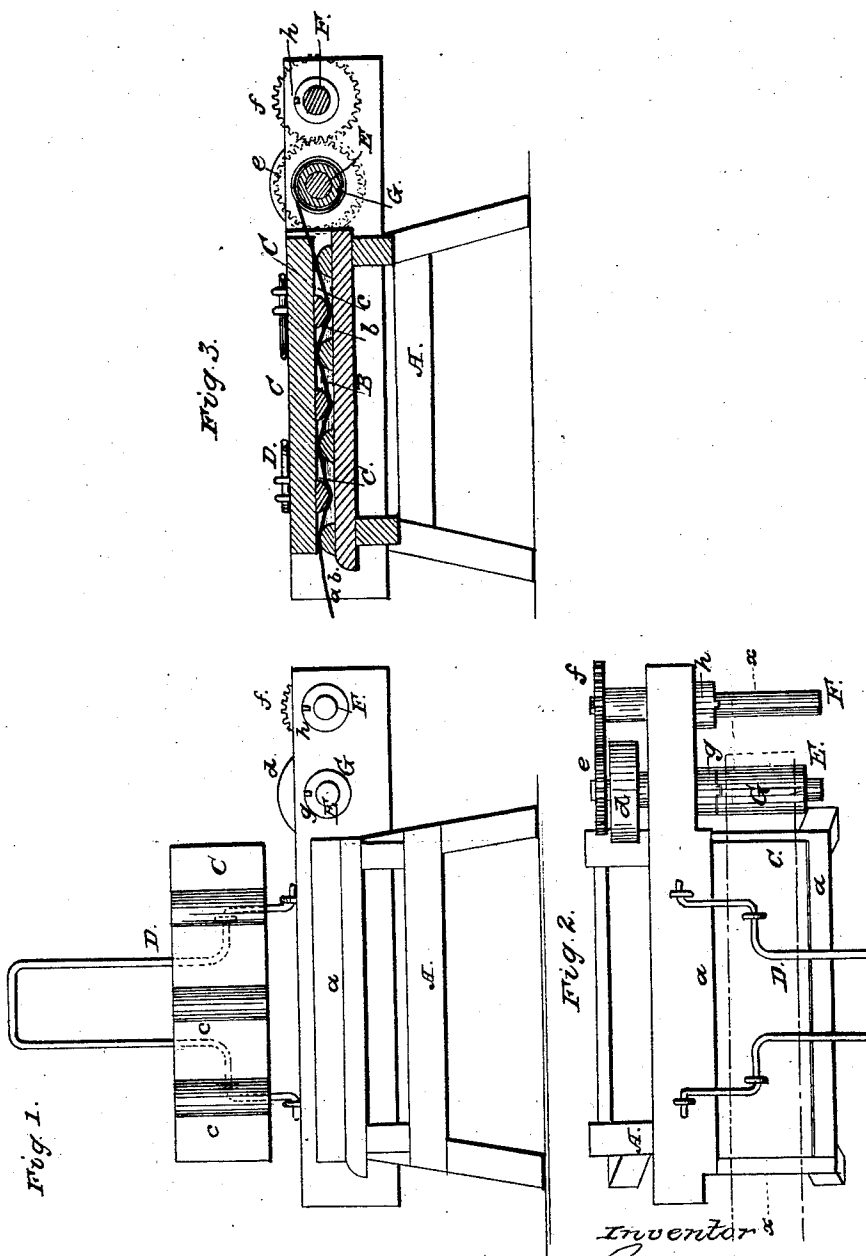


H. TODD.

Polishing Sheet Metal.

No. 62,703.

Patented March 5, 1867.



Witnesses
J. W. Corbin
L. W. Reed

Inventor
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Per his Attorneys
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United States Patent Office.

HENRY TODD, OF BRIDGEPORT, CONNECTICUT, ASSIGNOR TO THE BRIDGE-
PORT BRASS COMPANY.

Letters Patent No. 62,703, dated March 5, 1867.

IMPROVEMENT IN MACHINES FOR POLISHING SHEET 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, HENRY TODD, of Bridgeport, in the county of Fairfield, and State of Connecticut, have invented a certain new and useful Improvement on Machines for Scouring Sheet Brass and other Metals or Materials, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, forming part of this specification, and in which—

Figure 1 represents a side elevation of a machine constructed according to my improvement, in its open condition.

Figure 2, a plan of the same closed, with a sheet of brass in the act of being scoured; and

Figure 3, a vertical section through the line *x x* in fig. 2.

Like letters indicate like parts throughout the several figures.

The nature of my invention, which is more especially designed for scouring sheet brass before polishing it by the finishing rolls, consists in a novel construction of scouring trough and presser, forming fixed surfaces of a corrugated or other suitable character, holding the scouring material and through between which the sheet of brass is drawn under pressure by winding it on a rotating sleeve made removable from its shaft, and capable of being fitted on to a reversely-revolving shaft, for the purpose of detaching the tightly-wound sheet from said sleeve to admit of its being afterwards passed through the finishing rolls.

Referring to the accompanying drawing, A represents the frame of the machine, which may be of any suitable description. B is a trough, having sides, *a a*, and strips or projections, *b*, preferably of a rounded character, across its bottom, and which may be of wood or other material; and C is a presser, shutting down upon or within the trough, having similar strips, *c*, arranged to lie between the lower strips *b*, or, instead of the strips *b c*, the interior faces of the trough and presser, which form fixed surfaces, may be of a regular waved or corrugated construction, to permit of a like passage of the sheet in between them. The presser C may either be hinged in a transversely rocking or loose manner by a lever, D, to the frame, so as to admit of its accommodating itself to a parallelism with the trough, and of weight being thrown on or applied to it, or it may be raised or lowered, and its pressure adjusted by means of a screw arranged to occupy a vertical position over it. E F are transverse shafts situated at one end of the machine, outside the trough and presser. These shafts, of which E may be the driver, by means of a pulley, *d*, are rotated in opposite directions, and the outer shaft F preferably the fastest, by gears, *e f*, or otherwise. On either of the inner overhanging portions of these shafts, according to the operation to be performed, a sleeve, G, fits by sliding it thereon and causing it to lock with a key, *g* or *h*, so as to be rotated by such one of the shafts it is fitted on to.

Supposing sand and water or other suitable scouring material to be supplied the trough, or it may be tow or other soft material saturated with the scouring substance furnished the trough and presser, and the sheet of brass arranged to lie in or through such scouring material and in between the trough and presser, with suitable weight or force applied to the latter, then, by drawing on the one end of the sheet, and hitching it on to or giving it bight on the sleeve G, arranged to rotate with the shaft E, and during such operation forming part of it, said sheet will be forcibly drawn through the ribbed or corrugated scouring surfaces of the trough and presser, and scouring the material contained between them by the rotation of the sleeve G on which the scoured sheet tightly winds or wraps. The sleeve G with the sheet on it is then slipped off the shaft E and fitted on to gear with the reversely-rotating shaft F, when, by slightly pressing on the sheet, it will loosen itself so as to admit of being easily slipped off from the sleeve, when it may be removed to the finishing rolls.

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

The combination of the trough and presser B and C with the rotating shaft E, arranged to draw the sheet through the scouring surfaces of the trough and presser, substantially as specified; also, in combination with the same, the removable sleeve G, and reversely-rotating shafts E and F, essentially as and for the purposes herein set forth.

HENRY TODD.

Witnesses:

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