

J. B. LYONS.

MACHINE FOR SCOURING AND BURNISHING METALS.

No. 101,479.

Patented Apr. 5, 1870.

Fig. 1.

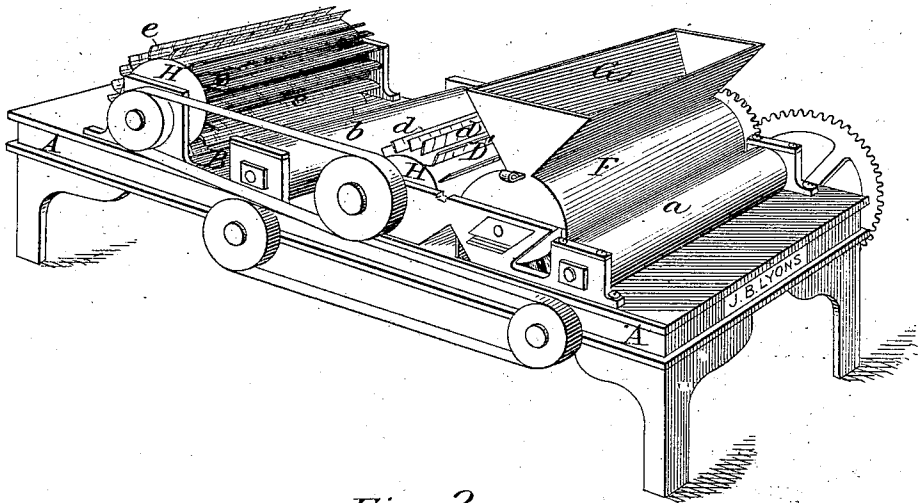
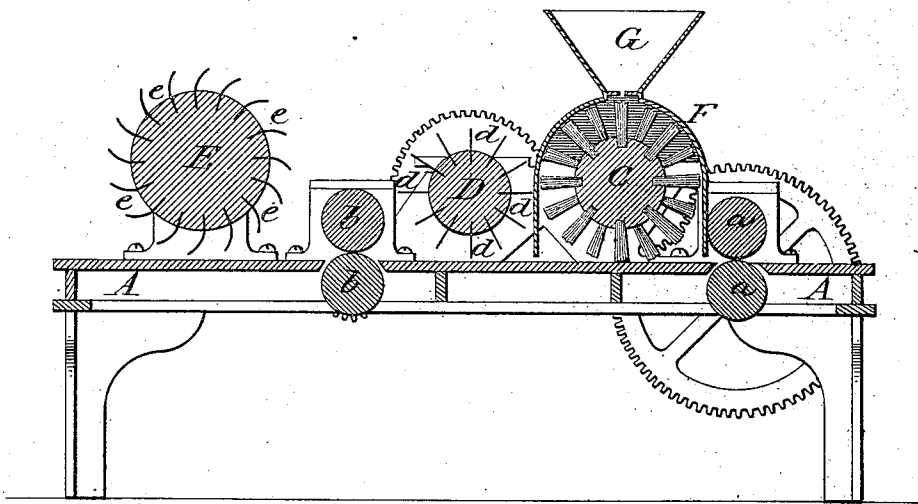


Fig. 2.



Witnesses:

Chas. A. Poole.
 J. B. Woodruff

Inventor:

Jas. B. Lyons

J. B. LYONS:

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Fig. 3.

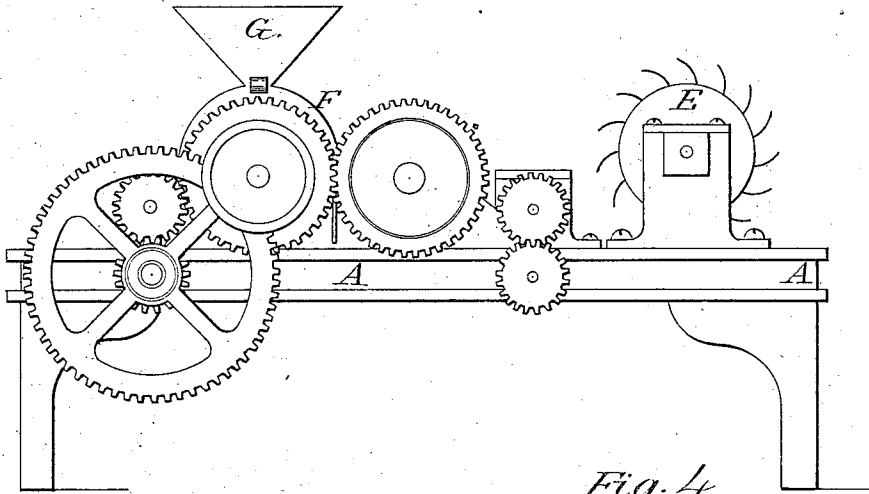


Fig. 5.

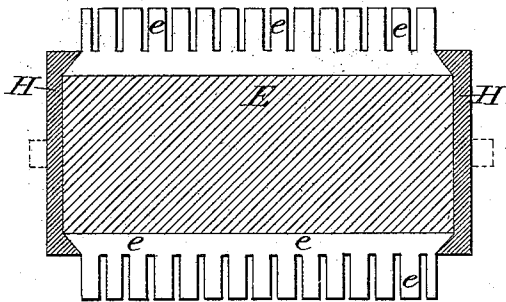
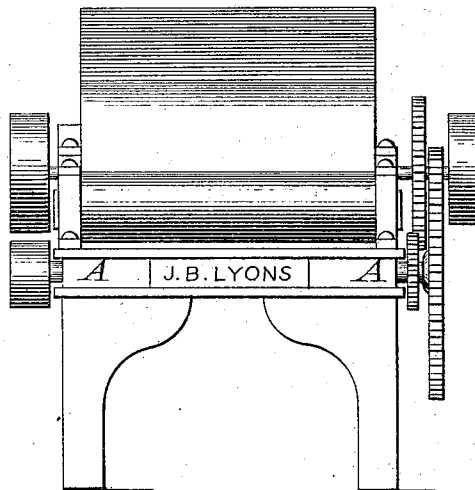


Fig. 4.



Witnesses:

Chas. H. Pool.
 J. B. Woodruff

Inventor:

Jas. B. Lyons

United States Patent Office.

JAMES B. LYONS, OF MILTON, CONNECTICUT.

Letters Patent No. 101,479, dated April 5, 1870.

IMPROVEMENT IN MACHINE FOR SCOURING AND BURNISHING METALS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JAMES B. LYONS, of Milton, in the county of Litchfield and State of Connecticut, have invented certain new and useful Improvements in Machinery for Scouring and Burnishing Metals; and the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings making a part of this specification, in which—

Figure 1, first sheet, represents a perspective view of the machine complete.

Figure 2 shows a longitudinal section through the cylindrical working parts.

Figure 3, second sheet, represents a side-view elevation, showing the gear-wheel connections, &c.

Figure 4 shows an end view of the machine, with driving-pulleys and gear.

Figure 5 shows the mode of constructing my burnishing-cylinder in a sectional view through the same.

The object of my invention is to save manual labor in cleaning, scouring, and burnishing sheet-brass and other metals.

My invention consists in the scraping and burnishing-cylinders, and the mode of constructing the same; also, in the arrangement and combination of the scouring-brush, feed-rollers, scouring and burnishing-cylinders.

To enable others to make and use my invention, I will describe it more fully, referring to the drawings and to the letters marked thereon.

The frame A A may be made of timber or of metal, of a suitable height for the convenience of handling the sheet-metal, and may be made of any desired width and length for the required purposes.

The bottom of the table, which is under the scouring-brush C and the revolving scraper D, is movable, made so as to be taken out, or let down to discharge, and be cleaned of the stuff removed from the surface.

The frame A A is provided with two sets of feed-rollers, *a a* and *b b*, which are all geared together on the outside so as to carry sheets of metal uniformly through under the scouring-brush C, the scraper D, and, when desired, the revolving burnishing-cylinder E, which is mounted on the rear end of the machine.

The scouring-brush C is incased with a sheet-metal cover, F, on the top of which is a hopper, G, in which sand or other material may be placed, and distributed

in any desired quantity, either wet or dry, for scouring, the case F preventing the dust from being thrown off and scattered about the premises.

The scraper-cylinder D is constructed by making combs *d d d* of sheet-steel, and inserting them in kerfs made in a roller, and securing them with caps H H, as shown in fig. 5. The scraper-blades *d d* may be two inches, more or less, in width, and of sufficient stiffness to effect the purpose. The journals of the cylinder D are hung in movable boxes, so that the scraper-blades *d d* can be brought to bear on the metal when they become worn by use.

The burnishing-cylinder E is constructed in the same manner as the scraper-cylinder D, only the comb-plates or blades *e e e* are of greater width, they being nine inches, more or less, so that they will spring and yield to the surface of the metal, they being curved so as to take a drawing stroke over the surface as it progresses forward, thus planishing and giving a greater brilliancy than can be produced by any other means that has yet come to my knowledge.

Duplicate scraping and burnishing-cylinders may be so arranged to operate underneath those above described as to scrape and burnish both sides of plate or sheet metal at the same time, thus effecting a saving of one-half of the time and expense of cleaning and finishing roll-brass, sheet-copper, zinc, sheet-iron, plate-steel, or any composition of metal used in the arts or manufactures.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The revolving scraper-cylinder D, as constructed, for scraping and cleaning sheet-metals, substantially as herein described.
2. The burnishing-cylinder E, for planishing the surface of metals, as and for the purposes herein set forth.
3. The feed-rollers *a a* and *b b*, the scouring-brush C, scraping-cylinder D, and burnisher E, all combined and arranged to operate in the manner herein described, and for the purposes specified.

JAS. B. LYONS.

Witnesses:

EDM. F. BROWN,
J. B. WOODRUFF.