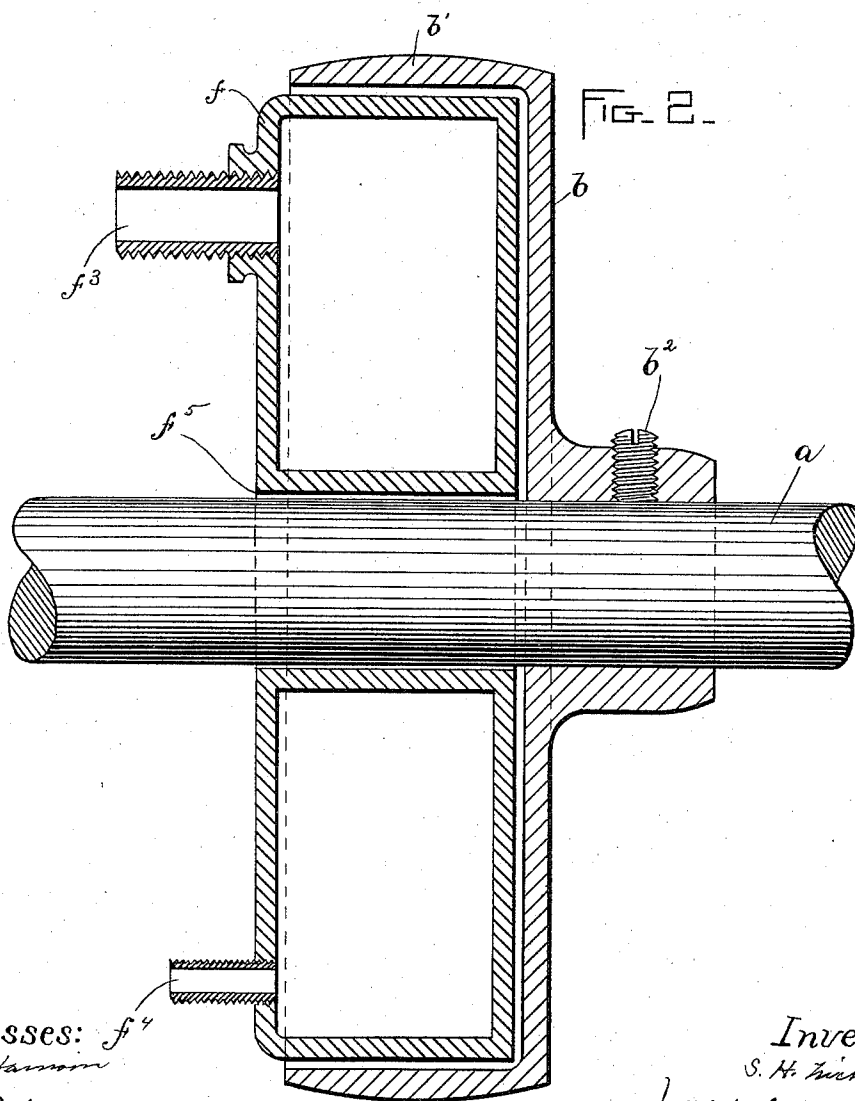
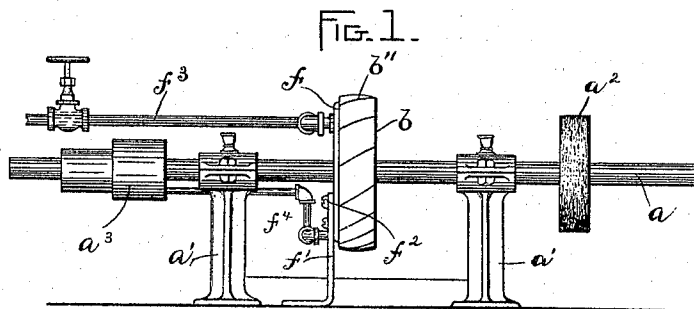


S. H. NICHOLS.
BURNISHING MACHINE.

Patented Feb. 23, 1897



Witnesses: f⁴
A. D. Hanson
A. Adams

Inventor:
S. H. Nichols
by Wright, Brown & Quincy
Atty.

UNITED STATES PATENT OFFICE.

SAMUEL H. NICHOLS, OF BROCKTON, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO OSCAR A. CAMPBELL, JR., OF SAME PLACE.

BURNISHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 577,823, dated February 23, 1897.

Application filed April 8, 1896. Serial No. 586,694. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL H. NICHOLS, of Brockton, in the county of Plymouth and State of Massachusetts, have invented certain new and useful Improvements in Burnishing-Machines, of which the following is a specification.

This invention has for its object the production of a new and improved burnishing-machine; and it consists in the novel features of construction and relative arrangement of parts hereinafter fully described in the specification, clearly illustrated in the drawings, and particularly pointed out in the claims.

Reference is to be had to the accompanying sheet of drawings, forming a part of this application, in which like characters indicate like parts wherever they occur.

Figure 1 represents a side elevation of a machine constructed in accordance with my invention. Fig. 2 represents a view similar to Fig. 1, showing the steam-drum and burnishing-tool in section, the shaft in full lines, and the other parts omitted.

Referring to the drawings, in the embodiment of my invention therein shown and selected by me for the purpose of illustrating my invention a represents a shaft mounted in bearings formed in the ends of standards a' . a^2 represents a brush carried by said shaft. a^3 represents a pulley by which power may be transmitted to the said shaft by any suitable belt. (Not shown.) b represents a burnishing-tool secured to said shaft by a set-screw b^2 . This tool is composed of a disk formed with an annular flange b' , surrounding and overhanging a space in which is arranged a steam-drum f . The surface of the flange b' may be formed to have any desired configuration, depending upon the shape of the article which it is desired to burnish. The surface is here shown as convex, although it might be concave or flat without departing from the spirit and scope of my invention.

The steam-drum f (here shown as a hollow chamber) is supported by legs f' , that at one end rest on the floor or any other suitable support and at the other ends are connected by screws f^2 (see Fig. 1) to the drum. This drum is formed with a central aperture f^5 , in which the shaft b is arranged, the aperture

f^5 being larger than the shaft, so that the drum is not affected by the rotation of the latter.

$f^3 f^4$ represent pipes by which the steam can be introduced into the drum and the exhaust returned to the steam-generator. (Not shown.) By this construction it will be seen that I am enabled to conduct the heat directly to the flange that constitutes the working part of the burnishing-tool to heat the same, while the tool will rotate independently of the steam-drum, the latter remaining stationary and not requiring any expensive packing, such as would be necessitated for the joints were the drum itself rotated.

The surface of the flange b' may be, if desired, provided with grooves b^{11} .

The brush a^2 forms no part of my invention, but merely an adjunct to be used in clearing the article to be burnished from dust and dirt.

It is to be noted that the steam-drum is of annular form and its periphery is contiguous to the inner surface of the burnishing-flange throughout the extent of the latter, and it is further to be noted that the inlet and outlet pipes communicate with the interior of the drum at diametrically opposite points. It will be readily seen that the above-noted features of construction insure the uniform heating of the burnishing-flange.

Having thus explained the nature of my invention and described a way of constructing and using the same, though without attempting to set forth all of the ways in which it may be made or all the modes of its use, what I claim, and desire to secure by Letters Patent, is—

1. A burnishing-machine comprising a rotary shaft carrying affixed to it a disk with an annular marginal burnishing-flange; a stationary steam-drum arranged within said flange with its periphery in close proximity thereto, said drum being of annular form to loosely surround the shaft and form a continuous-circular passage for steam; and inlet and outlet pipes attached to and communicating with the interior of said drum at diametrically opposite points.

2. A burnishing-machine comprising a rotary shaft carrying affixed to it a disk with

an annular marginal burnishing-flange; a stationary steam-drum arranged within said flange with its periphery in close proximity thereto, said drum being of annular form to
5 loosely surround the shaft and form a continuous circular passage for steam, and inlet and outlet pipes attached to and communicating with the interior of said drum.

3. A burnishing-machine comprising a rotary shaft carrying affixed to it a disk with
10 an annular marginal burnishing-flange; a steam-drum arranged within said flange with its periphery in close proximity thereto, said drum being of annular form to loosely sur-

round the shaft and form a continuous circular passage for steam; inlet and outlet pipes attached to and communicating with the interior of said drum; and one or more standards fixedly supporting the drum, substantially as described. 15 20

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 7th day of March, A. D. 1896.

SAMUEL H. NICHOLS.

Witnesses:

C. F. BROWN,
A. D. HARRISON.