



School Project Sheet

Old Trade Advertisements

Telegraphic Address, "PORRITTS, RAMSBOTTOM." Telephone No., 101., Ramsbottom.

PORRITT BROTHER & AUSTIN,

STUBBINS VALE MILLS,
RAMSBOTTOM, nr. MANCHESTER.

(Two Minutes' Walk from Stubbins Station, on the L. & Y. Railway.)

MANUFACTURERS OF

ROLLER, CLEARER & WASHER CLOTHS.

SCAVENGER CLOTHS, &c.

TAPERS' FLANNELS & WINDERS' CLOTHS.

FRICTION CLOTHS, &c.

EXTRA STOUT & IMPROVED SIZING CLOTHS

FOR BALL WARP SIZING.

WOOLLEN CARD CLOTHS FOR CARD MANUFACTURERS,

And every description of Woollen, Linen and Cotton Cloths for Machinery.

K^{AYE'S} Patent Steel Seamless Syphon OIL CANS.

NO LEAKAGE!

NO BREAKAGE!



1-PINT.

18s. per Dozen.

Sample sent on Receipt, to any Address, for Two Shillings.

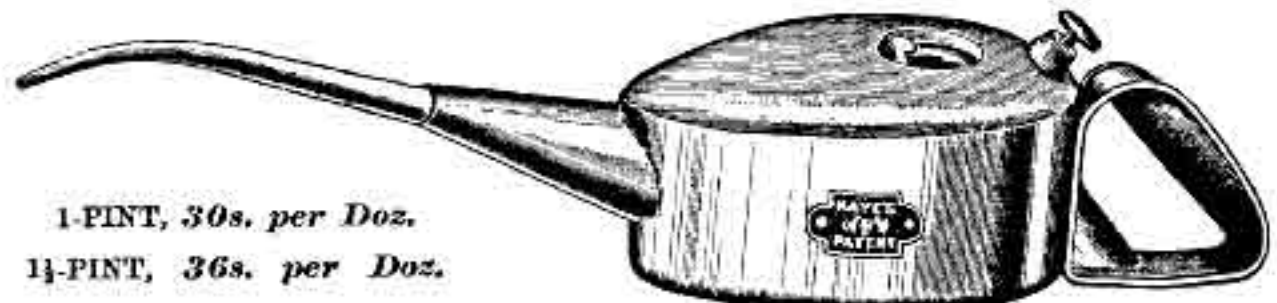


1-PINT.

24s. per Dozen.

These cans are now made so that the Spouts can be changed when damaged. Oil Cans under this Patent
4s. per doz. above this list.

EXTRA NEW SPOUTS, 5-in. 1/- per doz., 7-in. 1/6 per doz., 10-in. 2/- per doz.



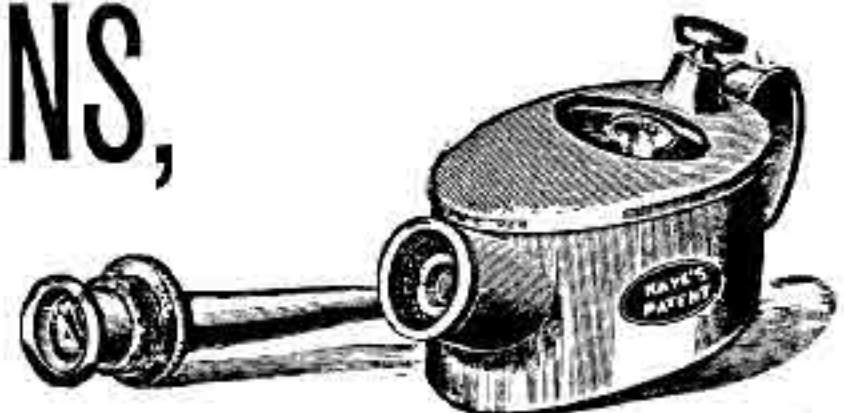
1-PINT, 30s. per Doz.

1 1/2-PINT, 36s. per Doz.

JOSEPH KAYE & SONS,

LIMITED,

K^{AYE'S} Patent Lock Works, LEEDS.



F. W. REYNOLDS & CO.

Are offering at Special Prices for Cash or upon Extended Terms, several

WOOD-WORKING AND OTHER MACHINES

which have been taken back from Hire, &c.



Saw Bench, rising and falling spindle, table 3ft. 3in. by 2ft., to take 18in. saws, with boring slide and two saws, £19 10s.]

Firewood Saw Bench, 4ft. by 2ft., to take 24in. saw, £10 10s.

Saw Bench, rising and falling table, 3ft. 3in. by 1ft. 9in., to take 21in. saw, £12 10s.

Saw - Sharpening Machine, £19.

Firewood Bundler, 13in. Jaws, on Stand, with Wooden Table, £5.

Saw Bench, for Hand Power, with rising and falling spindle, one 13in. saw, spanner and handle, £3.

Fret Saw Machine, for Power, with Overhead Gear, £10 10s.

Dovetailing Apparatus, with Cutter Head and Loose Spindle, Suitable for Vertical Moulding Machine, £10.

"Princess" Bandsaw Machine, £8.

Rounding Machine, with 1½in. head and self contained countershaft to work ½in. to 1½in., £12 10s.

9in. Hazeland Planer, for boards, boxes, and laths, £36.

Saw Bench, fixed spindle for power, with one saw ea. 12in. and 13in., £11 10s.

7½ B.H.P. Gas Engine (in capital condition), £39.

8½ B.H.P. Oil Engine (nearly new), £55.

Several Lathes, varying in price from £9 to £30.

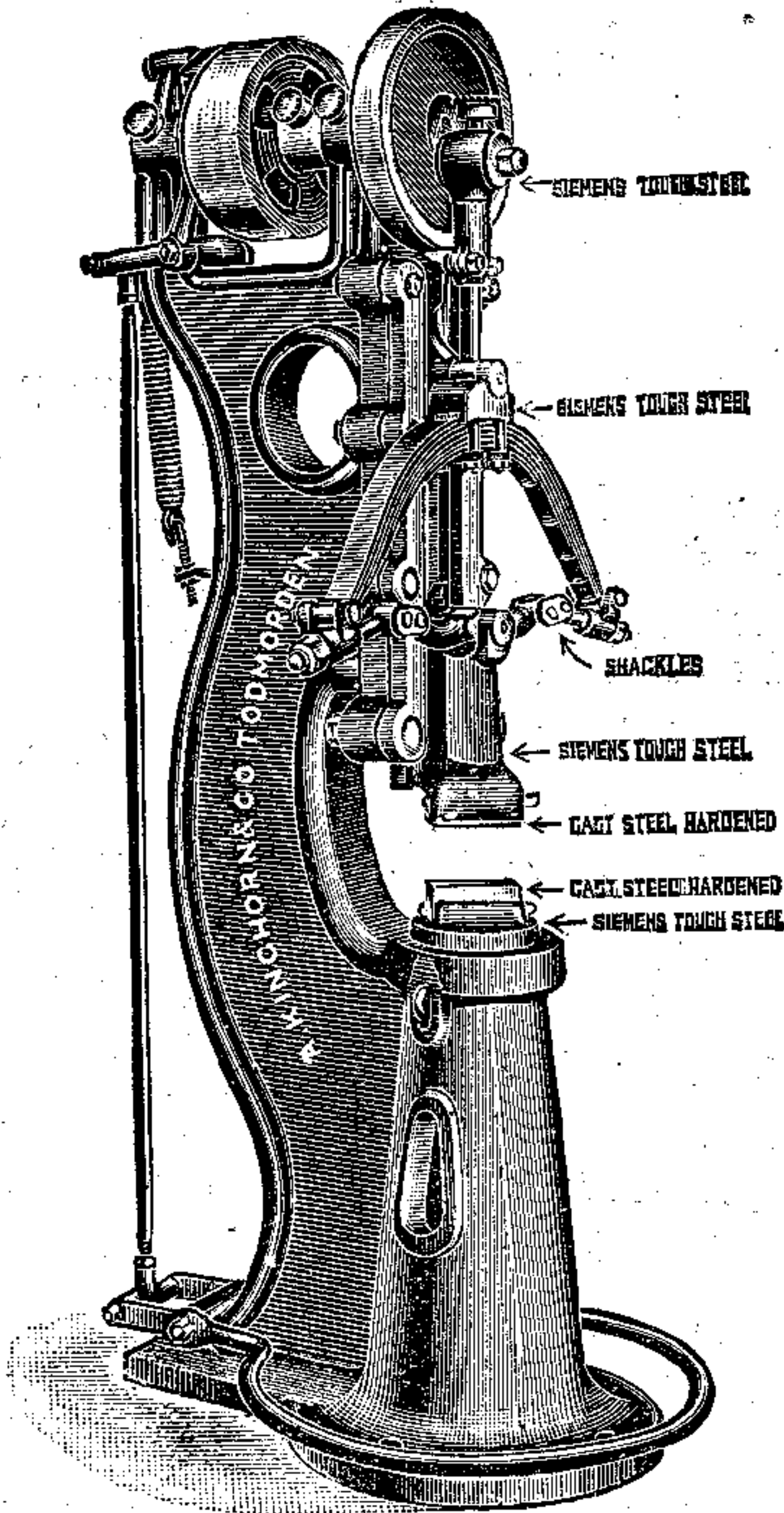
THESE MAY BE INSPECTED AT

**"Acorn" Works, Edward Street,
Blackfriars Road, S.E.**

A. KINGHORN & CO., MILLWOOD
WORKS.
TODMORDEN, ENG.

**B
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SPECIALITY.

**H
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TESTED AND FOUND CORRECT.

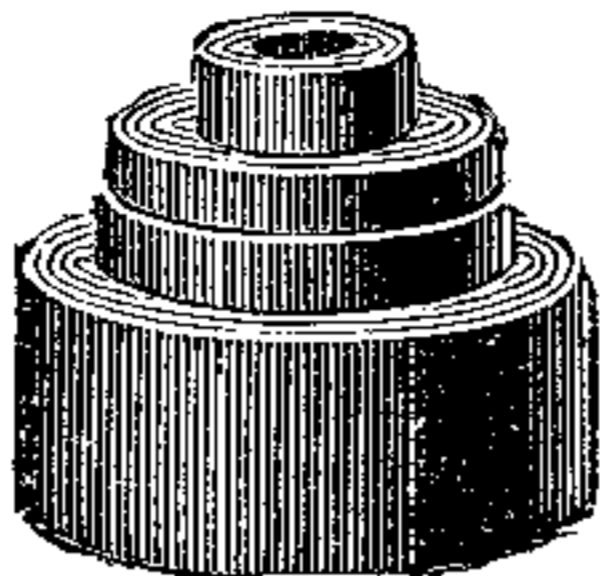
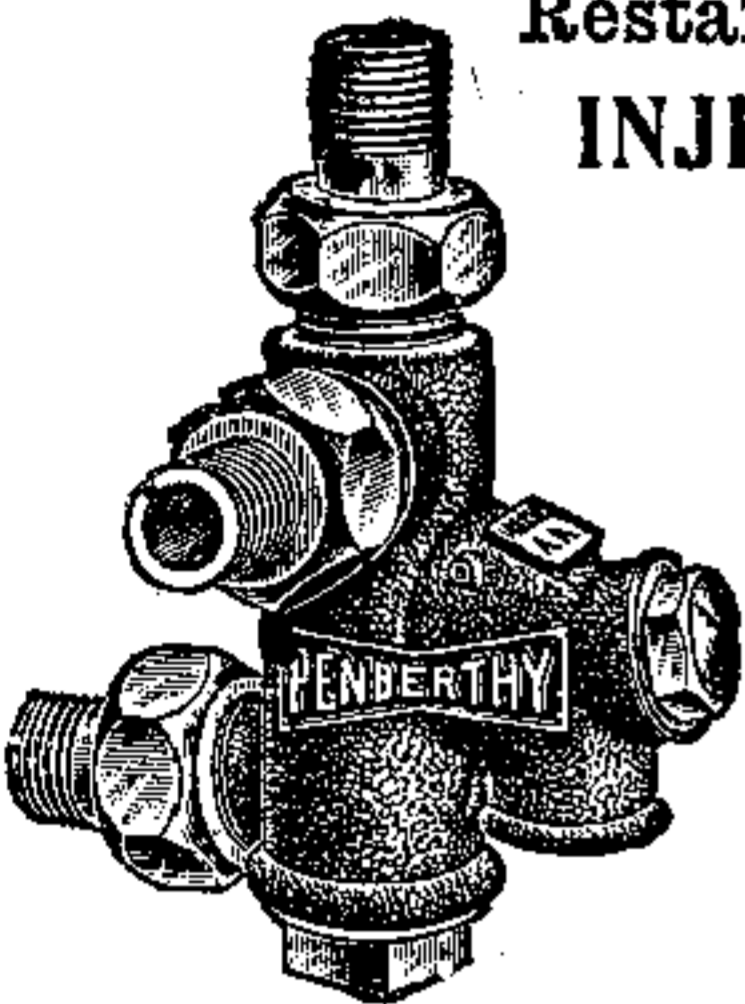
**MAKERS OF PUNCHING AND SHEARING MACHINES
(HAND AND POWER).**

SEND FOR LISTS.

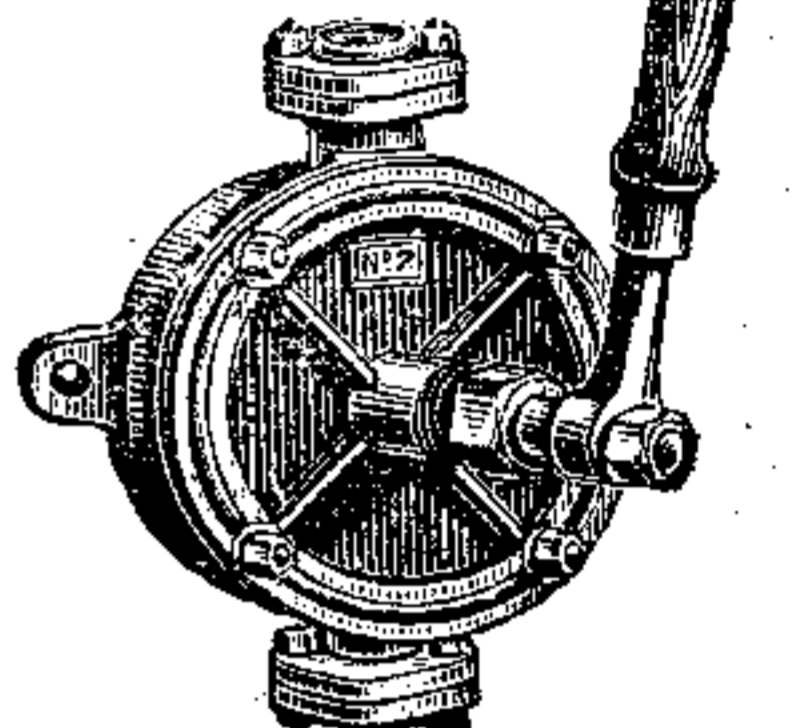
ENGINEERS' STORES

"PENBERTHY"

Automatic and
Restarting
INJECTOR



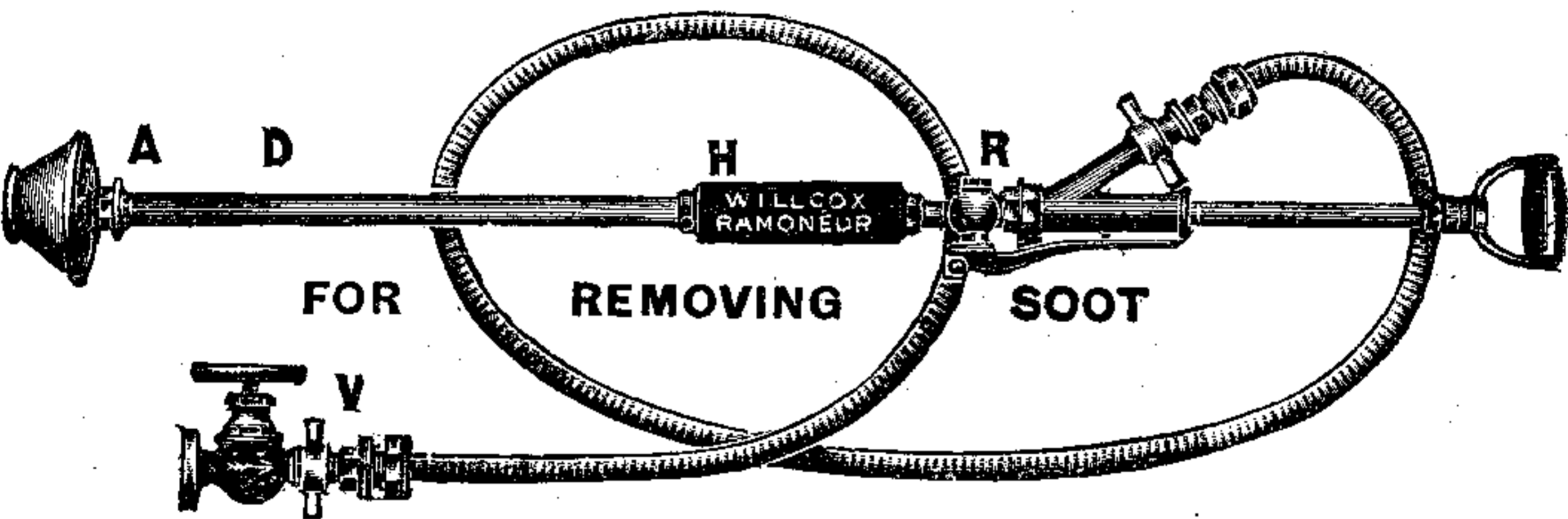
WILLCOX
Semi-Rotary
WING PUMPS



Leather, Cotton, Hair,
Balata and India-Rubber
BELTINGS

"RAMONEUR"
TUBE CLEANER

Works with Hot Air and Dried Steam | Saves Time, Tubes and Trouble



ALSO

"JONES-WILLCOX"

PATENT WIRE-BOUND (Non-Rubber) HOSE

We supply everything for the Engine-Room. State
your requirements and we shall be pleased to quote.

W. H. WILLCOX & CO. LTD.
SOUTHWARK STREET, LONDON, S.E.

WHEATMAN AND SMITH,
MANUFACTURERS OF SAWS,
SEGMENTS, CAST STEEL & COMPOSITION DOCTORS
Straight & Twisted Machine Knives,
MILL SAW TILLERS,
BUCKLES AND WEDGES,
IMPROVED COTTON GIN SAWS AND GRATES,
PATENT CIRCULAR SAWS FOR SAWING SWEEPS,
ENGRAVERS' STEEL PLATES,
ALL OF THE BEST QUALITY.

MANUFACTURERS of Patent Improved Circular SAWS,
STEEL REFINERS, &C.,
RUSSELL-ST., SALEMFIELD.



OVER 3,500,000 IN OPERATION.

"THE NEEDLE LUBRICATOR"
(LIEUVAIN'S PATENT).

Price **ONE SHILLING** Each.

Supersedes all others in economy and efficiency.
—A saving of 75 per cent. in oil.

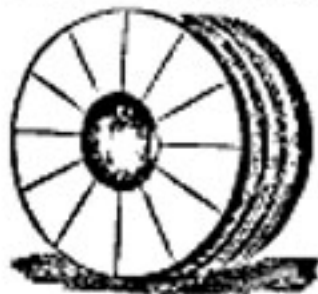
Proprietors of English Patent, **CLARKE and DUNHAM**, Patentees of the Millstone Balance, Millstone and Flour Mill Machinery Factors, Sole Agents for London and Home Counties for Golay's Patent, 48, **MARK LANE**, London. O333

CLARKE & DUNHAM,

69, MARK LANE, LONDON, E.C.,

Engineers, Flour Mill Machinery, and Millstone Factors,

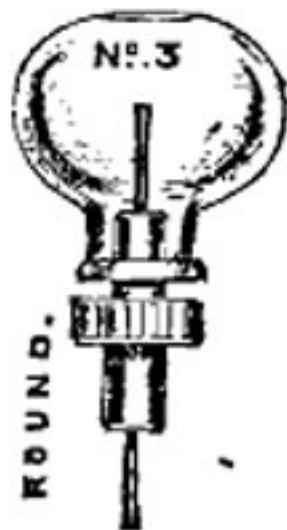
SOLE LICENCEES OF LIEUVAIN'S "NEEDLE" LUBRICATOR, PATENT



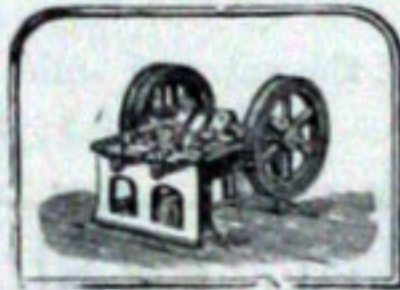
MILLSTONES.



OIL CANS.



All Patent "Needle"
Lubricators bear
the mark "Lieuvain's
Patent," otherwise
they are infringements.



Will make 10 Bolts per minute.



Will make 45 to 85 Nuts per minute.



SAML. MARSDEN & SON,
Manchester Screw-Bolt Works,
LONDON ROAD, MANCHESTER.

200 TONS of BOLTS, NUTS, &c., always in Stock. MADE BY PATENT MACHINERY
PATENTEES and MAKERS of SPECIAL MACHINERY for BOLT, SPIKE, and NUT MANUFACTURING.

Over 100 of these Bolt and Spike-making Machines have been sold to Engineers, Railway Carriage and Waggon Builders, and Screw-Bolt Manufacturers. They will make from 2000 to 4600 Bolts per day.

Over 25 of these Nut Machines have been supplied to Nut and Bolt Manufacturers, Engineers, and others.

No. 1 Machine will make 85 square nuts, and No. 2 Machine 65 square nuts. No. 3 Machine 45 square nuts per minute, at a cost for labour of 1s. per gross for $\frac{1}{2}$ and 5-16, $\frac{1}{2}$ d. per gross for $\frac{3}{4}$ and 7-15, and $\frac{3}{4}$ s. per gross for $\frac{1}{2}$ and 9-16, and 6d. per cwt. for $\frac{3}{4}$ to 1 $\frac{1}{2}$ s. square nuts.—TO SEE THE MACHINES WORKING APPLY AS ABOVE.

O1268-2a

ARTHUR H. BATEMAN,

(Founder of the Firm of A. H. Bateman & Co., and Managing Director of the late A. H. Bateman & Co., Ltd.)

But entirely unconnected with Messrs. ROOPER & HARRIS, who, having purchased the old business, are now trading as A. H. BATEMAN & CO.

EMERY WHEEL MAKER & ENGINEER

Westcombe Hill Works, EAST GREENWICH, LONDON, S.E. 8188

(CLOSE TO WESTCOMBE PARK STATION, S.E. RY.)

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"KAYE, HIGH HOLBORN, LONDON."

Contractors to H.M. Navy, also to H.M.
War Department and Home Office, Indian States
Railway, and other British Railway Companies.

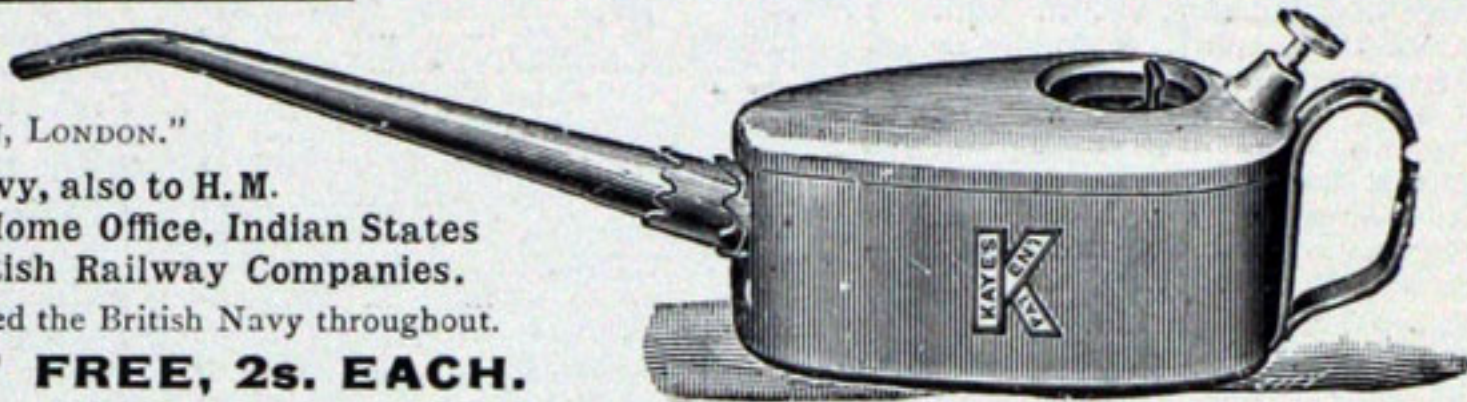
No other maker has supplied the British Navy throughout.

SAMPLE, POST FREE, 2s. EACH.

Patent Steel **K's SEAMLESS OIL CAN** with Patent Seamless Spout.

JOS. KAYE & SONS, Ltd., KAYE'S PATENT LOCK WORKS,
LEEDS.

And at 93, HIGH HOLBORN, LONDON, W.C.



“STAUFFERS” (REGISTERED TRADE MARK.) LUBRICANT.”

THE STANDARD MACHINE GREASE
FOR
Bearings, Gear-Boxes
AND
Chains of Motor Cars.

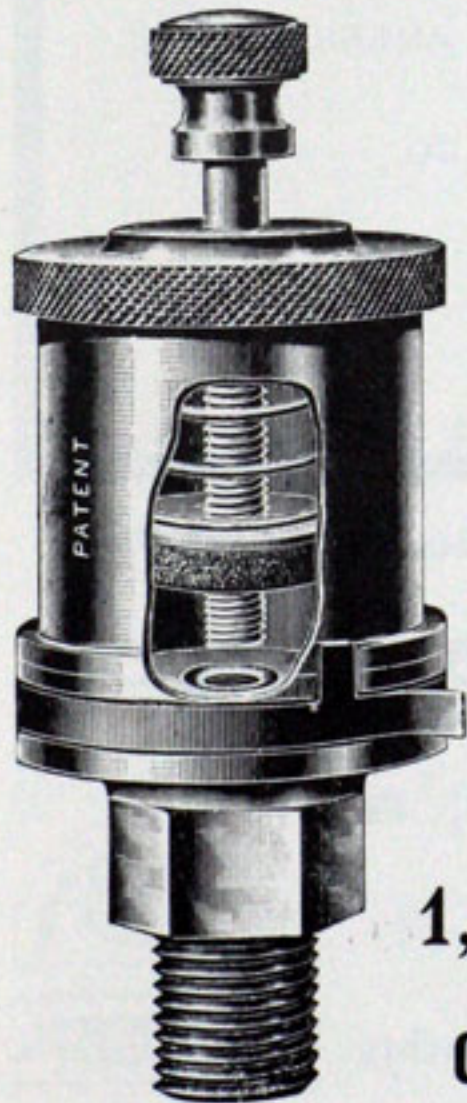
SOLE Makers:

TRIER BROS.,

1, Great George St., Westminster

AND

CUMBERLAND WORKS, CAMBERWELL, S.E.



British

Engine, Boiler and Electrical Insurance Co. Ltd.



12, King St., Manchester

CHIEF
ENGINEER: **Michael Longridge**, M.A., M.I.C.E., M.I.M.E.

The

Prevention & Remedy of Breakdowns

i. e.

INSPECTION with INSURANCE
is the business of this Company

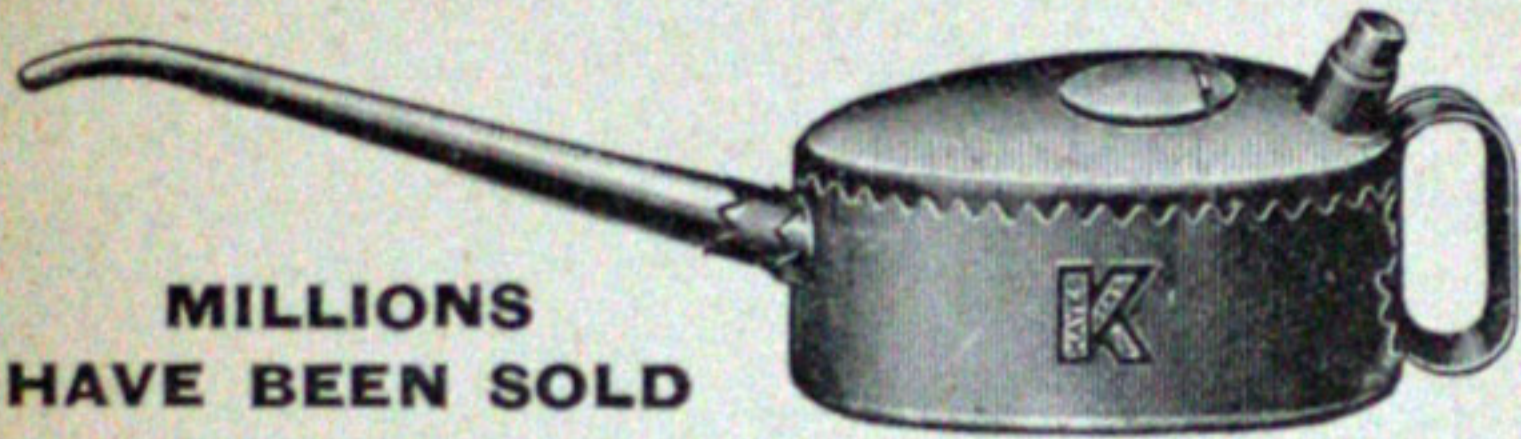
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**Dynamos, Boilers, Gas Plants
Motors, Engines, Lifts, &c.**

The Company also undertake the
ANALYSIS OF BOILER FEED WATER, COAL, ETC.

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HAVE BEEN SOLD**

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TO
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KAYE'S "SEAMLESS" STEEL LAMP

NO LEAKAGE

Ask for Complete List

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MANY OTHER
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APPLY
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JOSEPH KAYE & SONS LTD.

HUNSLET, LEEDS, or

93 HIGH HOLBORN, LONDON, W.C.

ESTABLISHED 1845

Manufacturers of all kinds of .

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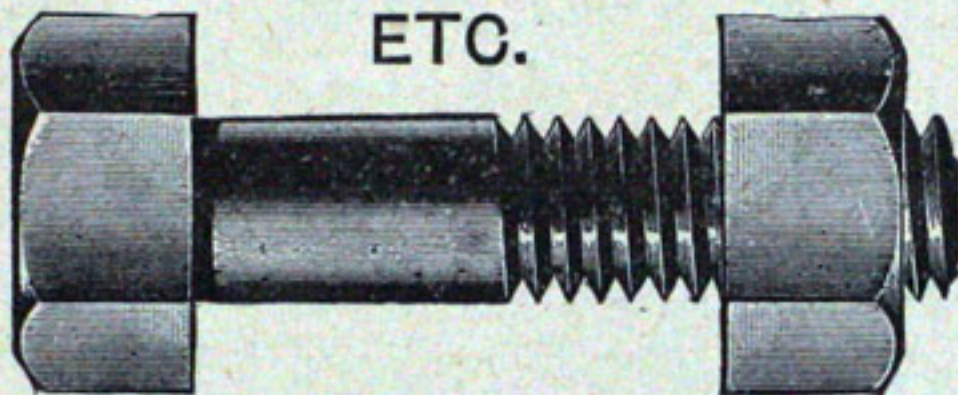
BOLTS, STUDS, NUTS

ETC.

BRIGHT WORK

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500 TONS

BOLTS, NUTS, &c.,

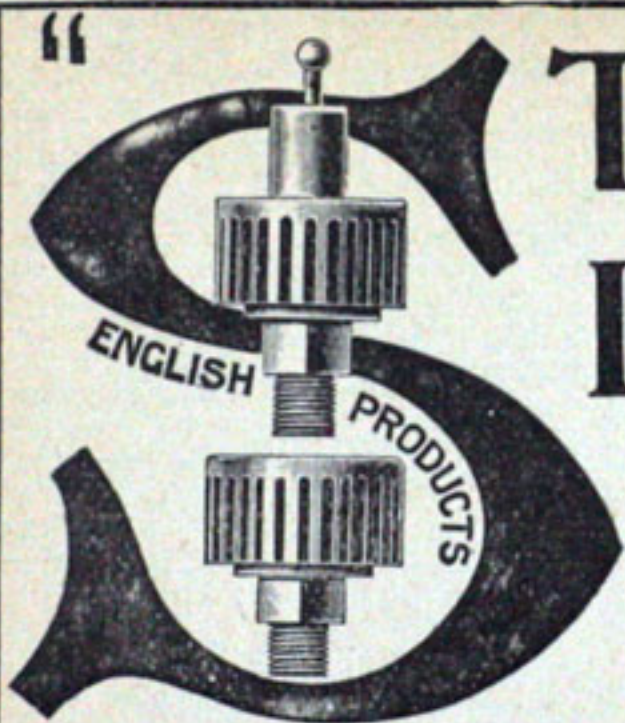
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Telegrams—"BOLTS, MANCHESTER."

Telephone—No. 2031 Central, Two Lines.



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CONTINUES TO BE, AFTER

25 Years

THE STANDARD MACHINE GREASE

Registered Trade Mark

It ensures, when applied with our

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EXTRAORDINARY **ECONOMY**, **PERFECT CLEANLINESS**, AND **CERTAINTY**
OF LUBRICATION.

Sole
Makers

TRIER BROS.,

CAXTON HOUSE, WESTMINSTER, S.W.

Works: CAMBERWELL, S.E., LONDON

LANCASHIRE BOILERS

SIZES :

24' x 6' 6" | 28' x 7' | 28' x 7' 6" | 30' x 8' | 30' x 8' 6" | 30' x 9'

APPROXIMATE EVAP. LBS. PER HOUR, EASY STEAMING

3750 | 4800 | 5760 | 6630 | 7560 | 7920

We have built over **4000** Lanc. Boilers ranging in Pressures from 80 lbs. to 200 lbs.

YORKSHIRE BOILERS

SIZES :

17' x 6' 6" | 24' x 7' 6" | 24' x 8' | 24' x 8' 6" | 24' x 9' | 24' x 9' 4"

APPROXIMATE EVAP. IN LBS. PER HOUR EASY STEAMING

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Extract from Official Report of 8 hours' Test of 4 Yorks. Boilers size 24' x 9' 4"

"Equivalent evaporation per boiler per hour
 'from and at' 212 deg. F. 15,244 lbs.
 Overall efficiency 78 per cent."

YOU know Coal is dear, but do you know a Yorkshire Boiler 24 ft. long will Evaporate as much water for 9 cwt. of fuel as a Lancashire Boiler will do for 10 cwt.?

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Sizes of Boilers . . .	15' x 4' 6"	18' x 5'	19' x 5' 6"	20' x 6'	24' x 7'
Evap. in lbs. per hour	1250	1750	2310	2520	3172

VERTICAL BOILERS

Sizes of Boilers . . .	6' x 3' 6"	7' 6" x 3' 6"	8' x 4'	9' x 4' 3"	10' x 5'
Evap. in lbs. per hr.	500	600	730	860	1050

HOLDSWORTH & SONS, LTD.

With which is amalgamated the Yorkshire Boiler Co., Ltd.
 CROFT BOILER WORKS, LEEDS ROAD,

BRADFORD.

Tel. No. 446.

T.A. Steam.

Write or call for our New Catalogue.

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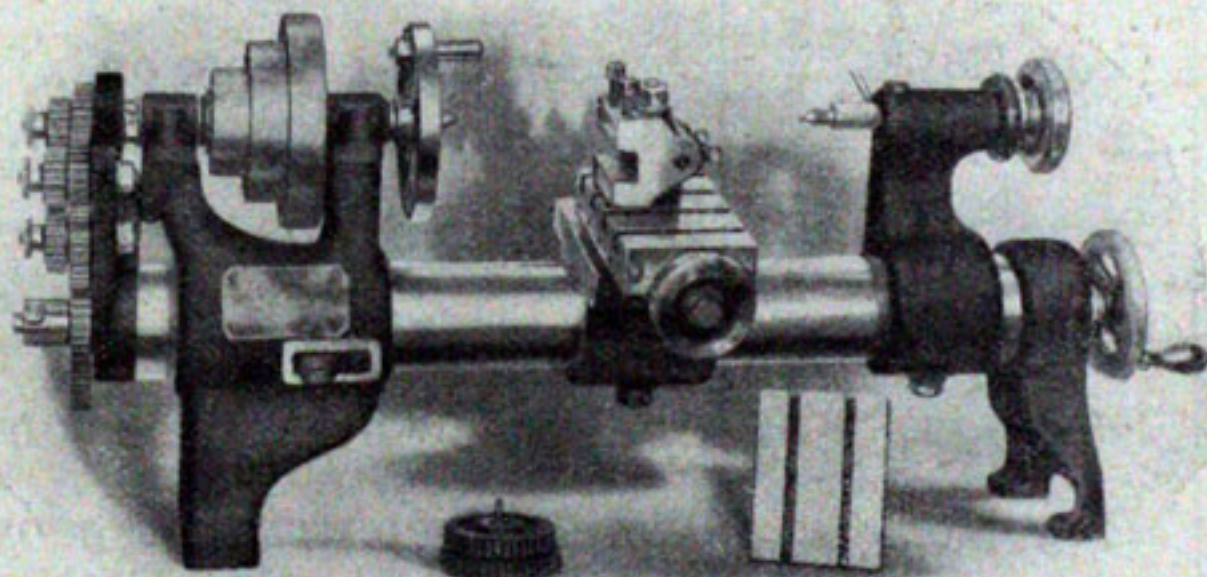
4 in. Centre
Height.
Screw Cutting
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*For full particulars
— write to —*

Drummond Bros.
LTD.,

**Chapelle Works,
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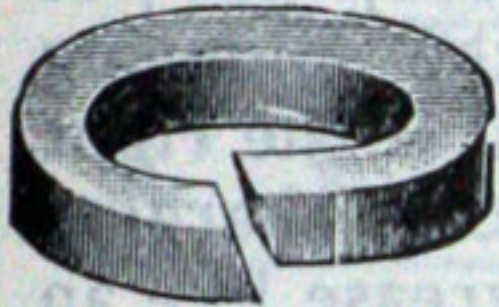
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FOR GARAGE USE.

This Lathe is exceptional in design, accuracy, and workmanship, and will do all running repairs, saving its cost many times over in one season's repair bill



SPRINGS
AND
SPRING
WASHERS,
for Engineering
and General Use.



No. 1

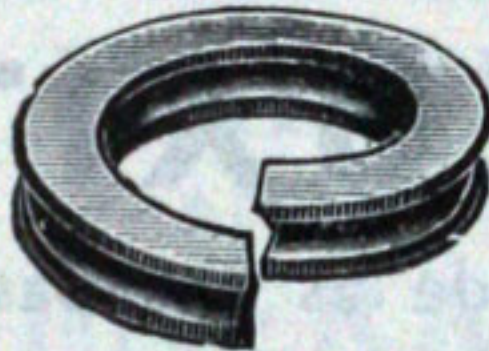


No. 2

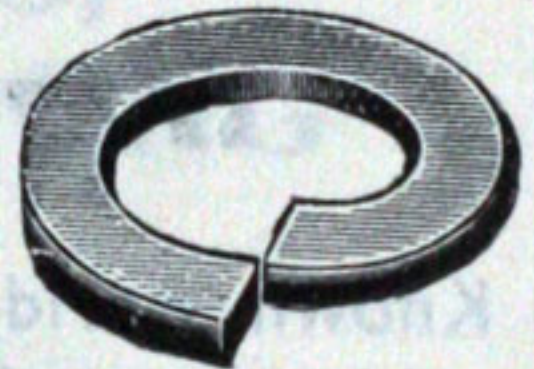
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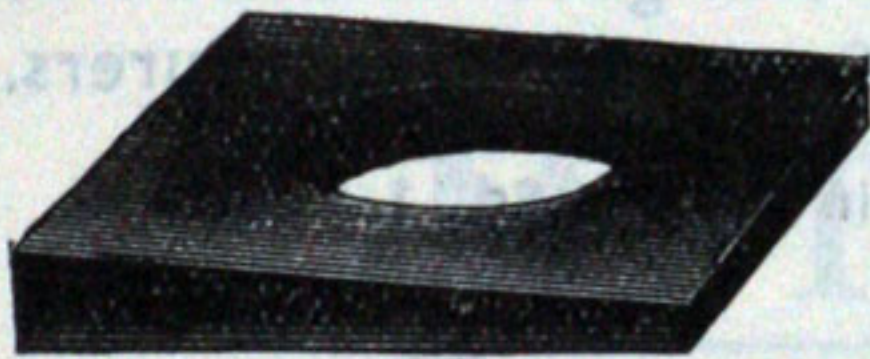
No. 3



No. 4



No. 5



No. 6

Mild Steel
SQUARE TAPER
WASHERS

JOHN TONKS & CO.,

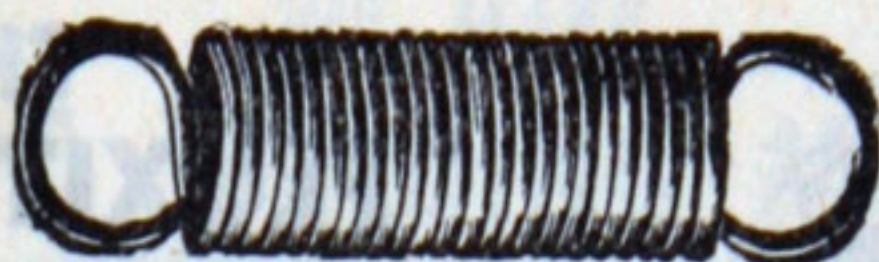
Central Spring and Steel Works, Furnace Hill,

Telephone:
24679.

SHEFFIELD, 3.

Telegrams:
"Tonks, Sheffield."





SPRINGS

AND

SPRING

WASHERS

*for Engineering
and General Use.*



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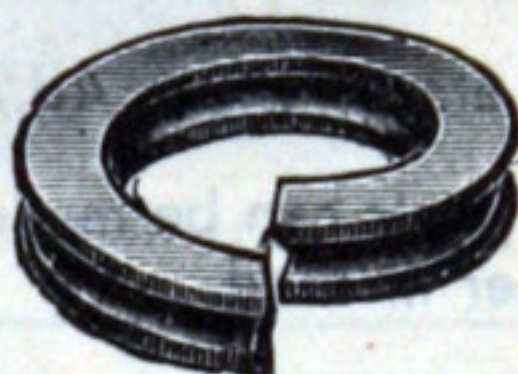


No. 2

ANY SIZE TO ORDER



No. 3



No. 4



No. 5



No. 6

Mild Steel

SQUARE TAPER

WASHERS

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Telegrams :
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Ejector Jet Condensers

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Jet Apparatus

Gilled Pipes

Radiators

etc. etc.

etc.



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PORTLAND CEMENT
MAKERS
RECENT IMPROVEMENTS
PATENTED WITH



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LEDWARD & BECKETT LTD.

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WESTMINSTER, S.W.

THE
Oldham Boiler Works Company,

LIMITED,

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ESTABLISHED 1816.

MAKERS OF ALL TYPES OF

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STEAM BOILERS,

ON THE MOST MODERN PRINCIPLE.

By Patent Machinery, specially adapted for Drilling, Rivetting, and Flanging.

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WITH INCREASED FLUE-HEATING SURFACE.

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COLONIAL ENGINES,
SEMI-PORTABLE ENGINES,
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GAS WEIR,

&

SLUICE
VALVES.

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ENGINEERS**

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HORIZONTAL
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of the highest class & most approved construction & of

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Manufacturers can't watch every cog in their machinery with personal attention—their time's too valuable! That is why so many of them rely on Douglas Lawson Pulleys . . . the pulley that can be trusted to do its work quietly and efficiently, without attention.

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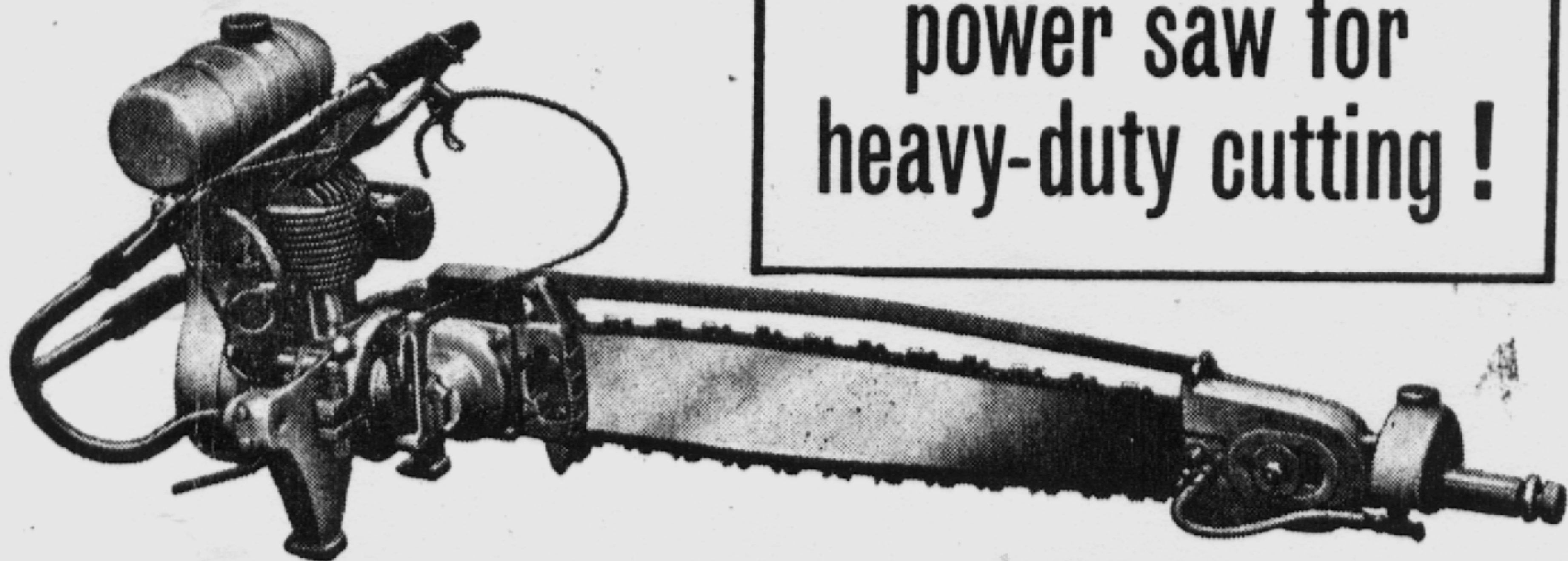
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Telephone: Batley 598 & 599

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—the ideal lightweight
power saw for
heavy-duty cutting!



SUPER-LIGHTWEIGHT

—the fastest and most reliable

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**CUTS YOUR TIMBER FASTEST
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Powered by Villiers petrol engine; 24" diam. Elm cut in 60 sec.

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GAS ENGINEERS & BOILERMAKERS,

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All Sizes kept in Stock.

BOILERS.

Ready for delivery.

CORNISH & CYLINDRICAL BOILERS.

BRASS & IRON BOILER FITTINGS OF BEST DESIGN & QUALITY.

ALL KINDS OF HIGH CLASS BOILER WORK.

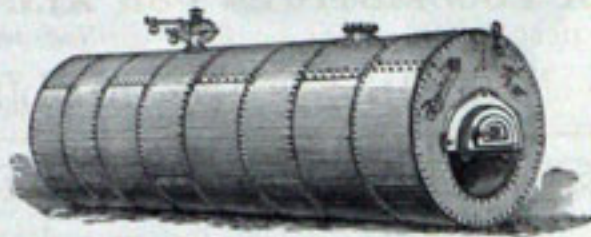
Cheapest Boiler in Cost and Working.

Designs and Estimates prepared free for Ranges of Boilers for Blast Furnaces and Collieries, &c.



VERTICAL BOILERS.

1-H.P. to 14-H.P. always in Stock.

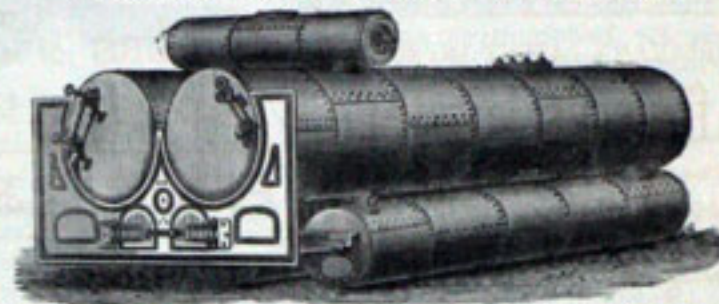


CORNISH BOILERS.

A GREAT QUANTITY CONSTANTLY IN HAND.

AT PRESENT READY.

2 Boilers, 24ft. 0in. by 6ft. 6in. 2 Boilers, 18ft. by 5ft. 0in.
2 Boilers, 24ft. 0in. by 5ft. 6in. 2 Boilers, 16ft. by 5ft. 3in.
2 Boilers, 10ft. by 4ft.



"PATENT BIRMINGHAM BOILER" (KESTERTON'S).

ESPECIALLY SUITABLE FOR SHIPMENT.

EVERY SIZE IN STOCK.

Send for Price List and Testimonials.

CONICAL TUBES from 25s. to 35s. each. WROUGHT, WELDED, and FLANGED MANHOLES, £3 15s. each. WELDED and FLANGED FLUE RINGS, 21s. per cwt.

SUGAR PANS, SALTPETRE, FARINA, & INDIGO PANS.

Every description of PAN for SOUTH AMERICAN & WEST INDIAN MARKETS.

GALVANISING BATHS, ANNEALING POTS, QUICKSILVER BOTTLES, AIR CYLINDERS, &c.

TANKS, GIRDERS, BRIDGE WORK.

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