/4" Cement Brasses



Fly Cutter
Arbor



Saw Arbor
Chuck



Taper
Chuck



Jeweling
Chuck

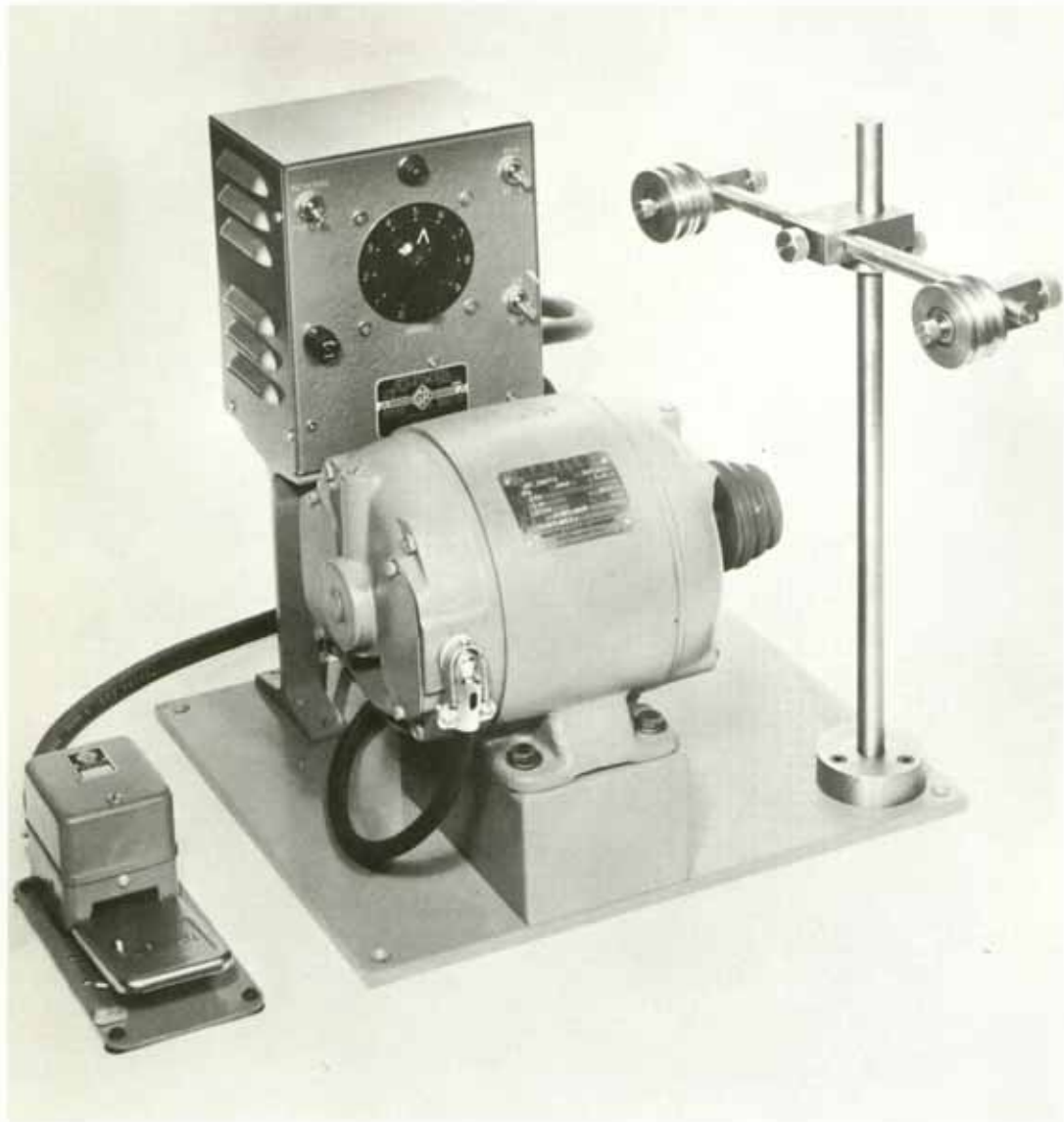


Taper Chuck



Screw Chuck

F. W. Derbyshire Inc.
Waltham 54, Massachusetts



With the above variable speed motor drive unit, speeds of from 0 to 4000 RPM can be obtained. The unit contains no tubes and the motor can be stopped or reversed at any speed. Dynamic braking is a standard feature on this unit. It can be supplied with a double shaft to run the Idler Pulley and Stand and Lathe from same unit. Two sizes of units are available — the smaller unit has a $\frac{1}{8}$ HP Motor and the larger unit has a $\frac{1}{2}$ HP Motor. A foot switch is included and the unit is wired and ready to plug in. These Motor Drives are designed for operation on 110 Volt, 60 cycle, 1 phase, AC current. The Idler Pulley and Stand can be adjusted in all directions and will follow the travel of the tools being driven.

F. W. Derbyshire Inc.
Waltham 54, Massachusetts

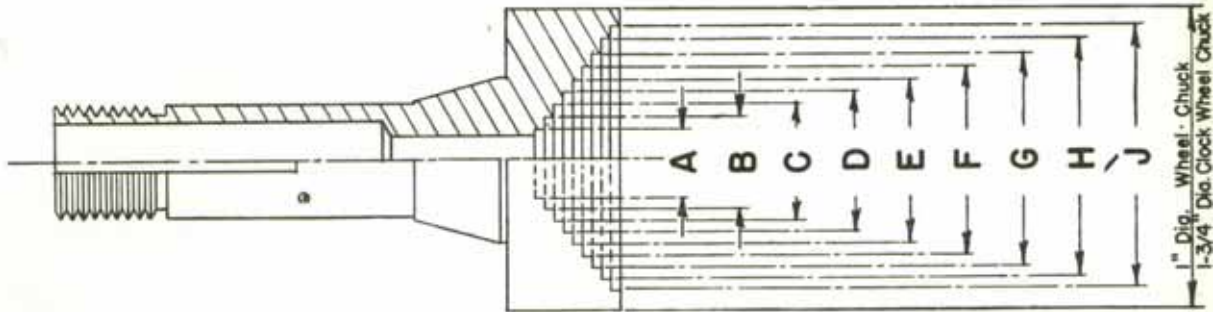


COMPLETE MOTOR DRIVE UNIT
Motor Unit, 15" x 11" complete with $\frac{1}{2}$ HP, 60 cycle, 1 phase Motor or $\frac{1}{4}$ HP, 60 cycle, 1 phase Motor, with Cutter-Hammer Drum Reverse Switch and Furnas Foot Switch, Countershaft and Pulleys. Wired and ready to plug in. Speeds obtainable are from 400 to 2800 RPM in 12 steps of approximately 200 RPM from Motor to Countershaft to Lathe. Unit sets on top of bench and two screws only are needed to hold unit on bench. Pt. No. 10230 and 10240.
 $\frac{1}{2}$ HP Motor for MAGNUS, D.W.W. and D-LARGE Lathes.
 $\frac{1}{4}$ HP Motor for ELECT and MODEL 750 Lathes.

F. W. Derbyshire Inc.
Waltham 54, Massachusetts

WHEEL AND CLOCK CHUCK EQUIVALENTS

F. W. Derbyshire, Inc. Waltham, Massachusetts



WHEEL CHUCKS

Depth of Step = .4 m/m

| Chuck No. | A | | B | | C | | D | | E | | F | | G | | H | | J | |
|-----------|-----|--------|-----|--------|------|--------|------|--------|------|--------|------|--------|------|--------|------|--------|------|--------|
| | M/M | Inches | M/M | Inches | M/M | Inches | M/M | Inches | M/M | Inches | M/M | Inches | M/M | Inches | M/M | Inches | M/M | Inches |
| 1 | 5.4 | .2126 | 7.4 | .2913 | 9.4 | .3700 | 11.4 | .4488 | 13.4 | .5275 | 15.4 | .6063 | 17.4 | .6850 | 19.4 | .7637 | 21.4 | .8425 |
| 2 | 5.8 | .2283 | 7.8 | .3070 | 9.8 | .3858 | 11.8 | .4645 | 13.8 | .5433 | 15.8 | .6220 | 17.8 | .7007 | 19.8 | .7795 | 21.8 | .8582 |
| 3 | 6.2 | .2440 | 8.2 | .3228 | 10.2 | .4015 | 12.2 | .4803 | 14.2 | .5590 | 16.2 | .6377 | 18.2 | .7165 | 20.2 | .7952 | 22.2 | .8740 |
| 4 | 6.6 | .2598 | 8.6 | .3385 | 10.6 | .4173 | 12.6 | .4960 | 14.6 | .5748 | 16.6 | .6535 | 18.6 | .7322 | 20.6 | .8110 | 22.6 | .8897 |
| 5 | 7.0 | .2755 | 9.0 | .3543 | 11.0 | .4330 | 13.0 | .5118 | 15.0 | .5905 | 17.0 | .6692 | 19.0 | .7480 | 21.0 | .8267 | 23.0 | .9055 |

CLOCK WHEEL CHUCKS

Depth of Step = .4 m/m

| Chuck No. | A | | B | | C | | D | | E | | F | | G | | H | | J | |
|-----------|------|--------|------|--------|------|--------|------|--------|------|--------|------|--------|------|--------|------|--------|------|--------|
| | M/M | Inches | M/M | Inches | M/M | Inches | M/M | Inches | M/M | Inches | M/M | Inches | M/M | Inches | M/M | Inches | M/M | Inches |
| 6 | 23.4 | .9212 | 25.4 | 1.0000 | 27.4 | 1.0787 | 29.4 | 1.1574 | 31.4 | 1.2362 | 33.4 | 1.3149 | 35.4 | 1.3937 | 37.4 | 1.4724 | 39.4 | 1.5511 |
| 7 | 23.8 | .9370 | 25.8 | 1.0157 | 27.8 | 1.0944 | 29.8 | 1.1732 | 31.8 | 1.2519 | 33.8 | 1.3307 | 35.8 | 1.4094 | 37.8 | 1.4881 | 39.8 | 1.5669 |
| 8 | 24.2 | .9527 | 26.2 | 1.0314 | 28.2 | 1.1102 | 30.2 | 1.1889 | 32.2 | 1.2677 | 34.2 | 1.3464 | 36.2 | 1.4251 | 38.2 | 1.5039 | 40.2 | 1.5826 |
| 9 | 24.6 | .9685 | 26.6 | 1.0472 | 28.6 | 1.1259 | 30.6 | 1.2047 | 32.6 | 1.2834 | 34.6 | 1.3622 | 36.6 | 1.4409 | 38.6 | 1.5196 | 40.6 | 1.5984 |
| 10 | 25.0 | .9842 | 27.0 | 1.0629 | 29.0 | 1.1417 | 31.0 | 1.2204 | 33.0 | 1.2992 | 35.0 | 1.3779 | 37.0 | 1.4566 | 39.0 | 1.5354 | 41.0 | 1.6141 |

F. W. DERBYSHIRE, INC.

WALTHAM 54, MASSACHUSETTS

Chuck Sizes and Equivalents

| DERBYSHIRE METRIC | DECIMALS OF INCH | INCH | WIRE GAUGE | DERBYSHIRE METRIC | DECIMALS OF INCH | INCH | WIRE GAUGE | DERBYSHIRE METRIC | DECIMALS OF INCH | INCH | WIRE GAUGE |
|-------------------|------------------|------|------------|-------------------|------------------|------|------------|-------------------|------------------|------|------------|
| 1 | .004 | | | 9½ | .0374 | | | 22 | .0866 | | |
| 2 | .008 | | | | .0380 | | 62 | | .089 | | 43 |
| 2½ | .010 | | | | .0390 | | 61 | 23 | .0905 | | |
| 3 | .0118 | | | 10 | .0394 | | | | .0935 | | 42 |
| | .0135 | | 80 | | .040 | | 60 | | .0937 | ¾ | |
| 3½ | .0139 | | | | .0410 | | 59 | 24 | .0945 | | |
| | .0145 | | 79 | 10½ | .0414 | | | | .096 | | 41 |
| | .0156 | ¼ | | | .0420 | | 58 | | .098 | | 40 |
| 4 | .0157 | | | | .0430 | | 57 | 25 | .0984 | | |
| | .016 | | 78 | 11 | .0433 | | | | .0995 | | 39 |
| 4½ | .0178 | | | | .0465 | | 56 | | .1015 | | 38 |
| | .018 | | 77 | | .0469 | ¾ | | 26 | .1024 | | |
| 5 | .0197 | | | 12 | .0472 | | | | .104 | | 37 |
| | .020 | | 76 | 13 | .0512 | | | 27 | .1063 | | |
| | .021 | | 75 | | .052 | | 55 | | .1065 | | 36 |
| 5½ | .0216 | | | | .055 | | 54 | | .1093 | ¾ | |
| | .0225 | | 74 | 14 | .0551 | | | | .110 | | 35 |
| 6 | .0236 | | | 15 | .059 | | | 28 | .1102 | | |
| | .024 | | 73 | | .0595 | | 53 | | .1110 | | 34 |
| | .025 | | 72 | | .0625 | ½ | | | .113 | | 33 |
| 6½ | .0257 | | | 16 | .0629 | | | 29 | .1142 | | |
| | .026 | | 71 | | .0635 | | 52 | | .116 | | 32 |
| 7 | .0276 | | | 17 | .0669 | | | 30 | .1181 | | |
| | .028 | | 70 | | .067 | | 51 | | .120 | | 31 |
| | .0293 | | 69 | | .070 | | 50 | 31 | .1220 | | |
| 7½ | .0295 | | | 18 | .0709 | | | | .125 | ⅝ | |
| | .031 | | 68 | | .0730 | | 49 | 32 | .126 | | |
| | .0313 | ¾ | | 19 | .0748 | | | | .1285 | | 30 |
| 8 | .0315 | | | | .076 | | 48 | 33 | .1299 | | |
| | .0320 | | 67 | | .0781 | ¾ | | 34 | .1338 | | |
| | .033 | | 66 | | .0785 | | 47 | | .1360 | | 29 |
| 8½ | .0335 | | | 20 | .0787 | | | 35 | .1378 | | |
| | .035 | | 65 | | .0810 | | 46 | | .1405 | | 28 |
| 9 | .0354 | | | | .082 | | 45 | | .1406 | ¾ | |
| | .0360 | | 64 | 21 | .0826 | | | 36 | .1417 | | |
| | .0370 | | 63 | | .086 | | 44 | | .1440 | | 27 |

F. W. DERBYSHIRE, INC.
WALTHAM, MASSACHUSETTS, U. S. A.

Chuck Sizes and Equivalents

| DERBYSHIRE METRIC | DECIMALS OF INCH | INCH | WIRE GAUGE | DERBYSHIRE METRIC | DECIMALS OF INCH | INCH | WIRE GAUGE | DERBYSHIRE METRIC | DECIMALS OF INCH | INCH | WIRE GAUGE |
|-------------------|------------------|-----------------|------------|-------------------|------------------|-----------------|------------|-------------------|------------------|-----------------|------------|
| 37 | .1456 | | | 50 | .1969 | | | 65 | .2559 | | |
| | .1470 | | 26 | | .199 | | 8 | | .2570 | | F |
| | .1495 | | 25 | 51 | .2008 | | | 66 | .2598 | | |
| 38 | .1496 | | | | .201 | | 7 | | .261 | | G |
| | .152 | | 24 | | .2031 | $\frac{13}{64}$ | | 67 | .2638 | | |
| 39 | .1535 | | | | .2040 | | 6 | | .2656 | $\frac{17}{64}$ | |
| | .154 | | 23 | 52 | .2047 | | | | .2660 | | H |
| | .1562 | $\frac{5}{32}$ | | | .2055 | | 5 | 68 | .2677 | | |
| | .1570 | | 22 | 53 | .2087 | | | 69 | .2716 | | |
| 40 | .1575 | | | | .2090 | | 4 | | .272 | | I |
| | .1590 | | 21 | 54 | .2126 | | | 70 | .2756 | | |
| | .160 | | 20 | | .2130 | | 3 | | .2770 | | J |
| 41 | .1614 | | | 55 | .2165 | | | 71 | .2795 | | |
| 42 | .1654 | | | | .2187 | $\frac{7}{32}$ | | | .281 | | K |
| | .1660 | | 19 | 56 | .2205 | | | | .2812 | $\frac{9}{32}$ | |
| 43 | .1693 | | | | .221 | | 2 | 72 | .2835 | | |
| | .1695 | | 18 | 57 | .2244 | | | 73 | .2874 | | |
| | .1719 | $\frac{11}{64}$ | | | .228 | | 1 | | .290 | | L |
| | .1730 | | 17 | 58 | .2283 | | | 74 | .2913 | | |
| 44 | .1732 | | | 59 | .2323 | | | | .295 | | M |
| | .1770 | | 16 | | .234 | | A | 75 | .2953 | | |
| 45 | .1772 | | | | .2344 | $\frac{15}{64}$ | | | .2968 | $\frac{19}{64}$ | |
| | .1800 | | 15 | 60 | .2362 | | | 76 | .2992 | | |
| 46 | .1811 | | | | .238 | | B | | .3020 | | N |
| | .182 | | 14 | | .2401 | | | 77 | .3031 | | |
| 47 | .185 | | 13 | 61 | .242 | | | 78 | .3071 | | |
| | .1875 | $\frac{3}{16}$ | | | .2441 | | C | 79 | .3110 | | |
| 48 | .189 | | 12 | 62 | .246 | | | | .3125 | $\frac{5}{16}$ | |
| | .191 | | 11 | | .248 | | D | 80 | .315 | | |
| 49 | .1929 | | | 63 | .250 | $\frac{1}{4}$ | E | | | | |
| | .1935 | | 10 | 635 | .252 | | | | | | |
| | .196 | | 9 | 64 | | | | | | | |

F. W. DERBYSHIRE, INC.
WALTHAM, MASSACHUSETTS, U. S. A.