

OBSCLETE BULLETIN

BULLETIN 39-A-10
5-1-1953

**A
POPULAR
SIZE
ENGINE
LATHE

FOR
GENERAL
USE**

C&J

16 INCH — 12 SPEED

**GEARED HEAD
LATHES**

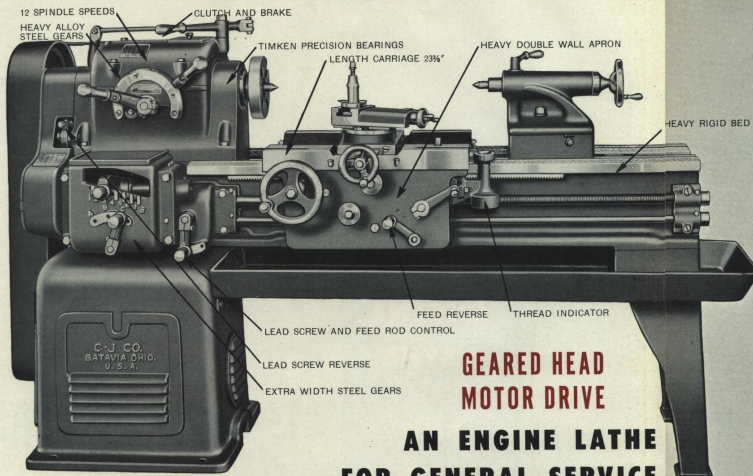


MODERN IN DESIGN AND CONSTRUCTION

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CARROLL & JAMIESON LATHES

16 inch -- 12 speed



**GEARED HEAD
MOTOR DRIVE**
**AN ENGINE LATHE
FOR GENERAL SERVICE**

SPECIFICATIONS

Swing over bed 16 1/4 in.	Hole in spindle 1 1/4 in.
Swing over carriage 11 3/8 in.	Morse taper centers No. 3
Diameter tail stock sleeve 1 1/2 in.	Speed of drive shaft 250 r.p.m.
Length carriage 23 3/8 in.	Speed of motor 1150 r.p.m.
Width cross slide 6 7/8 in.	Horsepower, motor 2
Distance between centers 6-ft. bed 38 in.	Lengths, bed 5, 6, 8, 10, 12 or 14 ft.
Diameter nose of spindle 2 3/8 in.	Weight, 16 in. x 8 ft., crated App. 3000 lbs.

NOTE: Oil pan is furnished as an extra.

COMPARE THESE FEATURES

ALL GEARED HEAD

Enormous pulling power to spindle which is mounted on Timken Precision Roller Bearings. Quicker speed changes.

12 SPINDLE SPEEDS

From 14 to 510 r.p.m.

CLUTCH AND BRAKE

Standard, without extra charge. Motor may run continuously.

SEPARATE ROD FOR FEED

Lead screw to be used only for thread chasing.

EQUIPMENT INCLUDES

Thread indicator, steady rest, face plates, centers, wrenches, Vee-belts, pulleys and base for motor.

LENGTH OF CARRIAGE

23 3/8 inches.

LUBRICATION

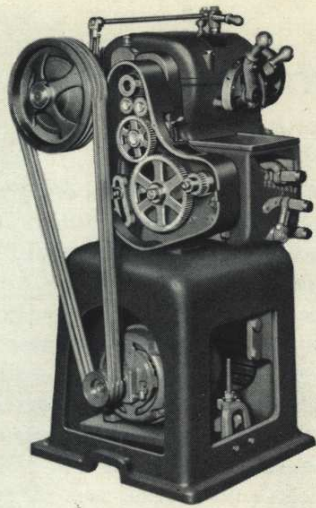
Provided through special oil reservoirs and tubes to bearings.

RIGIDITY

Assured for dependable, accurate general purpose cutting.

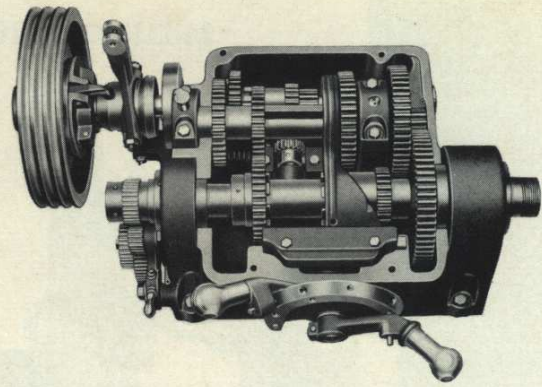
ACCURACY GUARANTEED TO
GOOD COMMERCIAL STANDARDS

**C & J LATHES TESTED UNDER
POWER BEFORE SHIPMENT**



MOTOR DRIVE ARRANGEMENT AND END GEARING WITH GUARDS REMOVED

Motor Drive is arranged by mounting the motor in cabinet leg driving through *triple vee* belts to clutch pulley on drive shaft. This arrangement transmits full power required, quietly and smoothly. Adjustment provided for belt tension. Drive belt is guarded. Motor employed is a 2 h.p. 1150 r.p.m. Easy access to motor is provided. Carriage has liberal length of bearing, giving great rigidity on heavy pulls. A special clamp, conveniently operated, secures the carriage to bed when doing facing work. Felt-packed brass wipers attached to carriage protect the bearings. Cross Slide and Compound Rest are fitted with adjustable taper gibs. Cross feed screw and compound rest screw have graduated collar reading in one-thousandths inch. The Compound Rest Swivel is graduated to 360 degrees. Rack is steel, machine cut.



INTERIOR VIEW OF GEARED HEADSTOCK

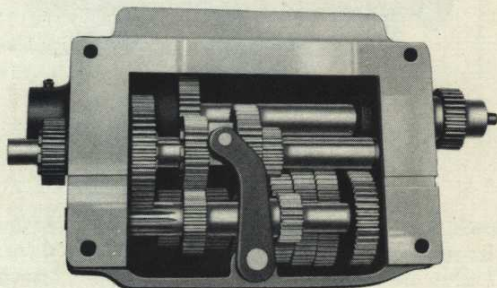
Geared Headstock is, we believe, unsurpassed for convenience, power and durability. Twelve spindle speeds are obtained through two levers, ranging from 14 to 510 r.p.m. Gears are all made from alloy steel. The teeth are 8 pitch, stub form. Shafts are of special steel accurately ground. The Main Spindle is of special spindle steel accurately ground. *Timken Roller Bearings* on Main Spindle. Lubrication of the headstock is by splash system, the parts running in a constant oil bath. The oil-tight cover contains no mechanism and is very easily removed. A *friction clutch and brake* are provided, operated by one lever, giving instant control of the spindle. It is impossible to engage two speeds at once.

Apron control for the friction clutch can be supplied if required. We suggest this should be specified on lathes with beds 10 ft. or longer.

A feature of these Lathes is the method of assembling the gearbox and lead screw block by means of securely bolting them to machined pads on the side of bed in which is cut a master slot, a corresponding key in the parts mentioned, locating them exactly in line and interchangeably with all of the machines.

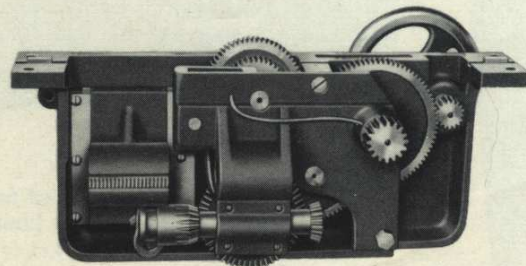
Bed is a heavy casting designed for strength and to maintain alignment. Heavy box girts thoroughly brace the bed. There are no openings in the sides of the bed castings.

MODERN IN DESIGN AND CONSTRUCTION



INTERIOR OF GEAR BOX

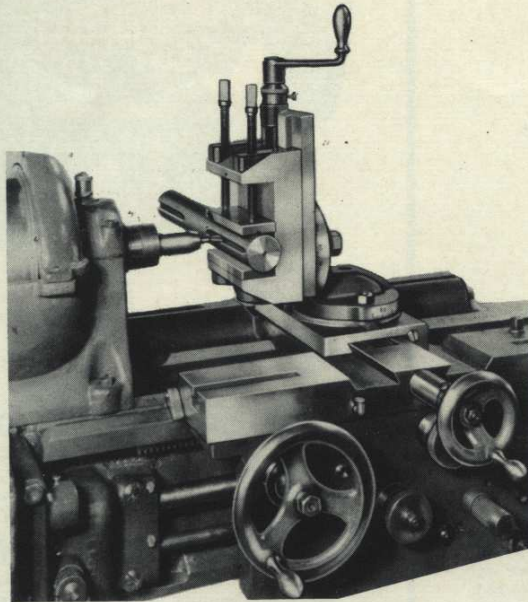
Quick Change Gear Box is a sturdy, compact unit. Gears are all of steel cut from solid; *shafts run in bronze bearings*, each of which is reached by an oil tube. Threads 3 to 46 per inch are obtained through the gear box; and a quadrant accommodates gears to cut special threads. A clutch lever controls the lead screw and feed rod which cannot be engaged together. A neutral position is also provided, disengaging both screw and rod.



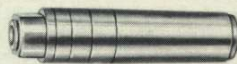
VIEW OF APRON MECHANISM

Apron is of the double wall type, supporting the gear studs at both ends. The gears are of exceptionally liberal dimensions. Oil reservoirs in the wall of apron reach each bearing through special tubing. A separate rod is used for the feed, and lead screw is used only when chasing threads. Interlocking device prevents the engagement of the lead screw nut and the friction feeds at once. A reverse mechanism is provided for both feeds operated by a convenient lever. Thread Indicator included with each Lathe.

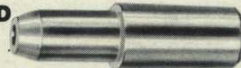
MILLING AND KEYWAY CUTTING ATTACHMENT



One of the most useful of lathe attachments, which will in many instances effectively substitute for a Milling Machine. It fits on cross slide in place of the compound rest. Swivels entirely around horizontally and swivels to 180 degrees in vertical plane, both angles being graduated to 180 degrees. The vertical adjusting screw is graduated in one-thousandths inch. All bearing surfaces hand scraped and all parts are carefully fitted to perform fine, accurate work. The automatic feeds or hand feeds of lathe may, of course, be employed when using the attachment. Furnished with crank handle, vee blocks for holding work, and necessary bolts and nuts. Arbors are not included but furnished as extra.



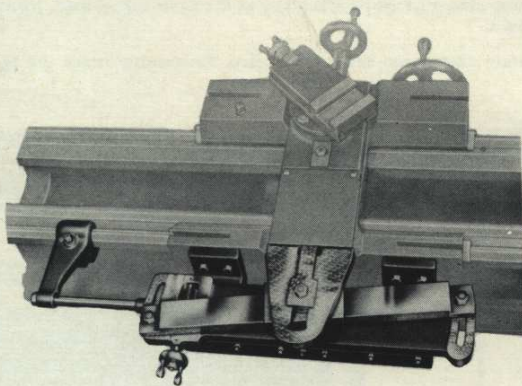
ARBOR FOR STANDARD MILLING CUTTERS



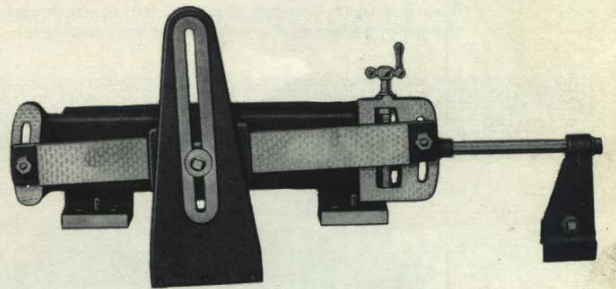
ARBOR FOR WOODRUFF CUTTERS

TAPER ATTACHMENT

TELESCOPIC TYPE



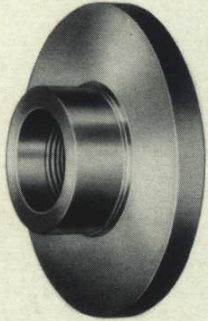
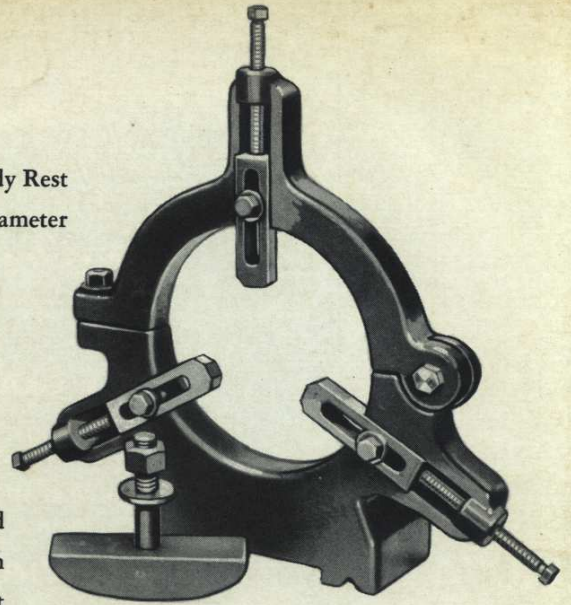
STANDARD TYPE



The Taper Attachment supplied for C. & J. 16-inch Lathes is extra heavy and rigid in design and is capable of the heaviest kind of service. Its substantial construction is very clearly shown in the above cut. The carriages of all C. & J. Lathes are drilled by jig to receive Taper Attachment which may be easily applied at any time. The attachment is graduated on one end in degrees and on other end in inches taper per foot and may be set by means of the adjusting screw for any taper up to 3 inches per foot. (The C. & J. Taper Attachment is also available in the TELESCOPIC SCREW TYPE permitting use of the attachment without disconnecting cross feed screws.)

EXTRA CAPACITY STEADY REST

Will accommodate work from 3 inches to 7½ inches diameter. The Steady Rest is of extra heavy and rigid construction to withstand the strain of large diameter work. Furnished complete with bolt and clamp.

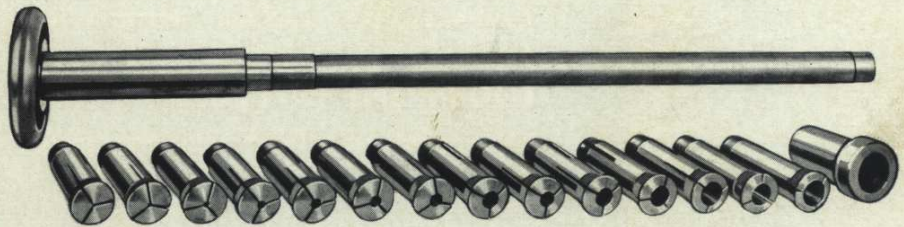


CHUCK PLATE

Semi-finished Chuck Plate is bored and threaded to fit lathe spindle, with enough metal left on diameter of flange to fit chucks having a recess up to 7 inch diameter. Larger diameter chuck plates also available.

DRAW-IN COLLET ATTACHMENT

Draw-in Collet Attachment for C. & J. Lathes of the standard hand wheel type. One collet is included in price of attachment. Extra collets are available ranging from 1/16 inch to 7/8 inch capacity (round).

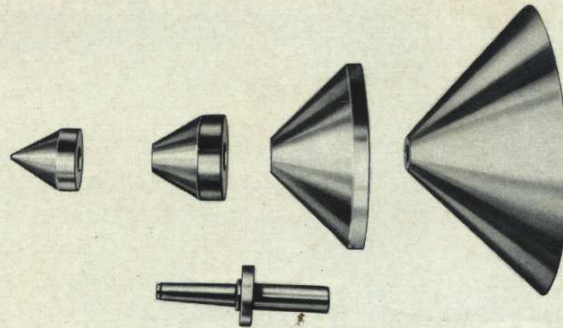


PIPE CENTERS

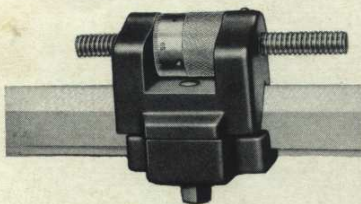
for C. & J. Lathes are furnished in four sizes; capacities as follows:

1/2" to 2½"
 1½" to 3½"
 2" to 8"
 2½" to 12"

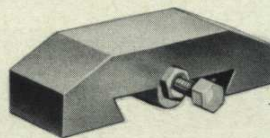
Taper shank is included with each center.



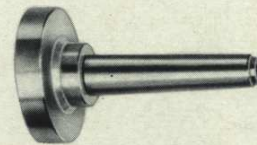
MICROMETER CARRIAGE STOP



ADJUSTABLE THREAD STOP



DRILL PAD



THE CARROLL & JAMIESON MACHINE TOOL COMPANY
 B A T A V I A , O H I O

New

C&J

MODEL GH

16" GEARED HEAD ENGINE LATHE

Featuring

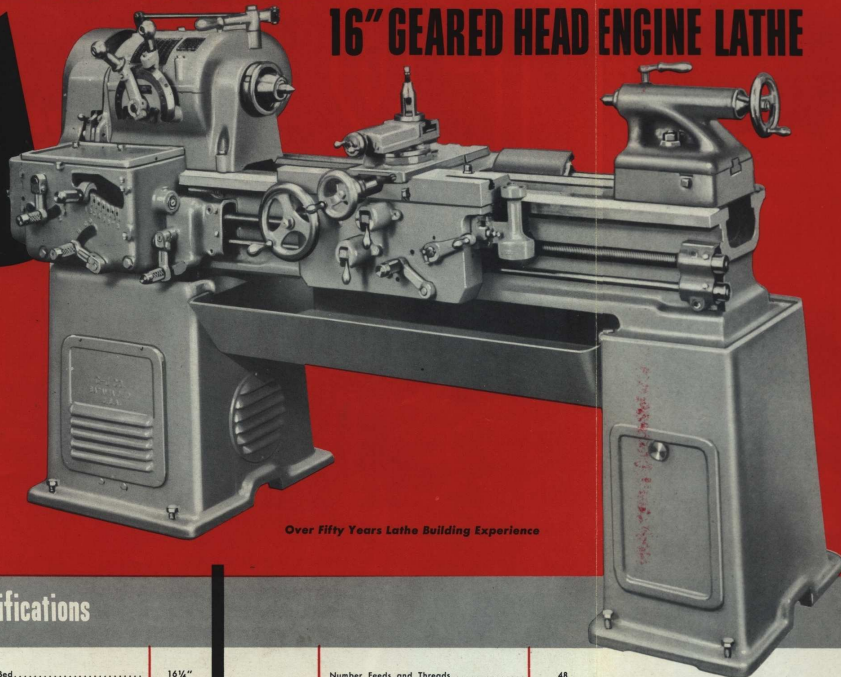
- 12 Geared Spindle Speeds Provide Enormous Pulling Power.
- Choice of Threaded or Taper Key Drive Spindle Nose.
- Heavy Duty Precision Timken Taper Bearings on Spindle.
- Separate Rod for Feed—Lead Screw for Thread Chasing Only.
- Heavy Front and Rear Cabinet Legs Provide Maximum Rigidity.
- Extra Length Carriage—23³/₈ inches.
- Wide Range of Threads and Feeds—48 separate threads 3 to 184 Range.
- Separate Longitudinal & Crossfeed Lever Controls employing Positive Type Clutches.
- Convenient Tool Tray Space at Gear Box—Storage Space in Rear Cabinet.
- Large Crossfeed and Compound Rest Dials.

Over Fifty Years Lathe Building Experience



The **CARROLL—JAMIESON** *Machine Tool Co.*
BATAVIA, OHIO

CARROLL - JAMIESON MODEL GH 16" GEARED HEAD ENGINE LATHE



Over Fifty Years Lathes Building Experience

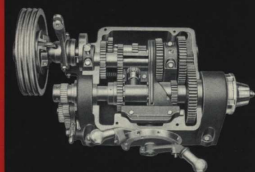
FEATURES OF SUPERIORITY



geared headstock

Geared Headstock is designed for convenience, power and durability. Twelve spindle speeds are obtained through two levers, ranging from 15 to 400 r.p.m. Alloy steel gears are employed. Shafts are of special steel accurately ground. Standard IQ type taper nose spindle runs in extra width Timken Roller Bearings. Lubrication of the headstock is by splash system, the parts running in a constant oil bath. The oil-tight cover contains no mechanism and is easily removed. Friction clutch and brake are provided, operated by one lever, giving instant control of the spindle.

Apron Control for the Friction clutch can be supplied if required. Recommend this be specified on lathes with beds 10 ft. or longer.



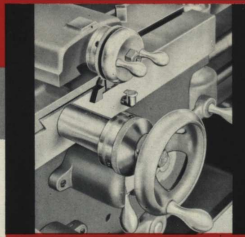
double wall apron

Provided with lever type longitudinal and crossfeed positive clutches. Separate rod used for the feed; lead screw used only for chasing threads. Reverse lever provides instantaneous reverse of longitudinal and crossfeeds.



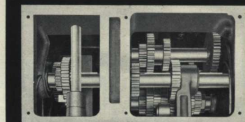
compound & cross-feed dials

Large compound rest and crossfeed dials are provided for convenience of operation. Dials graduated to 250 thousandths.



gearbox

This sturdy, compact unit provides 48 separate threads and feeds. Threads 3 to 184 per inch are available. Shafts run in bronze bearings. A quadrant accommodates gears to cut special threads. A clutch lever controls lead screw and feed rod which cannot be engaged together. Neutral position also provided, disengaging both screw and rod.



specifications

CAPACITY	Swing over Bed.....	16 1/4"	GEAR BOX	Number Feeds and Threads.....	48
	Swing over Carriage.....	11 3/4"		Range of Threads (per inch).....	3-184
	Center Distance, 6 ft. Bed.....	36"		Range of Feeds: Longitudinal.....	.002 to .152
				Range of Feeds: Cross Slide.....	.002 to .136
HEADSTOCK	Spindle Speeds, Number.....	12	CARRIAGE	Length Bearing.....	23 3/4"
	Spindle Speed Range.....	15-600		Cross Slide Travel.....	10 1/4"
	Equipped with Taper Key Drive Spindles.....	LO		Compound Rest Travel.....	3 1/2"
	Spindle Nose.....	1 1/2"	TAILSTOCK	Spindle Diameter.....	1 7/8"
	Spindle Hole Diameter.....	No. 3 Morse		Spindle Travel.....	6"
	Spindle—Size of Center.....	1"		Spindle—Size of Center.....	No. 3 Morse
	Maximum Collet Capacity.....	1"	MOTOR	Horsepower.....	2
	Equipped with Threaded Nose Spindles.....	2 3/4"		Speed.....	1200 rpm
	Spindle Hole Diameter.....	1 1/4"	BED	Lengths 6, 8, 10, 12, or 14 ft.	
	Spindle—Size of Center.....	No. 3 Morse		WEIGHT	16 x 6 (Crated—approx.).....
	Maximum Collet Capacity.....	7/8"			

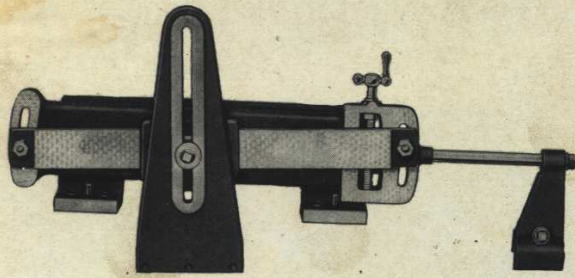
standard equipment

Standard Taper Key Drive Spindle Nose, Spanner Wrench, Small Face Plate, Steady Rest, Centers, Spindle Sleeve, Triple Vee Belts, Pulleys, Tool Post Assembly for 3/8 & 1 1/2" Tool Holder, Thread Indicator, Rear Cabinet Leg with storage shelf, eight Leveling Screws, Adjustable Motor Base, other necessary wrenches.

Note: Threaded Nose Spindle can be furnished in lieu of Taper Key Drive Spindle.

extra equipment available

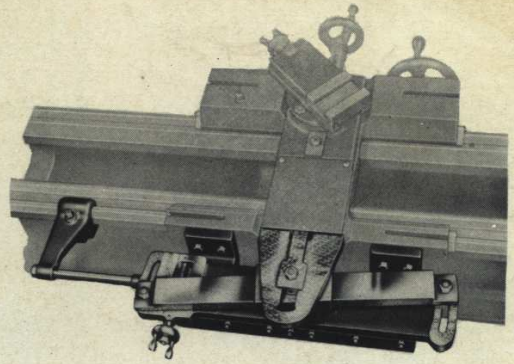
Oil Pan, Electric Coolant Pump, Large Face Plate, Standard or Telescopic Taper Attachment, Milling and Keyway Cutting Attachment, Draw-In Collet Attachment, Pipe Centers, Micrometer Carriage Stop, Thread Cutting Stop, Apron Control for Clutch Pulley, Follow Rest, Extra Capacity Steady Rest and others.



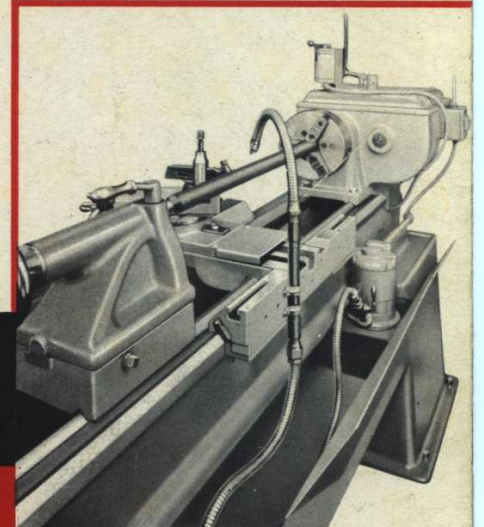
STANDARD TYPE

taper attachments

The Taper Attachment for C. & J. 16-inch Lathes is extra heavy and rigid in design and is capable of the heaviest kind of service. Its substantial construction is very clearly shown in the cuts. The carriages of all C. & J. Lathes are drilled by jig to receive Taper Attachment which may be applied at any time. The attachment is graduated on one end in degrees and on other end in inches taper per foot and may be set by means of the adjusting screw for any taper up to 3 inches per foot. (The C. & J. Taper Attachment is also available in the TELESCOPIC SCREW TYPE permitting use of the attachment without disconnecting cross feed nut.)



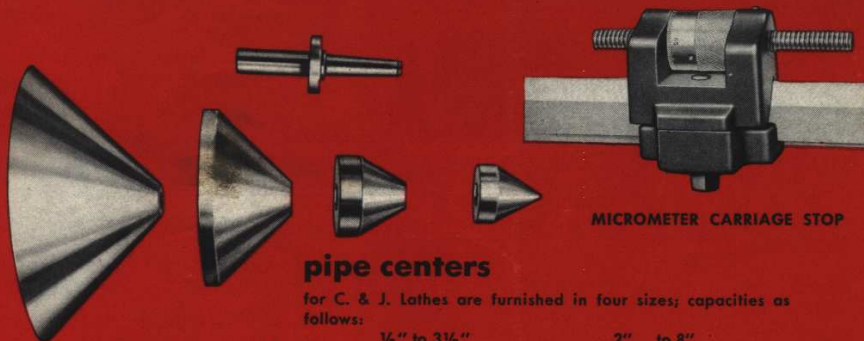
TELESCOPIC TYPE



electric coolant pump

Centrifugal type electric pump is set in screen housing built into oil pan. Unit includes stream adjustment valve and flexible metal hose.

C & J attachments



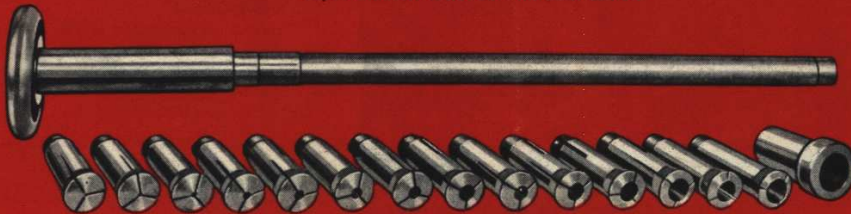
MICROMETER CARRIAGE STOP

pipe centers

for C. & J. Lathes are furnished in four sizes; capacities as follows:

$\frac{1}{2}$ " to $3\frac{1}{2}$ "	2" to 8"
$1\frac{1}{2}$ " to 6"	$2\frac{1}{2}$ " to 12"

Taper shank is included with each center.



draw-in collet attachment

For LO Taper Nose Spindle: 1" Maximum Capacity.
For Threaded Nose Spindle: $\frac{7}{8}$ " Maximum Capacity.

Draw-in Collet Attachment for C & J Lathes of the standard hand wheel type. One collet is included in price of attachment. Extra collets are available from $\frac{1}{8}$ " (round).



extra capacity steady rest

Will accommodate work from 3 inches to $7\frac{1}{2}$ inches diameter. This Steady Rest is of extra heavy and rigid construction to withstand the strain of large diameter work. Furnished complete with bolt and clamp.

BULLETIN No. A56GH

The **CARROLL - JAMIESON** Machine Tool Co.
BATAVIA, OHIO

New

C&J

MODEL VS

16" VARIABLE SPEED

ENGINE and TOOL ROOM LATHE

Featuring

- Standard Taper Key Drive Spindle Nose
- Heavy Duty Precision Timken Taper Bearings on Spindle
- Infinitely Variable Spindle Speeds from 30 to 1500 RPM's
- Separate Rod for Feed—Lead Screw for Thread Chasing only
- Heavy Front and Rear Cabinet Legs Provide Maximum Rigidity
- Extra Length Carriage—23³/₈ inches
- Wide Range of Threads and Feeds—48 separate threads 3 to 184 Range
- Separate Longitudinal and Crossfeed Lever Controls employing Positive Type Clutches
- Convenient Tool Tray Space at Gear Box—Storage Space in Rear Cabinet
- Large Crossfeed and Compound Rest Dials

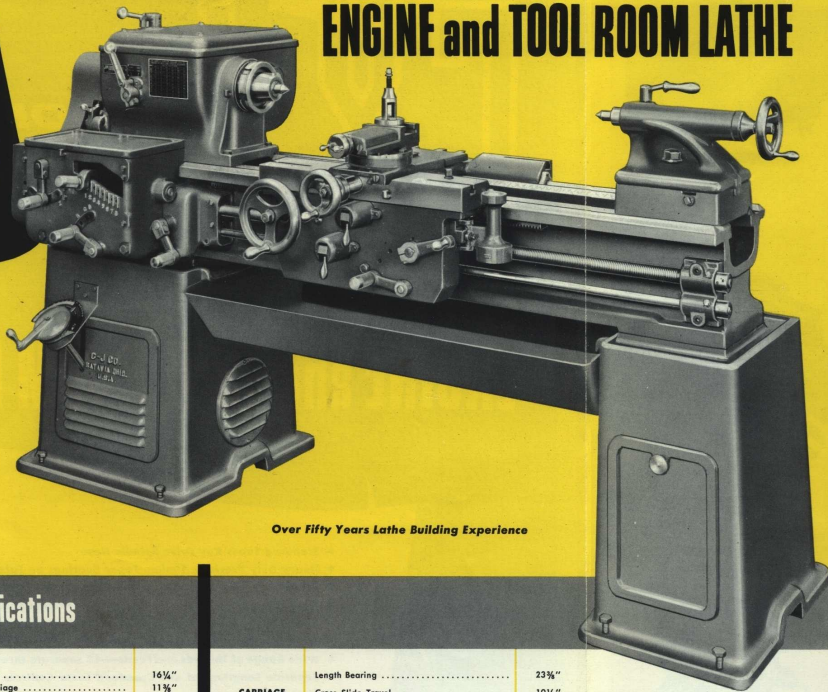


Over Fifty Years Lathe Building Experience

The **CARROLL—JAMIESON** *Machine Tool Co.*
BATAVIA, OHIO

CARROLL - JAMIESON MODEL VS ENGINE and TOOL ROOM LATHE

16" VARIABLE SPEED



Over Fifty Years Lathe Building Experience

specifications

CAPACITY	Swing over Bed	16 1/4"	CARRIAGE	Length Bearing	23 3/4"	
	Swing over Carriage	11 3/4"		Cross Slide Travel	10 1/4"	
	Center Distance, 6 ft. Bed	36"		Compound Rest Travel	3 3/4"	
HEADSTOCK	Spindle Speed Range, Approx.		TAILSTOCK	Spindle Diameter	1 1/4"	
	Geared, Low	30-90		Spindle Travel	6"	
	Geared, High	90-270		Spindle—Size of Center	No. 3 Morse	
	Direct Drive	270-1500				
	Spindle Nose	LO				
GEAR BOX	Spindle Hole Diameter	1 1/4"	BED	Lengths 6, 8, 10, 12 or 14 ft.		
	Spindle—Size of Center	No. 3 Morse		WEIGHT	16 x 6 (Crated—approx.)	2900 lbs.
	Maximum Collet Capacity	1"				
	Number of Feeds and Threads	48				
Range of Threads (per inch)	3-184					
	Range of Feeds; Longitudinal0021 to .152				
	Range of Feeds; Cross slide002 to .136				

standard equipment

Standard Taper Key Drive Spindle Nose, Spinner Wrench, 3-Phase 60 cycle 220/440 Volt, Ball-in-AC Motor with complete Variable Speed Unit including Speed Dial, Small Face Plate, Steady Rest, Centers, Spindle Slaves, Triple Yaw Link Belt Drive Reverse Control Unit, Tool Rest Assembly for 3/4 x 1 1/2 Tool Holder, Thread Indicator, Rear Cabinet Leg with storage shelf, eight leveling screws, Adjustable Motor Base and necessary wrenches.

extra equipment available

Oil Pan, Electric Coolant Pump, Large Face Plate, Stand-off or Telescopic Taper Attachment, Milling and Keyway Cutting Attachment, Drop-In Collet Attachment, Fine Centers, Micrometer Carriage Stop, Thread Cutting Stop, Axial Control for start, stop and reverse of spindle, Full-Tow Rest, Extra Capacity Steady Rest and others.

FEATURES OF SUPERIORITY

of the
C&J
VARIABLE SPEED LATHE

headstock

Spindle is Standard LO Type Taper Nose made of hardened alloy steel mounted in heavy duty precision Timken taper bearings. Triple vee link belts provide tremendous pulling power directly to spindle for both production and toolroom requirements. Low geared speeds available for heavier turning operations.

double wall apron

Provided with lever type longitudinal and crossfeed positive clutches. Separate rod used for the feed lead screw used only for chasing threads. Reverse lever provides instantaneous reverse of longitudinal and crossfeeds.

compound and cross-feed dials

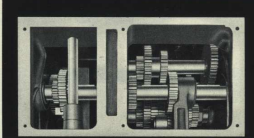
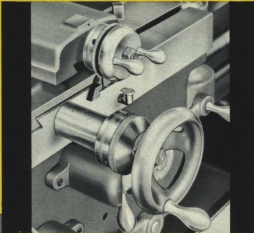
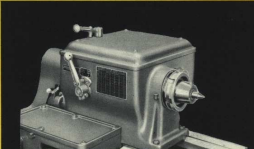
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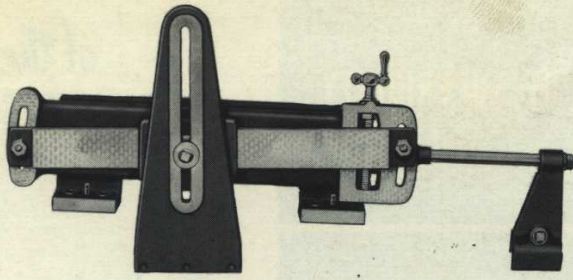
variable speed unit

The C-J Model "VS" is equipped with complete Variable Speed Unit. Infinite spindle speeds from 270 to 1500 RPM's in Geared Drive and 30 to 270 RPM's in Direct Drive are available. Large speed indicator dial located at control handle. Full range of speeds in either Low Geared, High Geared or Direct Drive are obtained without stopping spindle.

gearbox

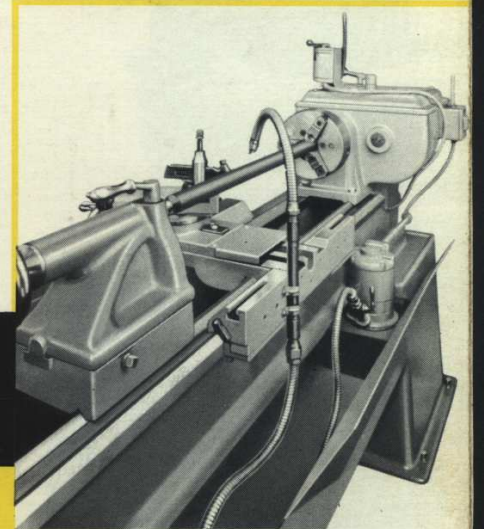
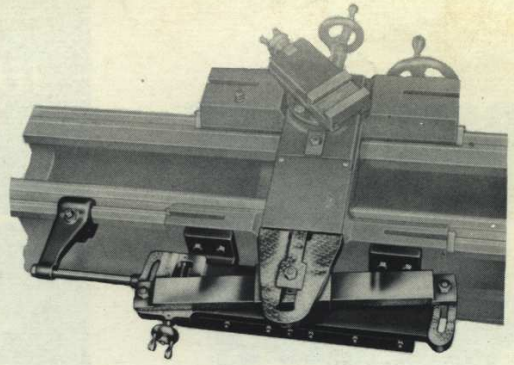
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taper attachments

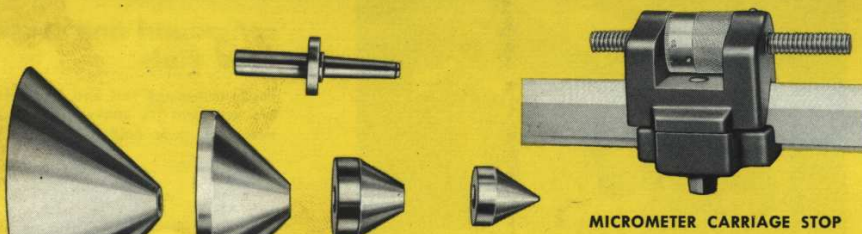
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electric coolant pump

Centrifugal type electric pump is set in screen housing built into oil pan. Unit includes stream adjustment valve and flexible metal hose.

C&J attachments



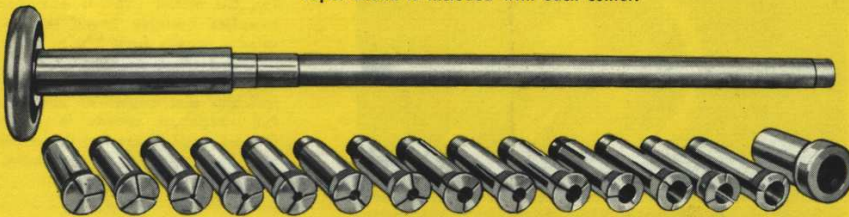
MICROMETER CARRIAGE STOP

pipe centers

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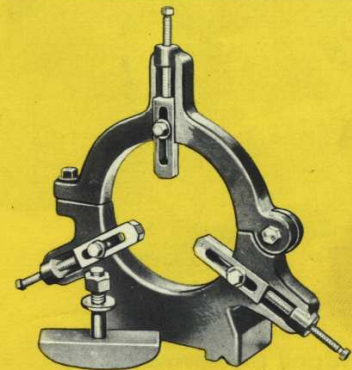
$\frac{1}{2}$ " to $3\frac{1}{2}$ "	2" to 8"
$1\frac{1}{2}$ " to 6"	$2\frac{1}{2}$ " to 12"

Taper shank is included with each center.



draw-in collet attachment

Draw-in Collet Attachment for C. & J. Lathes of the standard hand wheel type. One collet is included in price of attachment.

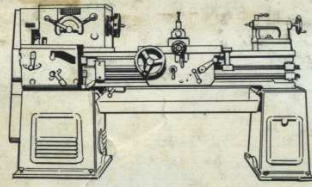


extra capacity steady rest

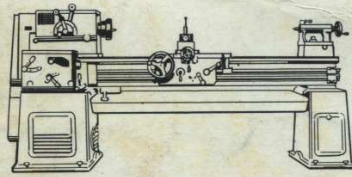
Will accommodate work from 3 inches to $7\frac{1}{2}$ inches diameter. This Steady Rest is of extra heavy and rigid construction to withstand the strain of large diameter work. Furnished complete with bolt and clamp.

BULLETIN No. A56VS

The **CARROLL - JAMIESON** Machine Tool Co.
BATAVIA, OHIO



MASTER MODEL GH 16"



MASTER MODEL GH 18"

THE SIGN OF
A GOOD SHOP

NEW
GENERAL PURPOSE
ENGINE LATHES

BY.....



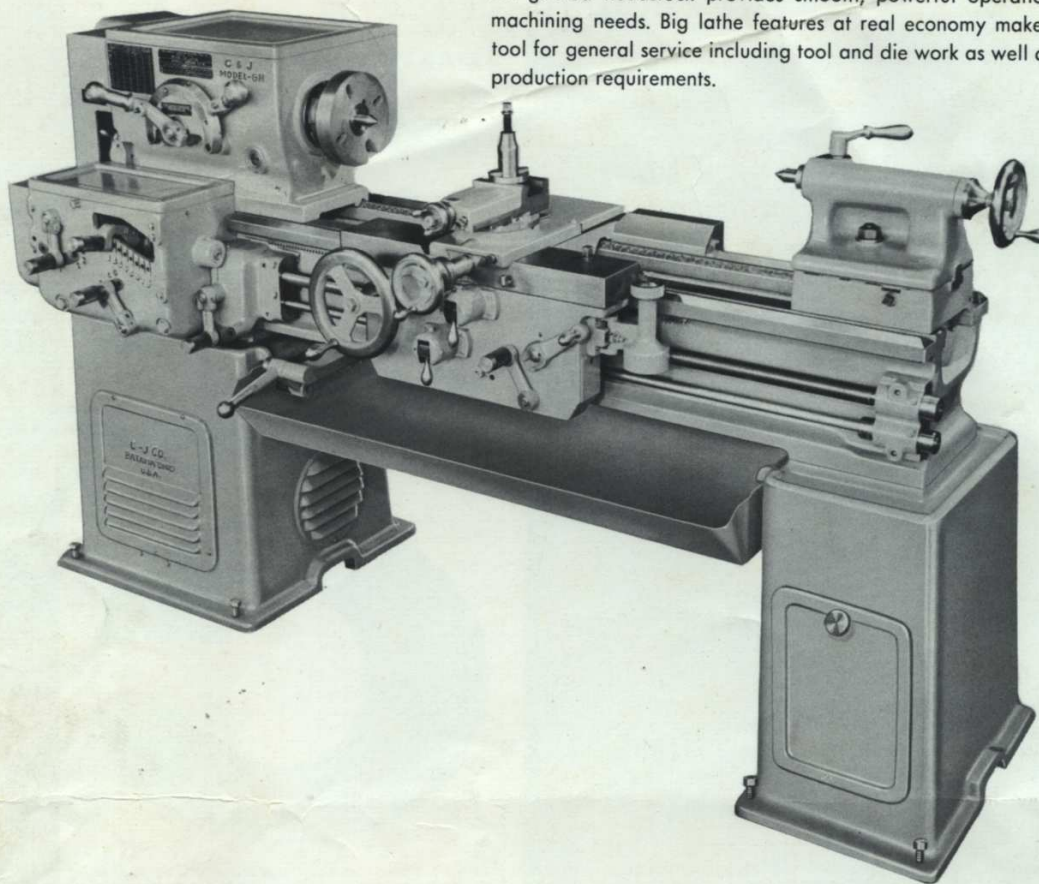
EXCLUSIVE AGENT
Cincinnati Machinery Co.
3900 Kellogg Avenue
Cincinnati 26, Ohio

THE  CARROLL-JAMIESON MACHINE TOOL CO.
BATAVIA, OHIO



MASTER MODEL GH 16"

All geared headstock provides smooth, powerful operation for modern machining needs. Big lathe features at real economy make this the ideal tool for general service including tool and die work as well as innumerable production requirements.



THIS IS THE NEW



LII

The C & J Master Model lathe has real built-in productivity to handle a multitude of turning and allied machining applications in your shop. It is extremely rugged for a medium duty lathe and can boast of many high quality features that are found only on higher priced machine tools.

Produced by master craftsmen, this lathe has long been recognized by top machinists and tool room personnel as the finest machine

tool value of its type in the world. "Versatile, easy to use, and rugged", are what they say about it . . . yet, economical, too. Built into all C & J Master Model lathes is reliability plus high degree of accuracy in operation. Select the size most suitable for your turning requirements from the 16" or 18" swing, short, medium or long bed lengths.

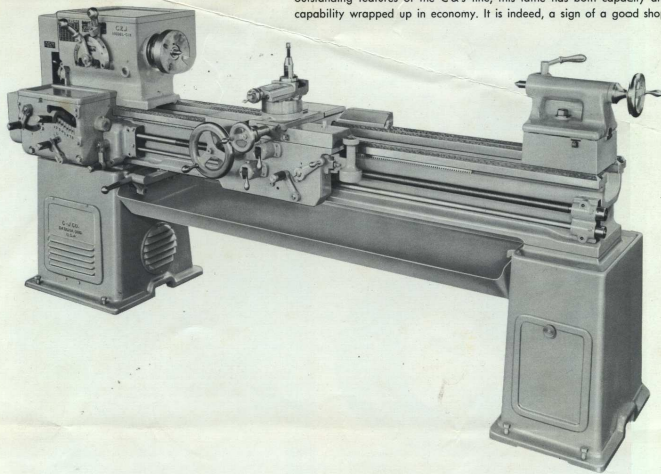
ALL C & J MASTER MODEL LATHES HAVE THESE OUTSTANDING ADVANTAGES

1. 5 h.p. motors at 1800 RPM
2. 12 geared spindle speeds provide enormous pulling power
3. Heavy duty, precision Timken taper bearings on spindle
4. Choice of threaded or LO taper key drive spindle nose
5. Separate rod for feed—lead screw for thread chasing only
6. Maximum rigidity through heavy, cast front and rear cabinet legs
7. Extra length carriage—23³/₈"
8. Wide range of threads and feeds—48 separate threads 3 to 184 range
9. Separate longitudinal and crossfeed lever controls employ positive type clutches
10. Friction clutch and brake provide instant control of the spindle
11. Convenient tool tray space on headstock and gear box—storage space in rear cabinet
12. Large crossfeed and compound rest dials



MASTER MODEL GH 18"

The lathe with additional swing at little added cost. Incorporating all the outstanding features of the C & J line, this lathe has both capacity and capability wrapped up in economy. It is indeed, a sign of a good shop.



MASTER MODEL GH LONG BED LATHE

Available in both 16" and 18" swing with center distances to 132". The ideal unit for textile mills, paper mills, maintenance shops, etc. Apron control handle for spindle control furnished on 10 ft., 12 ft., and 14 ft. beds. Center leg furnished on 12 ft. and 14 ft. bed lengths. A precision-built tool designed to do precision work.



LINE OF GEARED HEAD ENGINE LATHES . . . MASTER MODELS

SPECIFICATIONS FOR ALL GH MODELS

CAPACITY	HEADSTOCK	HEADSTOCK (con't)	GEAR BOX (con't)	BED
Swing over bed, 16" lathe	Spindle speed, number	Rear spindle bearing, Timken, O. D.	Lead screw, diameter	Lengths—6, 8, 10, 12 or 14 ft.
Swing over cross slide, 16" lathe	Spindle speed, range rpm	Radial load at 100 rpm, pounds	Threads per inch, Arme R. H.	Width
Swing over bed, 18" lathe	Equipped with taper key drive spindles	Thrust load at 100 rpm, pounds		Depth
Swing over cross slide, 18" lathe	Spindle nose	Headstock length on bed	CARRIAGE	TAPER ATTACHMENT
Center Distance, 6 ft. bed, minimum	Spindle hole diameter		Length bearing	Maximum taper per foot
Increases in increments of 24"	Center—Morse		Bridge width	Turns at one setting
Center Distance, 14 ft. bed, maximum	Center—Morse	GEAR BOX	Cross slide travel	MOTOR
Size of tool holder	Maximum collet capacity	Feeds and threads, number	Compound rest travel	Horsepower
Face plate, large diameter	Equipped with threaded nose spindle:	Feeds, range, longitudinal		Speed, rpm
Face plate, small diameter	Spindle nose diameter	Feeds, range, cross feed	TAILSTOCK	WEIGHT
Steady rest, standard, capacity	Spindle hole diameter	Threads, per inch	Spindle diameter	Weight crated, 16 x 6, approx. pounds
Steady rest, extra capacity	Center—Morse	3, 3 1/4, 3 1/2, 4, 4 1/2, 5, 5 1/2, 5 3/4, 6, 6 1/2, 7, 8, 9, 10,	Spindle travel	Weight crated, 18 x 6, approx. pounds
	Radial load at 100 rpm, pounds	11, 11 1/2, 12, 13, 14, 16, 18, 20, 22, 23, 24, 26, 28, 32, 36, 40, 44, 46, 48, 52, 56, 64, 72, 80, 88, 92, 96, 104, 112, 128, 144, 160, 176 and 184.	Set over for taper turning, right or left	Weight crated, each additional 2 ft., pounds
	Thrust load at 100 rpm, pounds		Center—Morse	

MOTOR DRIVE ARRANGEMENT

End view with guards and cabinet doors removed shows convenient mounting of motor in cabinet leg with multiple vee belt drive to headstock vee pulley. Easy adjustment of belt tension provided. 5 h.p. motor employed with this arrangement transmits full power required, quietly, smoothly.

GEARED HEADSTOCK

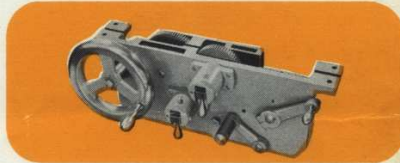
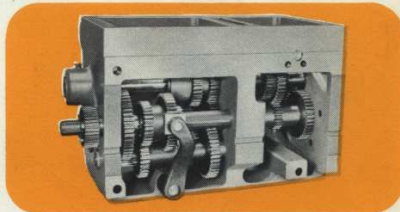
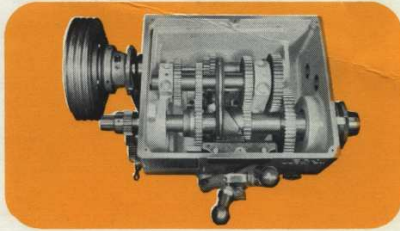
All geared headstock designed for convenience, power and durability. Twelve spindle speeds, ranging from 20 to 900 r.p.m., are obtained through two speed handles. Heat treated alloy steel gears are employed. Shafts are of special steel accurately ground. Standard LO type taper nose spindle is mounted in precision Timken taper roller bearings. Lubrication of the headstock is by splash system, the parts running in constant oil bath. Window type oil indicator provides oil level check. Oil tight cover is easily removed. New, improved friction type clutch and brake affords instantaneous spindle control allowing motor to run continuously. Clutch and brake control handle conveniently positioned. Apron control handle provided in addition on 10 ft., 12 ft. and 14 ft. bed lathes permitting spindle control from apron at any position along bed.

QUICK CHANGE GEAR BOX

The C & J gear box is a sturdy, compact unit providing 48 separate threads and feeds. Threads 3 to 184 per inch are available through the gear box levers. A quadrant accommodates gears to cut special threads. A clutch lever controls lead screw and feed rod which cannot be engaged together. Neutral position also provided, disengaging both screw and rod.

DOUBLE WALL APRON

This is a double wall type apron employing all steel and ductile gearing. Separate lever type longfeed and crossfeed positive clutches are provided. Reverse mechanism for both feeds is operated by a convenient lever. A separate rod is used for the feed, lead screw is used only for thread chasing. Interlocking device prevents the engagement of the lead screw nut and clutch feeds simultaneously. Feed rod is equipped with spring loaded positive type safety clutch to provide feed release under overload.



WITH THESE SUPERIOR FEATURES

that mean
precision
and performance

STANDARD EQUIPMENT

Small face plate, steady rest, centers, spindle sleeve, triple vee belts, pulleys, friction clutch and brake, tool post assembly for $\frac{5}{8} \times 1\frac{3}{8}$ holder, thread indicator, front and rear cabinet bases, leveling screws, adjustable motor base, LO taper nose spindle*, necessary wrenches. *Threaded nose spindle can be furnished in lieu of taper nose spindle.

EXTRA EQUIPMENT

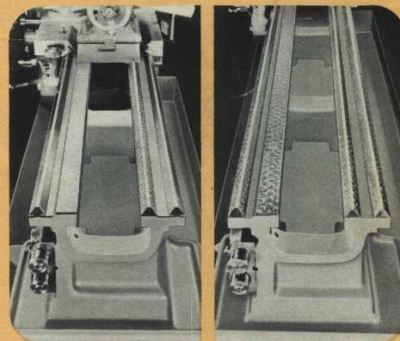
Chip pan, electric coolant pump assembly, large face plate, standard or telescopic taper attachment, milling and keyway cutting attachment, draw-in collet attachment, pipe centers, micrometer carriage stop, thread cutting stop, follow rest, extra capacity steady rest, turret tool post and others.

STANDARD BED CASTING

This is a heavy, rigid, cross ribbed bed cast of first grade gray iron semi-steel metal with close grained composition. Both front and rear carriage vee ways are provided as well as inner tailstock vee.

BED WITH HARDENED REPLACEABLE CARRIAGE VEE WAYS

The standard bed can be furnished with inserted, ground and hardened carriage vee ways on any bed length at extra cost. These vee ways are replaceable and have a 64-66 Rockwell C hardness for lifetime wear.



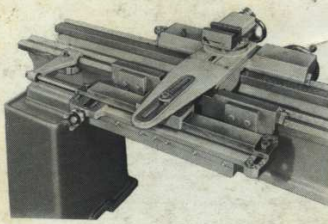
HARDENED VEE WAYS

STANDARD VEE WAYS

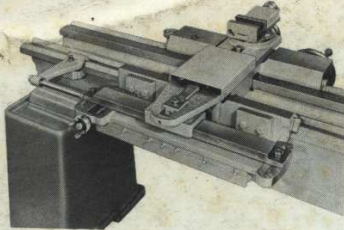


ATTACHMENTS FOR LATHES

TAPER ATTACHMENTS

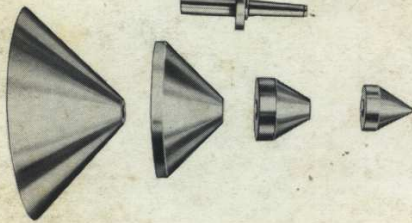


STANDARD TYPE



TELESCOPIC TYPE

The taper attachment for C & J lathes is extra heavy and rigid in design and is capable of the heaviest kind of service. The carriages of all C & J lathes are drilled by jig to receive taper attachment which may be installed at any time. The attachment is graduated on one end in degrees and on opposite end in inches taper per foot. It may be set by means of the adjusting screw for any taper up to 4 inches per foot and turns $15\frac{1}{2}''$ at one setting. Two types of taper attachments are available, the standard and the telescopic screw type. The telescopic type permits use of the attachment without disconnecting cross feed nut.



PIPE CENTERS

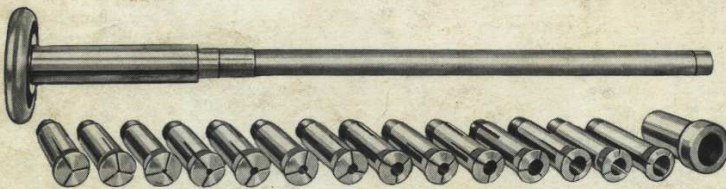
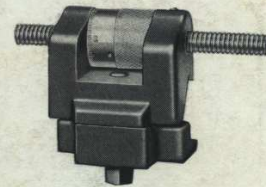
Furnished in four sizes in following capacities:
 $\frac{1}{2}''$ to $3\frac{1}{2}''$ $2''$ to $8''$
 $1\frac{1}{2}''$ to $6''$ $2\frac{1}{2}''$ to $12''$

Taper shank is included with each center.

TURRET TOOL POST



MICROMETER CARRIAGE STOP



DRAW IN COLLET ATTACHMENT

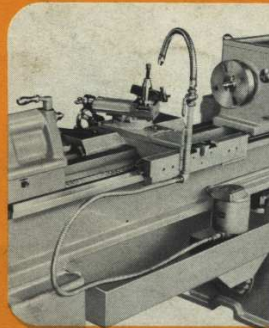
This is the standard hand wheel type collet attachment. One collet is included in price of attachment. For LO taper nose spindle: $1''$ maximum capacity. For threaded nose spindle: $\frac{7}{8}''$ maximum capacity.

EXTRA CAPACITY STEADY REST



With standard jaws will accommodate work from 3 inches to $7\frac{1}{2}$ inches diameter. This steady rest is of Extra Heavy and rigid construction to withstand the strain of large diameter work. Furnished complete with bolt and clamp.

This steady rest is also available with jaws fitted with special rollers. The capacity of the roller type steady rest is 2 inches to 6 inches.



ELECTRIC COOLANT PUMP UNIT

Centrifugal type electric pump is shown mounted in sump type oil pan. The coolant assembly unit includes flexible hose, stream adjustment valve, water tight pipe connection for conduit, switch for pump mounted at front of lathe.



THE **CARROLL-JAMIESON MACHINE TOOL CO.**
 BATAVIA, OHIO

FOR OLDER GEARED HD. MODELS ONLY

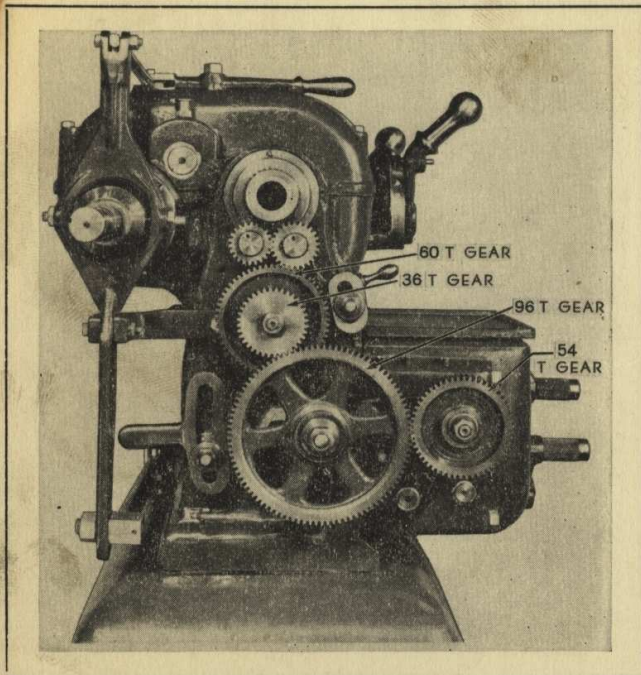


FIG. 1

A Set Up For Extra Fine Feed

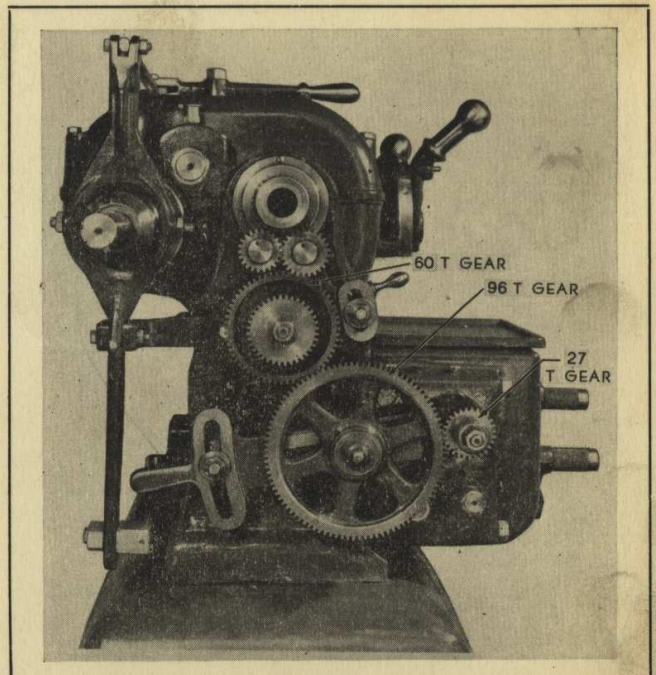


FIG. 2

Set Up For Thread Chasing Per Index

Views Of End Gear Train On Carroll-Jamieson Geared Head Lathe

Carroll-Jamieson Machine Tool Co.

Batavia, Ohio

(reverse side blank)

Prices Effective May 21, 1956

PRICE LIST

C & J Model GH Engine Lathe

The Carroll-Jamieson Machine Tool Co.

Batavia, Ohio, U.S.A.

C & J 12-Speed GEARED HEAD Engine Lathe

Arranged for Motor Drive in cabinet leg, triple Vee Belt Drive from motor to drive shaft.
TIMKEN ROLLER BEARINGS ON MAIN SPINDLE. Price does not include motor.

Regular Equipment Included In Basic Price

Standard Taper Key Drive Spindle Nose, Spanner Wrench, Small Face Plate, Steady Rest, Centers, Spindle Sleeve, Triple Vee Belts, Pulleys, Tool Post Assembly, Thread Indicator, Rear Cabinet Leg with shelf, eight Leveling Screws, Adjustable Motor Base, other wrenches. In addition Center Leg and Lead Screw Support included as regular equipment on 12-ft. and 14-ft. beds.

Note: Threaded Nose Spindle furnished in lieu of Taper Key Drive Spindle — Deduct \$50.00 from Base Price.

Crated for Shipment F.O.B. Batavia, Ohio

Rated Size	16"	16"	16"	16"	16"
Actual Swing	16-1/4"	16-1/4"	16-1/4"	16-1/4"	16-1/4"
Bed Length	6 ft.	8 ft.	10 ft.	12 ft.	14 ft.
Distance Between Centers	36"	60"	84"	108"	132"
Price	\$3240	\$3450	\$3705	\$3980	\$4225
Oil Pan, Plain	\$90	\$110	\$130	\$154	\$175
Oil Pan, with Sump for Coolant Pump	\$115	\$135	\$155	\$179	\$200
Domestic Shipping Wt. lbs. (Approximate)	2900	3100	3300	3500	3700

RAISED LATHE — Raising 16" C & J Lathe in sand to swing 18-1/4" \$290

Raising 16" C & J Lathe on special blocks to swing 25" \$500

Recommend addition of Apron Control for Clutch Pulley on 10 ft., 12 ft. and 14 ft. Lathes. See reverse side for price.

Prices of Attachments and Extras

Arbor for Milling Cutters (With Collars)	\$ 30.00
Arbor for Woodruff Type Cutters	17.00
Apron Control for Clutch Pulley	130.00
Centers-Round, for Head or Tailstock, each	8.00
Centers, Pipe, ½-inch to 3½-inch capacity	25.00
Centers, Pipe, 1½-inch to 6-inch capacity	32.00
Centers, Pipe, 2 inch to 8 inch capacity	47.00
Centers, Pipe, 2-1/2 inch to 12 inch capacity	60.00
Chuck Plate Fitted to Chuck and Lathe Spindle (For Threaded Nose Spindle only)	25.00
Chuck Plate, Semi-Finished, Fitted to Spindle (For Threaded Nose Spindle only)	18.00
Collets for use with LO Type Taper Key Drive Spindle. Sizes 1/8-inch to 1-inch capacity, round, each	7.00
Collets for use with Threaded Nose Spindle. Sizes 1/8-inch to 7/8-inch capacity, round, each	10.00
Coolant Pump, 1/8-hp 3 ph 60 cy 220/440V, including Flexible hose, valve and nozzle	140.00
Draw-in Attachment for use with LO Type Taper Key Drive Spindle only (Including One Round Collet)	90.00
Draw-in Attachment for use with Threaded Nose Spindle Only (Including One Round Collet)	80.00
Drill Pad	15.00
Face Plate, Large for LO Type Taper Key Drive Spindle	60.00
Face Plate, Large for Threaded Nose Spindle.....	35.00
Follow Rest	30.00
Micrometer Carriage Stop	45.00
Milling and Keyway Cutting Attachment Without Arbor	180.00
Steady Rest Extra Size Capacity 3 inches to 7-1/2 inches	95.00
Taper Attachment, Standard Type	240.00
Taper Attachment, Telescopic Screw Type	295.00
Thread Cutting Stop, Adjustable	15.00

Prices effective October 15, 1956

DEALERS RESALE DISCOUNT 10%

THE CARROLL JAMIESON MACHINE TOOL CO
BATAVIA, OHIO

ELECTRICAL EQUIPMENT FOR C & J MODEL "GH" LATHES

MOTORS: 2 hp 3 ph 60 cy 1200 rpm 220/440 volt \$128.00
3 hp 3 ph 60 cy 1200 rpm 220/440 volt 153.00

CONTROLS:

Magnetic Control for 2 hp 3 ph 60 cy
220/440 volt operation with start and stop push button sta 38.00
Magnetic Control for 3 hp 3 ph 60 cy
220/440 volt operation with start and stop push button sta 44.00
Reversing Magnetic Control for 2 hp 3 ph
60 cy 220/440 volt operation with start,
stop and reverse push button station 76.00
Reversing Magnetic Control for 3 hp 3 ph
60 cy 220/440 volt operation with start,
stop and reverse push button station 87.00
Drum reverse control for 2 or 3 ph
60 cy 220/440 volt operation 14.00
Snap Switch (Off/On) for coolant pump on Model "GH" or
Model "VS" Lathes 11.00
Charge for wiring motor and controls 35.00

CHUCKS for C & J Model "GH" and model "VS" Lathes:

4 Jaw Independent LO spindle type (semi-steel bodies)
8" 182.00
10" 224.00
12" 256.00
15" 298.00

3 Jaw Self-Centering Chucks LO spindle type (semi-steel)-

6" 198.00
8" 248.00
10" 284.00
12" 322.00
15" 426.00

(Specify 3 jaw chucks with two sets jaws or two piece reversible jaws).

Prices for threaded nose spindle type chucks will be furnished upon request.

Prices Effective March 15, 1957

PRICE LIST

C & J Model VS Engine and Tool Room Lathe

The Carroll-Jamieson Machine Tool Co.

Batavia, Ohio, U.S.A.

C & J VARIABLE SPEED Engine and Tool Room Lathe. Equipped with complete Variable Speed Unit INCLUDING MOTOR installed in cabinet leg. Triple vee link belt drive direct to spindle. LO-type taper nose spindle mounted in heavy duty precision TIMKEN TAPER BEARINGS. Price includes 2 H. P. 3-phase 60-cycle 220/440 volt motor and drum reverse control (does not include wiring).

Regular Equipment Included In Basic Price

Standard Taper Key Drive Spindle Nose, Spanner Wrench, 2 H. P. 3-phase 60-cycle 220/440 Volt Built-in AC Motor with complete variable speed unit including Speed Dial, Small Face Plate, Steady Rest, Centers, Spindle Sleeve, Triple Vee Link Belts, Drum Reverse Control Unit, Tool Post Assembly for 5/8x1-3/8 Tool Holder, Thread Indicator, Rear Cabinet Leg with storage shelf, eight Leveling Screws and other wrenches.

In addition Center Leg and Lead Screw Support included as regular equipment on 12-ft. and 14-ft. beds.

Crated for Shipment F.O.B. Batavia, Ohio

Rated Size	16"	16"	16"	16"	16"
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Bed Length	6 ft.	8 ft.	10 ft.	12 ft.	14 ft.
Distance Between Centers	36"	60"	84"	108"	132"
Price	\$3115	\$3305	\$3560	\$3825	\$4025
Oil Pan, Plain	\$90	\$110	\$130	\$154	\$175
Oil Pan, with Sump for Coolant Pump	\$115	\$135	\$155	\$179	\$200
Domestic Shipping Wt. lbs. (Approximate)	2900	3100	3300	3500	3700

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Coolant Pump, 1/8-hp 3 ph 60 cy 220/440V, including Flexible hose, valve and nozzle	140.00
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Drill Pad	15.00
Face Plate, Large for LO Type Taper Key Drive Spindle	60.00
Follow Rest	30.00
Micrometer Carriage Stop	45.00
Milling and Keyway Cutting Attachment Without Arbor	180.00
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Taper Attachment, Standard Type	240.00
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