

Brassfinishers' Lathes
AND
Open Spindle Capstan Lathes

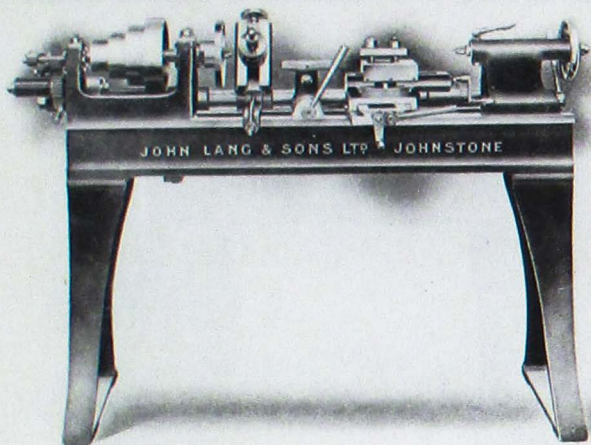
Manufactured by

JOHN LANG & SONS LTD
JOHNSTONE, near GLASGOW

ASSOCIATED BRITISH MACHINE TOOL MAKERS Ltd.
17, GROSVENOR GARDENS, LONDON, S.W. 1.



7½in. Centre Brassfinisher's Screwing Lathe



No. 4027

THE Lathe illustrated, designed for the rapid production of plain and screwed brass work in an economical manner, possesses many advantages over the ordinary hand Lathe.

The Fast Headstock is single geared, with large cone, which is turned inside and balanced; the spindle is of hard crucible steel, accurately ground cylindrical. **The Loose Headstock** is gripped to bed by eccentric and handle; it has substantial friction grip for binding spindle, and small oil-holder with pin for oiling centre. **The Compound Slide Rest** has swivel slide for conical turning; it has eccentric grip and is easily moved along bed. **The Hand Rest** is of steel and has eccentric grip like other movable parts. **The Counter Gear** is arranged so that by one movement of stopping handle the belt is moved on to slack pulley, and a friction brake applied to stop Lathe quickly.

The Screw Chasing Apparatus consists of a folding-over tool slide, which swings on a strong shaft at back of bed; at the end of this shaft is fixed a lever carrying a brass nut; when the tool slide is brought into position this nut engages with a hub or short guide screw at end of headstock, which gives the correct movement to tool for screwing the number of threads required; an adjustable stop is provided for securing correct diameter of screw when cut; the tool can be raised or lowered slightly by screw for adjustment. When screwing tool is in operation, and has traversed the distance to be screwed, the slide is raised by handle, withdrawing the nut from hub and tool from work at same time; a weight arrangement then causes movement of shaft, with tool slide and nut, back to position for starting another cut, and so on until screw is finished.

Additional Parts supplied.—One improved two-jaw cast-steel chuck, 6½in. diameter, of strong make to stand constant use; one hand rest with eccentric grip, as shown in illustration, six hubs 4½in. long, for screwing 10, 11, 12, 14, 16, and 18 threads per inch, unless desired otherwise; counter gear complete, including improved adjustable self-oiling hanger bearings; set of wrought-iron case-hardened spanners.

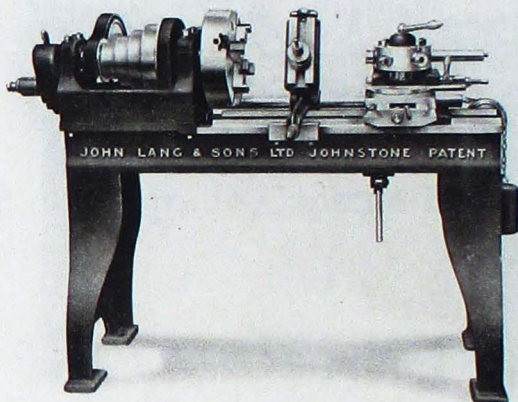
Length of bed	5ft.	Approx. finished weight	1288 lbs.
Diameter of spindle nose	1½in.	Approx. gross weight, packed for shipment	1680 lbs.
Swivelling slide in length	12in.	Approx. shipping measurement	55 cu. ft.
Swivelling slide in travel	7½in.		
Diam. of four-step cone pulley, largest	9in.	Lathe as illustrated	Code No. 0950
Diam. of do., do., smallest	3½in.	Extras—	
Width of step	2½in.	Headstock with hollow spindle (1½in. hole) and parallel gun-metal bearings	01
Speed of countershaft, revs. per min.	300	Double geared headstock	02
Diam. and width of countershaft pulleys	8in. x 2½in.		
Floor space required	5ft. 9 x 2ft. 9		

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7½ in. Centre Brassfinisher's Turret Lathe



No. 4028

THE illustration shows a type of Lathe for the rapid production of brass work of plain or intricate form, in large or small quantities, and we have embodied the experience of many years in this standard design.

The Fasthead is of our double-gear type, arranged to admit large cone and wheels. The gearing is correctly proportioned to give an equal percentage of variation at each change of speed. **The Spindle** is hollow, and is made of crucible cast steel accurately ground cylindrical and running in parallel gun-metal bearings of large diameter.

The Turret Slide Rest can be easily moved along bed by hand and secured in position by eccentric and lever. Under slide has cross movement for surfacing, and stop for bringing turret central with running spindle. The turret is carried on a swivel slide, which may be angled for producing taper work.

The Screw Chasing Apparatus consists of a folding-over tool slide, which swings on a strong shaft at the back of bed; at the end of this shaft is fixed a lever carrying a brass nut; when the tool slide is brought into position this nut engages with a hub or short guide screw at end of headstock, which gives the correct movement to tool for screwing the number of threads required; an adjustable stop is provided for securing correct diameter of screw when cut; the tool can be raised or lowered slightly by screw for adjustment. When screwing tool is in operation, and has traversed the distance to be screwed, the slide is raised by handle, withdrawing the nut from hub and tool from work at same time.

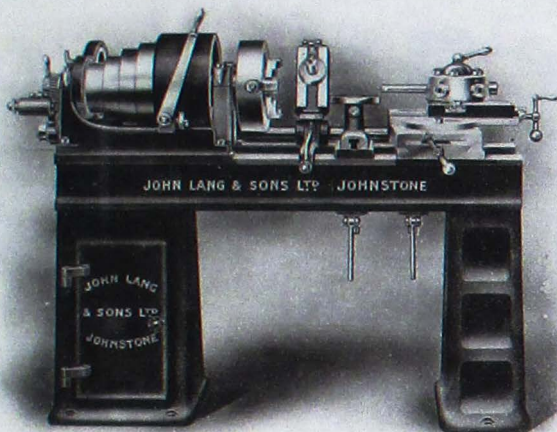
Additional Parts supplied.—One improved four-jaw expanding chuck, 12in. diameter; six hubs 4½in. long for screwing 10, 11, 12, 14, 18, and 18 threads per inch, unless desired otherwise; six tool-holders for turret; reversing counter gear complete, including improved adjustable self-oiling hanger bearings; set of wrought-iron case-hardened screw-keys.

Length of bed	... .. 4ft.6in.	Approx. floor space required	... .. 5ft.9in. x 2ft.6in.
Diam. of hole through spindle	... .. 1½in.	.. finished weight	... .. 1288 lbs.
Turret holes (6) diam.	... .. 1½in.	.. weight packed for shipment	... .. 1680 lbs.
Diam. and width of countershaft pulleys	... .. 8in. x 2in.	.. shipping measurement	... .. 55 cu. ft.
Speed of countershaft, revs. per minute	... .. 300	Code No.	... .. 0951

JOHN LANG & SONS LTD.

JOHNSTONE, near GLASGOW

Sin. Centre Brassfinisher's Turret Lathe



No. 4029

THE illustration shows our latest type of Lathe for the rapid production of Brass Work of plain or intricate form; in large or small quantities, and we have embodied the experience of many years in this standard design.

The Headstock is of the double-gear friction type, engaging either single or double gear by movement of a handle without stopping Lathe. The friction clutch is of an entirely new design, substantial in construction, efficient in duty, and requiring very little attention or adjustment. When Lathe is running on cone speed the back gears can be disengaged by eccentric if desired. **The spindle** is hollow, and is made of Crucible Cast Steel accurately ground cylindrical. It runs in parallel gun-metal bearings of large diameter.

The Turret Slide Rest can be easily moved along bed by hand and secured in position by eccentric and lever. Under slide has cross movement for surfacing, and stop for bringing turret central with running spindle. The turret has six 1/2 in. holes and is carried on a swivel slide, which may be angled for producing taper work.

The Screw-chasing Apparatus consists of a folding-over tool slide, which swings on a strong shaft at the back of the bed; at the end of this shaft is fixed a lever carrying a brass nut; when the tool slide is brought into position this nut engages with a hub or short guide screw at end of headstock, which gives the correct movement to tool for screwing the number of threads required; an adjustable stop is provided for securing correct diameter of screw when cut; the tool can be raised or lowered slightly by screw for adjustment. When screwing tool is in operation, and has traversed the distance to be screwed, the slide is raised by handle, withdrawing the nut from hub and tool from work at same time.

The Stools carrying bed are of the cupboard type for holding tools, screw keys, etc.

Additional Parts supplied.—One improved four-jaw expanding chuck 12 in. diameter; one hand rest with eccentric grip, as shown in illustration; six hubs, 4 1/2 in. long, for screwing 10, 11, 12, 14, 16 and 18 threads per inch, unless desired otherwise; six tool-holders for turret; counter-gear, including improved adjustable self-oiling hanger bearings; shaft, cone, reversing pulleys, and belt-shifting apparatus; set of wrought-iron case-hardened screw-keys.

Length of bed	5ft.
Diam. of hole through spindle	1 1/2 in.
Diam. of countershaft pulleys	12 in.
Width of countershaft pulleys	For 2 1/2 in. belt
Speed of countershaft pulleys, revs. per minute	175
Diam. of holes in turret	1 1/2 in.

Approx. floor space occupied	8ft. 6 x 3ft. 1
.. Finished weight	.. 2240 lbs.
.. Weight packed for shipment	.. 2688 lbs.
.. Shipping measurement	.. 50 cu. ft.
Code No.	.. 0952

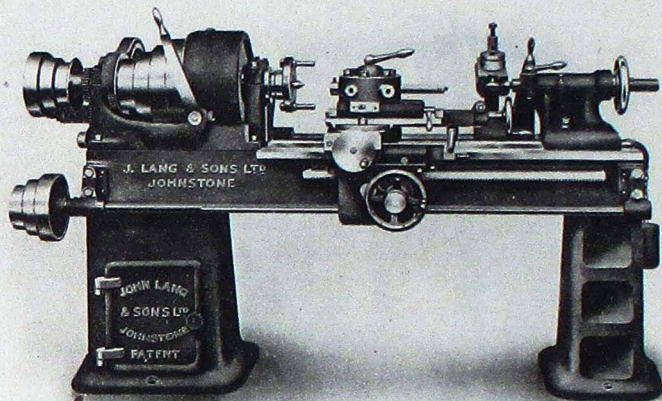
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JOHNSTONE, near GLASGOW



Sin. Centre Brassfinisher's Turret Lathe

SELF-ACTING SLIDING. PATENT BED. PATENT LOOSEHEAD.



No. 4030

THE illustration shows a type of Lathe for the rapid production of Brass work of plain or intricate form, in large or small quantities, and we have embodied the experience of many years in this standard design.

The Headstock is of the double-gear friction type, which enables a workman to use either single or double gear by movement of a handle without stopping Lathe. **The Spindle** is hollow, and is made of Crucible Cast Steel accurately ground cylindrical. It runs in parallel gun-metal bearings of large diameter.

The Loosehead is designed so that it can always be kept in perfect alignment and without side shake.

The Saddle has longitudinal guide about six times greater than its width. It is arranged with self-acting sliding motion, and three changes of feed are provided. Cross slide is arranged for hand surfacing, and stop is fitted for bringing turret central with fasthead spindle. Turret is carried on a swivel guide, which may be angled for producing tapered work.

The Screw-chasing Apparatus consists of a folding-over tool slide, which swings on a strong shaft at the back of the bed; at the end of this shaft is fixed a lever carrying a brass nut; when the tool slide is brought into position this nut engages with a hub or short guide screw at end of headstock, which gives the correct movement to tool for screwing the number of threads required; an adjustable stop is provided for securing correct diameter of screw when cut; the tool can be raised or lowered slightly by screw for adjustment; when screwing tool is in operation, and has traversed the distance to be screwed, the slide is raised by handle, withdrawing the nut from hub and tool from work at same time. This handle rests on a machined surface at back of loosehead, allowing the folding-over screwing apparatus to be brought into position without removing work from between the centres.

The Stools carrying bed are of the cupboard type for holding tools, screw-keys, etc.

Additional Parts supplied.—One improved four-jaw expanding chuck 12in. diameter; six hubs, 4 $\frac{1}{2}$ in. long, for screwing 10, 11, 12, 14, 16, and 18 threads per inch, unless desired otherwise; six tool-holders for turret; reversing counter-gear complete including improved adjustable self-oiling hanger bearings; set of wrought-iron case-hardened screw-keys.

Length of bed	8ft.	Approx. floor space required	7ft. 3 x 3ft. 6
Diam. of hole through spindle	1 $\frac{1}{2}$ in.	finished weight	3360 lbs.
Admits between centres	2ft. 6	weight packed for shipment	3920 lbs.
Diam. of holes (6) in Turret	1 $\frac{1}{2}$ in.	shipping measurement	110 cu. ft.
Diam. and width of countershaft pulleys	12 x 2 $\frac{1}{2}$ in.	Code No.	0063
Speed of countershaft, revs. per min.	175		

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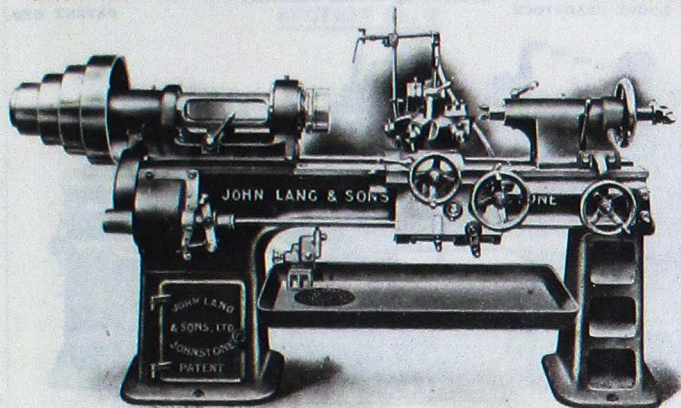


Open-Spindle Capstan Lathe

to Screw up to 1in. diameter.

PATENT LOOSE HEADSTOCK.

PATENT BED.



No. 4360

THE above illustration shows a type of Lathe for manufacturing from bar iron or steel all kinds of screws or studs. A strong feature is its capacity for making two, one, or three studs of superior finish with the standard equipment of tools supplied, but without the necessity of setting stops; when quantities are required, stops can be fitted to Lathe.

The Patent Loose Headstock embodies a new departure, the main spindle carrying a centring tool besides an ordinary centre. Either of these may be immediately brought into alignment with the fast headstock spindle. On work necessitating a long projection from the chuck, this centring tool is brought into position and the bar centred. The ordinary centre is then immediately brought into position and steadies the point of bar. Thus the work is gripped firmly at one end, and runs in a centre at the other, forming a combination which is unequalled for the production of true work. The body of headstock rests on an inverted V on bed, making it impossible ever to have side-shake; substantial friction grip for binding spindle, small oil-holder and pin for oiling centre.

The Bed is Lang's Patent Type of latest design. It is of extraordinary width, especially on the body, giving great rigidity for high-speed cutting.

The Saddle has longitudinal guide about ten times greater than its width, thereby eliminating cross twist. A round capstan carrying five tool-holders of specially rigid design, is fitted. The standard tools supplied are rough turning, finishing, necking, pointing, and cutting-off, but others may be substituted as desired. Lang's Handle Feed Motion enables the workman to change the rate of, or reverse feed without stopping Lathe or withdrawing tool.

A Folding-over Screwing Head is arranged to swing out of the way when not in use. It has an improved die-holder, which does not require a plate in front to keep the dies in position, and allows work to be screwed up to a shoulder. The dies may be re-cut many times, thus economising steel.

Pump, Pan, and Pipe Arrangement are fitted for giving a large flow of lubricant to tool when cutting.

A Tool and Work Shelf is arranged at back of Lathe, besides cupboard presses in stools supporting bed.

Additional Parts supplied.—Six round turning tools; four square tools for finishing; six V tools, with assorted cutting points; four pointing tools; three cutting-off tools; conical grips for holding bars from 1/4 in. to 2 in., rising by 1/4 in.; screwing dies, from 1/4 in. to 1 in., rising by 1/4 in.; one reamer for bevelling front of dies after being re-cut; set of case hardened screw-keys; two-speed counter-gear complete, including improved adjustable self-oiling bearings.

Length of bed	6ft.	Approx. floor space required	7ft. 11 x 2ft. 6
Admits between chuck and loose head	2ft. 3in.	finished weight	3024 lbs.
Diam. of hole through spindle	2 1/2 in.	weight packed for shipment	3996 lbs.
Diam. of largest step on cone pulley	1 1/2 in.	shipping measurement	105 cu. ft.
Diam. of smallest step on cone pulley	7/8 in.	Code No.	0954
Width of each step (4 in number)	3 1/2 in.		
Feeds per rev. of spindle	1/16, 1/8, 1/4, 3/8 in.		
Speeds of countershaft, revs. per minute	235 & 75		
Diam. of countershaft pulleys	1 1/2 in.	Extras—	
Width of main shaft pulleys	8 in.	Set of Master Taps for re-cutting dies	01
		Leading screw	02
		Self-opening die-head	03

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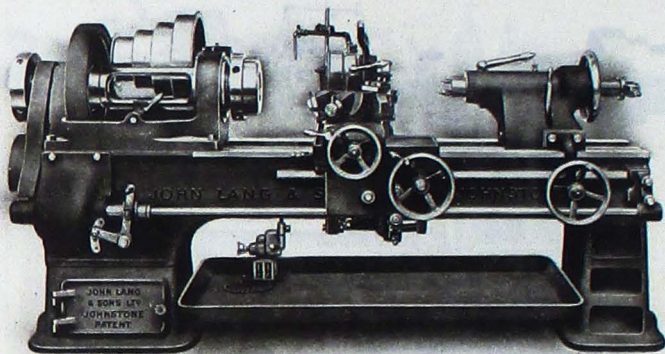


Open-Spindle Capstan Lathe

to Screw up to 15in. diameter.

PATENT LOOSE HEADSTOCK.

PATENT BED.



No. 4361

THE above illustration shows a type of Lathe for manufacturing from bar iron or steel all kinds of screws or studs. A strong feature is its capacity for making one, two, or three studs of superior finish with the standard equipment of tools supplied, but without the necessity of setting stops; when quantities are required, stops can be fitted to Lathe.

The Patent Loose Headstock embodies a new departure, the main spindle carrying a centring tool besides an ordinary centre. Either of these may be immediately brought into alignment with the fast headstock spindle. On work necessitating a long projection from the chuck, this centring tool is brought into position and the bar centred. The ordinary centre is then immediately brought into position and steadies the point of bar. Thus the work is gripped firmly at one end, and runs in a centre at the other, forming a combination which is unequalled for the production of true work. The body of headstock rests on an inverted V on bed, making it impossible ever to have side-shake; substantial friction grip for binding spindle, small oil-holder and pin for oiling centre.

The Bed is Lang's Patent Type of latest design. It is of extraordinary width, especially on the body, giving great rigidity for high-speed cutting.

The Saddles has longitudinal guide about ten times greater than its width, thereby eliminating cross twist. A round capstan carrying five tool-holders of specially rigid design, is fitted. The standard tools supplied are rough turning, finishing, necking, pointing, and cutting-off, but others may be substituted as desired. Lang's Handle Feed Motion enables the workman to change the rate of, or reverse feed without stopping Lathe or withdrawing tool.

A Folding-over Screwing Head is arranged to swing out of the way when not in use. It has an improved die-holder, which does not require a plate in front to keep the dies in position, and allows work to be screwed up to a shoulder. The dies may be ret-cut many times, thus economising steel.

Pump, Pan, and Pipe Arrangement are fitted for giving a large flow of lubricant to tool when cutting.

A Tool and Work Shelf is arranged at back of Lathe, besides cupboard presses in stools supporting bed.

Additional Parts supplied.—Six round turning tools; four square tools for finishing; six V tools, with assorted cutting points; four pointing tools; three cutting-off tools; conical grips for holding bars from $\frac{1}{4}$ in. to 3 in., rising by $\frac{1}{4}$ in., up to 2 in.; and from 2 $\frac{1}{2}$ in. to 3 in., by $\frac{1}{4}$ in.; screwing dies, from $\frac{1}{4}$ in. to 1 $\frac{1}{2}$ in., rising by $\frac{1}{4}$ in.; one rose reamer for bevelling front of dies after being re-cut; set of case hardened screw-keys; two-speed counter-gear complete, including improved self-oiling adjustable hanger bearings.

Length of bed	8ft.
Admits between chuck and loose head	3ft. 6in.
Diam. of hole through spindle	3 $\frac{1}{2}$ in.
Ratio of gearing	3 to 1
Diam. of largest step on cone pulley	16in.
Diam. of smallest step on cone pulley	7 $\frac{1}{2}$ in.
Width of each step (4 in number)	3 $\frac{1}{2}$ in.
Feeds per rev. of spindle	$\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, $1\frac{1}{2}$ in.
Speeds of countershaft, revs. per min.	350 & 118
Diam. of countershaft pulleys	14in.
Width of main shaft pulleys	8in.

Approx. floor space required	9ft. 6 x 3ft. 4
finished weight	8152 lbs.
weight packed for shipment	8936 lbs.
shipping measurement	180 cu. ft.
Code No.	0958

	Code for Extras
Extras—	
Set of Master Taps for re-cutting dies	01
Leading screw	02
Self-opening diehead	03

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