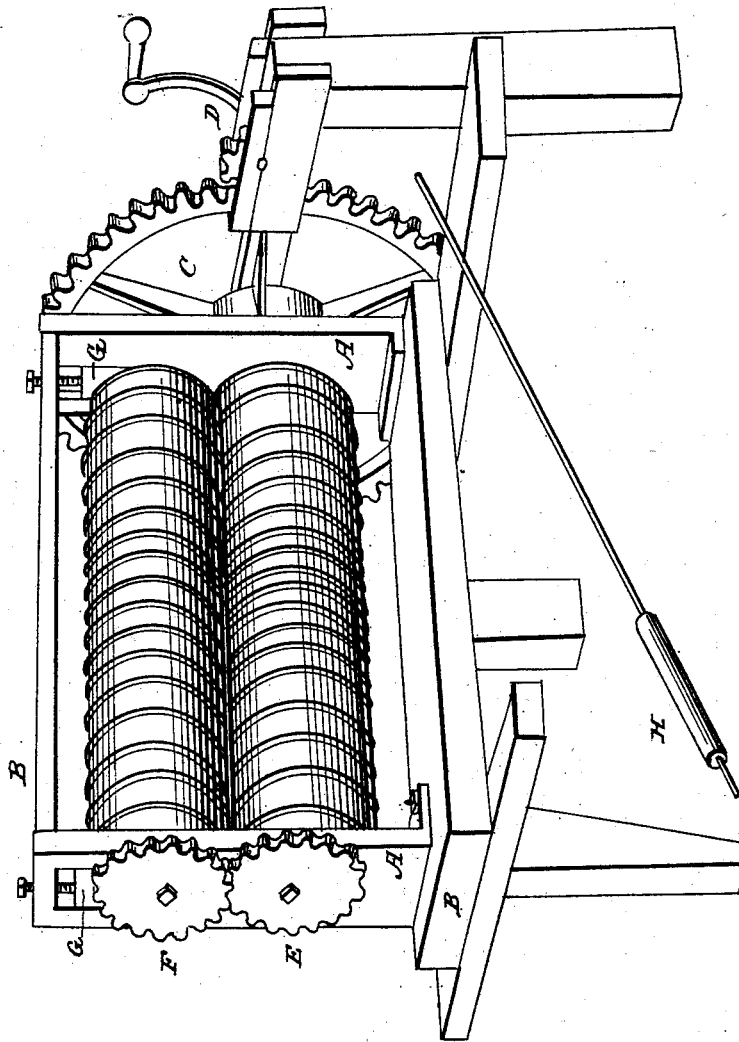


SEYDLE & WARD.

Lead Pipe Roller.

No. 862.

Patented Aug. 1, 1838.



WITNESSES:

Geo A Snyder
Thos Ward

INVENTOR.

Robt M Seydle
Lewis Ward

UNITED STATES PATENT OFFICE.

ROBERT M. SEYDLE AND LEWIS WARD, OF MILTON, PENNSYLVANIA.

MANUFACTURE OF LEADEN OR OTHER METALLIC PIPES.

Specification of Letters Patent No. 862, dated August 1, 1838.

To all whom it may concern:

Be it known that we, ROBERT M. SEYDLE and LEWIS WARD, of Milton, in Northumberland county and State of Pennsylvania, have
5 invented a new and Improved Mode of Manufacturing Leaden Pipes or Tubes; and we do hereby declare that the following is an exact description thereof, reference being had to the drawing which accompanies and
10 makes a part of this specification.

The machine employed consists of a strong frame of which the two upright portions A A are made of cast iron or other metal, connected by the wooden portions B B.
15 Supported by and revolving between the upright portions of the frame are two iron or brazen cylinders, accurately turned and encircled throughout their length by parallel grooves whose arch inward toward the centers of the cylinders forms an exact semi-
20 circle. The widest and deepest grooves are near the ends of the cylinders; the remaining grooves growing progressively narrower and more shallow as they approach the middle of the cylinders—precisely like the cylinders used in the manufacture of round
25 rolled iron. To one end of the lower cylinder is attached the cog-wheel C which is turned by the pinion and winch D. The upper cylinder is to be turned by the
30 pinion E acting upon the pinion F and its distance with respect to the lower cylinder may be adjusted by means of the screws and brazen followers at G, G.

We make a cylindrical mold of a diameter 35 to suit the larger grooves of the machine and having set in the center of this mold a polished iron mandrel, whose diameter is equal to the caliber of the pipe to be manufactured. We fill the mold with melted lead 40 which is permitted to cool around the mandrel as represented at H. We now pass the pipe inclosing the mandrel between the cylinders, beginning with the larger grooves and then successively through the smaller 45 until the pipe is reduced to the diameter required.

What we claim as our invention and discovery and desire to secure to ourselves by Letters Patent is not the rolling apparatus 50 but

The principle or mode of stretching or drawing out leaden or other metallic pipes upon a metallic mandrel by means of grooved cylinders as above described, a mode 55 whereby the sides of the pipe may be reduced to any required degree of thinness without danger of flaws in the metal or of being torn asunder as in the modes ordinarily practised.

ROBT. M. SEYDLE.
LEWIS WARD.

Witnesses:

GEO. A. SNYDER,
WM. WARD.