No. 37.

SCUTCHER OR LAP MACHINE

With heavy iron frame, and 3 small Perquemin cylinders, and cage to follow; has also one beater, with cage to follow. This machine both opens and cleans the cotton, and also makes it into a lap, occupies a space of 23 ft. 6 inches long, by 7 feet wide; has driving pulleys 12 x 3½ in., should run 200.

30 inch $5
35 $6
40 $7

Foldout reduced to 67% to fit on page.
No. 38

Improved Lap Machine

With one Beater 16 in diameter one set of Feed Rollers and improved cage... Machine 15 ft long 7 ft wide Driving pulley 9 in diameter 3 ft face and should run 1500 revolutions per minute

$30 in. wide
$36
$40
Even motion to regulate the lap... $
COTTON CLIPPER CARD.

Solid iron frame or sides: Arches Cased up with iron. Main Cylinder 30 Inches in Diameter. Doffer 20 Inches in Diameter; Segments: Block 4 Workers 6 Inches in Diameter. 4 Stripper 3 ¼ inches in diameter. 2 Lickerins 10 Inches in diameter; one Patent Stripper 10 In. in diameter. Driving from Counter Shaft, with Variable Speeds. The Lickerins being made all adjustable one to the other. Fluted feed rollers, driven with a Diagonal shaft and gear wheels; zinc sliding and dirt box under Cylinder; Driving Pulleys 16 Inches in Diameter. Main Cylinder should run 144 Revolution per minute occupies a space of 3 Feet 6 Inches long, by 3 Feet 3 inches Wide.

30 in Wide $5
38 $5
40 $5
Iron frame, with cone speed to drive Patent Stripper on Clipper Card. Variable speeds, case up. Driving pulleys 8 inches in diameter, should run 240 revolutions per minute. Occupies a space of 3 feet 6 inches long by 3 feet wide.
No. 41.

CLIPPER RAILWAY DRAWING HEAD.

With one set of four steel rollers 1 3/4 inches in diameter, 12 inches long on the flutes with plunger, and revolving on 10 inches in diameter and cased up to prevent dust or dirt entering in the wheels, occupies a space of 3 feet 1 inch long by 3 feet 1 1/2 inches wide driving rollers 8 inches in diameter and should run.  Revolution per minute.
N° 42

CLIPPER RAILWAY DRAWING HEAD.

With 1 Set of 4 Steel Rollers 1 7/8 inches in diameter, 12 inches long on the flutes
with one plunger and revolving can 12 inches in diameter, solid iron sides, and Cased up
to prevent draft or dust getting into the wheels, occupies a space of 3 Feet 6 Inches.
Long by 3 Feet 6 In. Wide Driving pulley 6 Inches in Diameter and should run 381/2 Rev-
lution per minute with proper motion.
No. 43

THE KEYSTONE COTTON CARD

Has heavy Iron frame & Casing, Main Cylinder 43 inches in diam., 7 workers 6 1/2 in., 5 Strippers 3 inches in diam., dcsfer 22 inches in dia., all covered with Jenks Patent Metalized wood, with First and Second初中in and Patent stripper and self-stripping motion; has adjustable sliding poppet and long sleeve bearing with protecting flange, dcsfer ... driven by a diagonal shaft, geared with heavy belt gear from main cylinder shaft, and thrown in and out of gear by clutch motion, shell with steel fluted feed rollers 2 inches in diam.; has cutter and fan motion for a 10 inch can, and adjustable Iron governing cylinder; occupies a space of 6 ft. 2 in. long by 10 ft. - inches wide; Driving pulley 16 in., 10 inches in diam. should run 160 Rev. per minute.
With 2 Heads and 6 Coilers, to each Head, Iron Roller Beams 12 inches wide; 4 rows of Rollers, and 3 length of Rollers to each head, all of cast steel 1¼ inches in diameter. Improved step motion, & receiving Rollers; Improved coilers for 10 inch Cans; upright and Bevel Wheels, to drive each coiler separate, step motion, to set up from 2 to 6 Cans per Coiler, occupies a space of 4½ ft. in. long & 2 ft. 10 in. wide. Driving Pulleys 12 inches in diameter, should run 270 Revolutions per minute.

<table>
<thead>
<tr>
<th>Driving Frame</th>
<th>1 Head 2 Coilers for 10 in. Cans</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>10</td>
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<tr>
<td></td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>10</td>
</tr>
</tbody>
</table>

" $ $
No. 45
DRAWING FRAME.

With 2 Heads and 6 Rollers to each Head. Iron Roller Beams 12 inches wide, 4 Rows of rollers, and 3 length of rollers to each head all of cast steel 1 1/4 inches in diameter. Improved stop motion on raising roller; improved roller for 8 inches Cans; upright & Reel Wheels to drive each two Rollers separate. stop motion to set up from 2 to 6 Cans per Coiler. Occupies a space of 16 1/4 2 inches long & 27 1/2 10 inches wide. Driving pulleys 12 inches in diameter, should run 270 revolutions per minute.

$ ________________________

Drawing Frames 1 Head 8 Rollers for 8 in. Cans ________________________

$ 1 6 8 in. $
No. 46.
COUNTER TWIST SPEEDER

With iron ends, front roller of steel 1 1/2 inches in diameter, middle and back of iron 1 1/2 inches in diameter. Improved List Twist motion to bring the twist close to the bobbins. Tin carrying roller inches in diameter, & improved bobbin holder. Driving pulleys 6 inches in diameter, occupies a space of 13 ft. long by 3 ft. 6 inches wide, and should run 525 Rpm per minute.

12 bobbins 8 or 9 inches long
16 do 9
20 do 9
24 do 9
68 Spindles, Iron Roller Beam and Stands, with 3 rows of Steel fluted rollers; no crest but a tin roller, to conduct the roving from a can, with 3 Inch lift and centrifugal presser, which makes a Bobbin 9 x 4 inches in Diameter; will produce 800 lbs. of 3/4 hank Slubbing per 10 hours. Driving pulleys 12 x 3 Inches, & should run 200 Rev. per minute, occupies a Space of 18 feet in length, and 5 feet Inches in Width.
No. 48.
ROVING OR JACK FRAME.

Has 110 Spindles, Iron Roller Beam and stand, with 3 rows of Fluted Rollers, 7 inches lift, and improved Centrifugal presser, making a Bobbin 7 x 3 in. in Diameter, with a Creel, to take in 8 inches shedding Bobbins, will produce 350 lbs of 2½ hanks roving per 10 hours, driving pulleys 12 x 3 inch should run 225 revolutions per minute occupies a space of 10 feet in length by 7½ inches in width.
Ring Spinning Frame

With iron ends. Rail & roller beam; front bottom roller 1 in. diameter, middle and back roller \( \frac{3}{4} \) inch diam, all coupled with square couplings. Wast or cleaning roller under front roller. Wood saddles with adjustable weights, long flat top cleaner. Jenkins Patent self-oiling bolster & step, snarl catcher, conical Hart for concealing bobbins at each end. Gearing all ob. Driving pulley end of frame; occupies a space of \( F^5 \) inches long by \( F^5 \) inches wide. Driving pulley inches diam, should run Revs per minute.

<table>
<thead>
<tr>
<th>Spindles</th>
<th>132</th>
<th>132</th>
<th>168</th>
<th>168</th>
<th>204</th>
<th>204</th>
<th>204</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speed</td>
<td>1 1/2</td>
<td>1 1/2</td>
<td>1 1/2</td>
<td>1 1/2</td>
<td>1 1/2</td>
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</tr>
</tbody>
</table>

Boyl Ltd. 317 & 318 Walnut St. Ph.
RING FRAME TWISTER.

With Iron Mill, Beam and Stands, for 1 pair of Bottom Rollers of Iron 1½ inches in diameter cast together with square couplings, and top Roller of Iron 1½ inches in diameter cast solid with Spindle. (Cost for Spinners, Bobbins etc.) for doubling from 2 to 8 Threads to each Spindle; Tin Cylinder 6 inches in Diameter, coupled with a coupling 1½ inches in diameter, screwed together in the Middle. Occupies a space of 12 Feet - Inches long by 2 Feet 6 In. wide. Driving pulley 8 inches in diameter and should run 125 R.p.m. per minute.

24 Spindles 3 in. sp. Rings 3½ in. diam. inside, for Bob. 3 in head, 5 in Traverse.

<table>
<thead>
<tr>
<th>Units</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>48</td>
<td>5</td>
</tr>
<tr>
<td>96</td>
<td>5</td>
</tr>
<tr>
<td>128</td>
<td>5</td>
</tr>
</tbody>
</table>

£
**No 51**

**Spooling Machine.**

With iron Pulleys or Blocks 9 inches in diameter; Improved Thread Guide and Arches; for spools 6 inches long, 4 inches Head; wood Swists or Spindles for Throttle bobbins, with bobbin Box attached; and Improved Heart motion having 6 inch Traverse, occupies a space of 12 feet for 6 inches long by 12 feet wide; Driving pulleys 12 in Diameter and should run 500 per minute.

| 12 Blocks 24 Spools                      | $     |
| 15 do 30 do                              | $     |
| 25 do 45 do                              | $     |
| 30 do 60 do                              | $     |
| Swists, each                             | $     |
| Runners                                  | $     |

Lath of W.B. Bean 211 Walnut St. Phila.
No. 52

Bobbin Winder

With horizontal spindles driven with a ten cylinder for spooler bobbins. Driving pulleys 9 in. diameter and should run 200 revolutions per minute. Occupies a space of 5 feet 6 in. long by 2 feet 6 in. wide.

25 Spindles

30 Spindles

25 Spindles with eccentric gearing for winding from swifts 18 in. in diameter.

A Jenks & Son, Bridesburg, PA.
 Twenty yards in circumference, formed by 30 upright staves well braced and cross stayed inside; Heck with with 160 Eyes and creed with 10 rows of spools, and 16 spools high; Iron shaft and Wood Jack post; and is worked by steam power or by hand; occupies a space of 6 \times 7 in. inches long; by \frac{2}{3} inches wide; has driving pulleys 7 in. 8 in. Face; and should run 1 Rev. per minute.

This machine is to make warps

\begin{align*}
15 \text{ Yards circumference} & \quad \$3 \\
20 & \quad \$ \quad \text{per minute} 
\end{align*}
No. 34

Warping Machine.

This Machine is so constructed that it makes the Warp at once of any required length, and any given number of ends, from one to two thousand, thus giving it a claim of superiority over any other now in use. This Machine is made with a self-adjustable Linker, and marker with stop motion, which stops the Machine when an end breaks, and will run 6500 Yards of 1800 ends, No. 20 Hank Yarn over 10 hours. Driving pulley 12½ in. and should run 64 revolutions per minute occupies a space of 14 inches in length & 10 inches in width.
BEAMING MACHINE

with 3 friction drums 20 inches diameter with weight towers. Two
weighted Loom Hacks one of 16 pins and the other of 32 pins. Beam with 116 desirs on 40
inches Driving pulley 12 in diameter, & should run 201 revolutions per minute, occupies a space
of 20 Feet – 1 In. long by 7 Feet 3 In. wide.

| 40 | 8 |
| 48 | 8 |
| 60 | 8 |
No 56.

COP WINDER.

For winding from the skem to the shuttle bobbin,
spindles and bobbin vertical; runners for the skem, driving
pulleys 8 inches in diameter and should run 260 revolu-
tion per minute.
No. 57

Reel for Twister or Throstle Spools.

Jenks Patent for removing the skeins from the Reel without lifting the shaft.

Has open or solid Iron ends Reel. 54 inches in circumference with spindle shaft 2 3/4 inches in diameter, and Iron arms, with Bobbin box, and 40 live spindles 4 inches apart, for spools with heads, 3 inches in diameter has Regulator and Bell, occupies a space of 16 ft. - Inches long, and 3 1/2 - Inches wide. Driving pulley 10 inches in diameter. Should run 120 revolutions per minute.
This Machine is used for winding a Cone shaped Bobbin for Hosiery Knitters has 100 Spindles, 50 on each side 4 inches apart; Bobbin 8 inches by 3¾ inches in diameter; Driving pulleys 7¾ inches in diameter occupies a space of 19 Fe' long by 6 Feet 2 inches wide, and should run 1 Revolution per minute.