3 Sheets—Sheet 1.

J. P. MOLLIERE.

MACHINE FOR POLISHING THE EDGES OF SHOE SOLES.

No. 13,950. Patented Dec. 18, 1855.

Fig. 1.

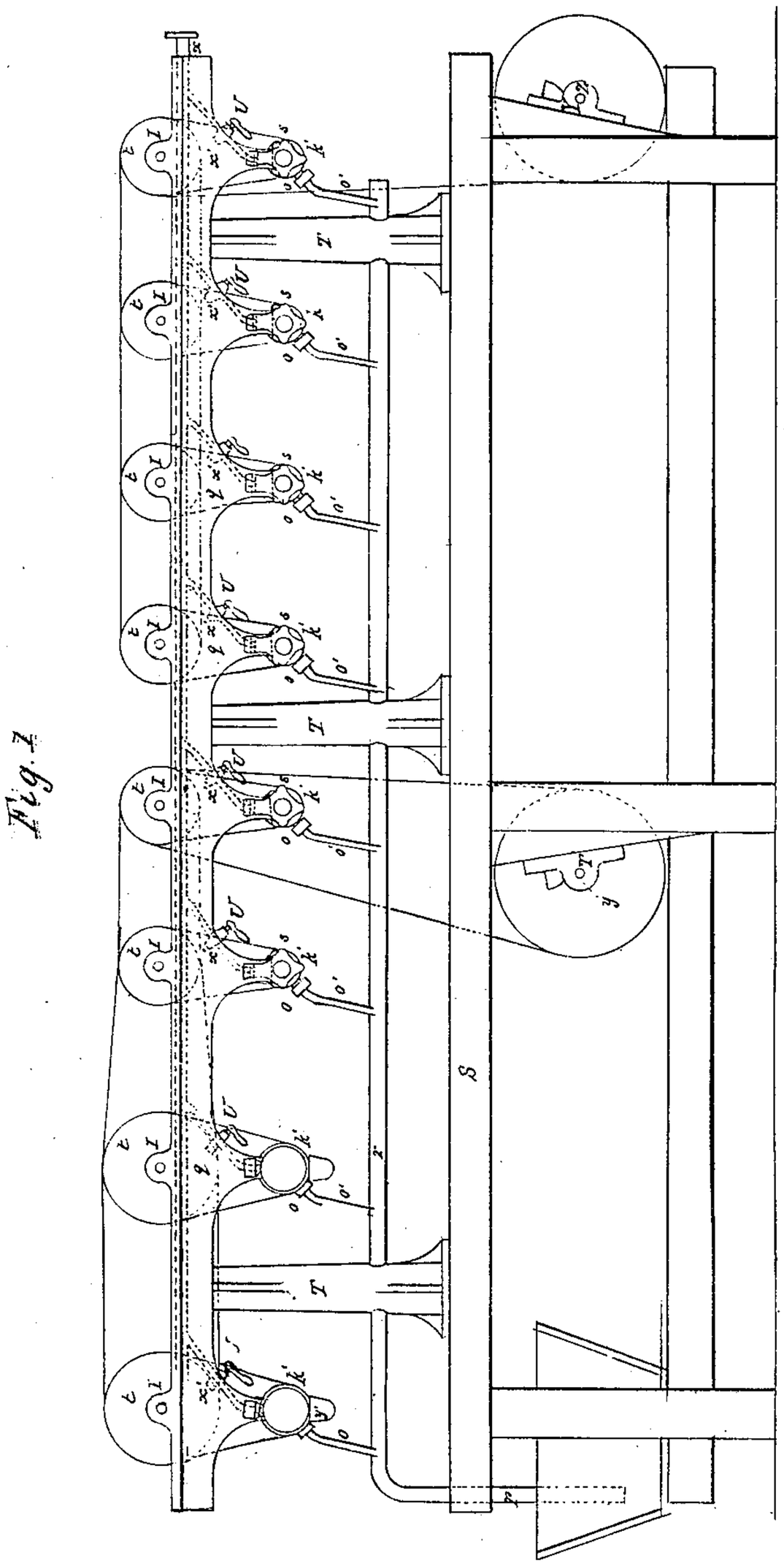

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Fig. 2

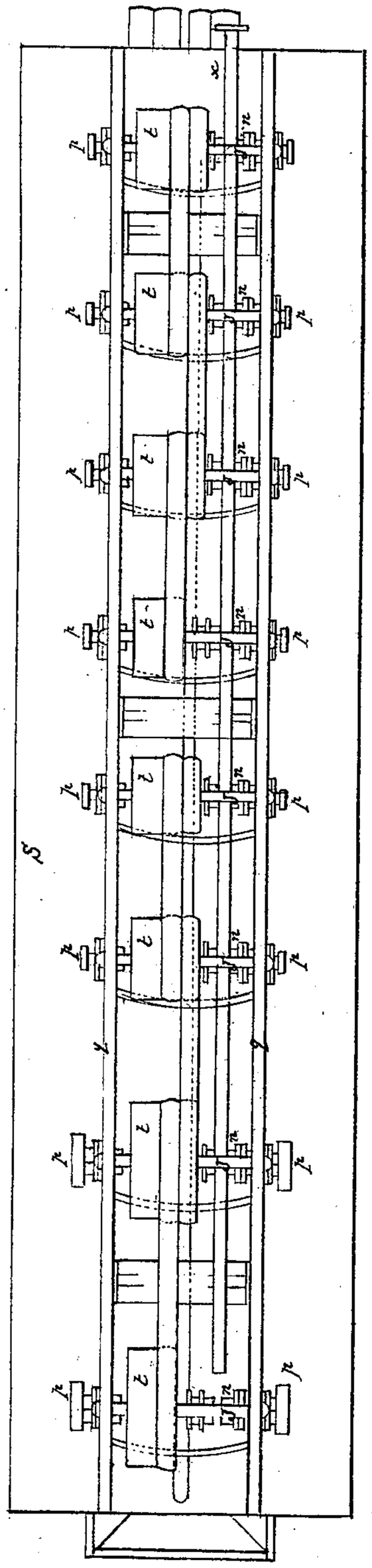


Fig. 5

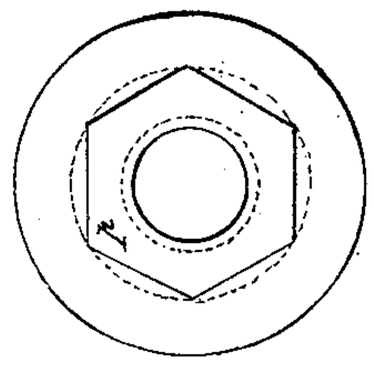
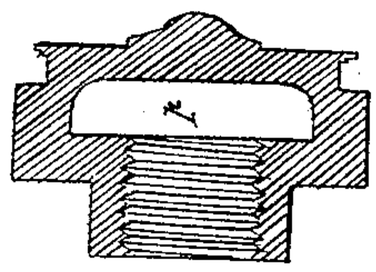


Fig. 4



Witnesses

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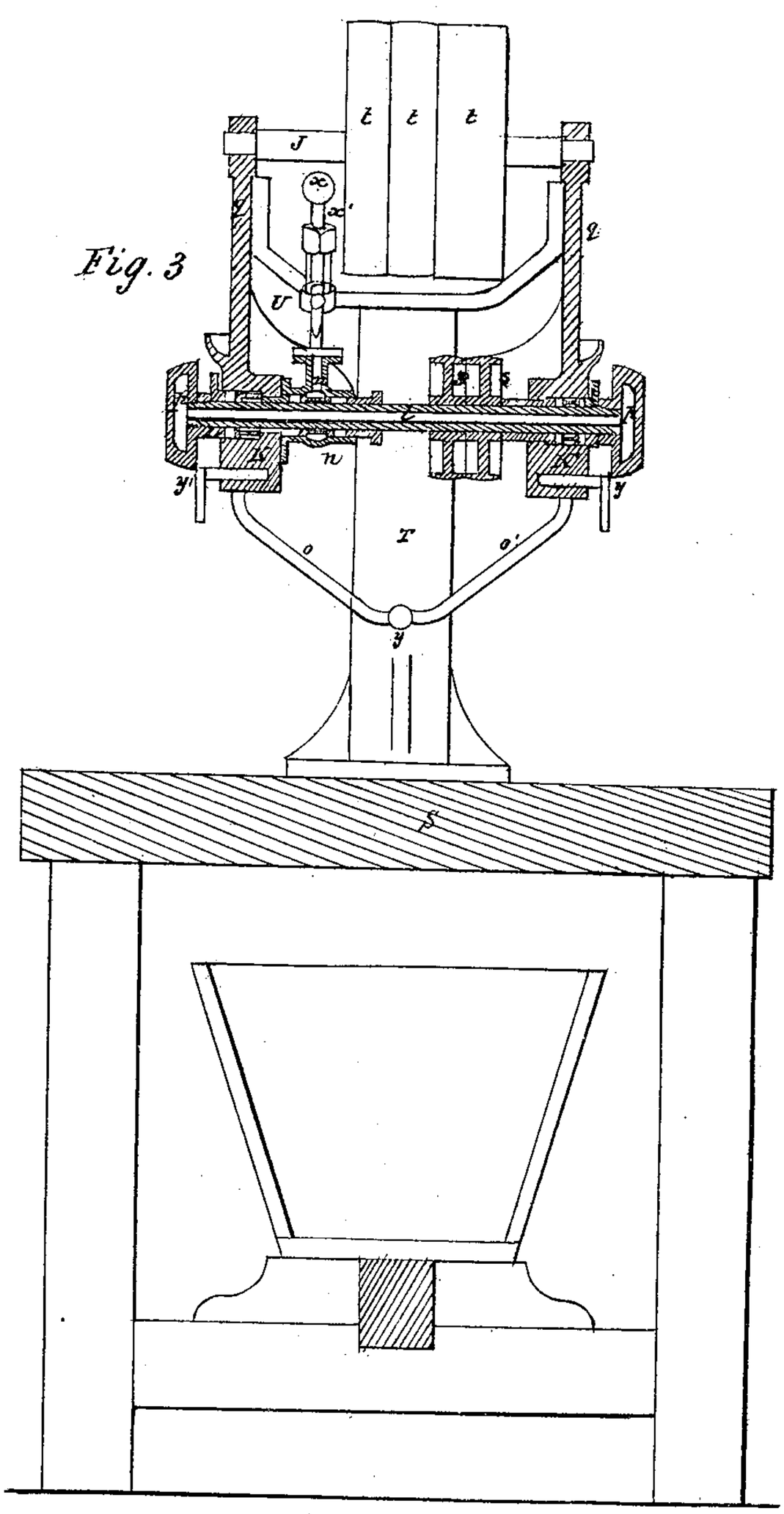
Fig. 3



L. Fesquet
J. Bonin

Molliere

UNITED STATES PATENT OFFICE.

JEAN PIERRE MOLLIERE, OF LYON, FRANCE.

MACHINE FOR POLISHING AND BURNISHING THE EDGES OF SOLES AND HEELS OF BOOTS AND SHOES.

Specification of Letters Patent No. 13,950, dated December 18, 1855.

To all whom it may concern:

Be it known that I, JEAN PIERRE MOLLIERE, of Lyon, in France, have invented a new and useful Machine for Polishing and Burnishing the Edges of Soles and Heels of Boots and Shoes with Either Hot or Cold Tools; and I do hereby declare that the following is a full, clear, and exact description of the construction of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a longitudinal section of the machine; Fig. 2, a top view; Fig. 3, a cross section, and Figs. 4 and 5 sections of the tools used, and in which the letters of reference thereon are explained as below.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

This machine is intended for polishing and burnishing with hot or cold tools, (hot ones are preferable,) the edges of heels and soles of boots and shoes.

It consists of a wooden board S, mounted upon six wooden feet, at equal distances apart, and stayed by three cross ties, connected by a fourth one, bolted down thereupon. Upon this board are fastened by bolts three columns T, with claw like branches, pierced with holes. On the right and left of these columns are bolted two cast-iron slabs *q*, one on one side, and one on the other, carrying on the upper edge sixteen bearers *i*, armed with pillows, in which turn eight iron shafts J, and in addition thereto, on the lower side, sixteen other bearers K′, in which turn eight hollow iron shafts *l*. Each one of these latter bearers has a steam chest, which incloses a number of bronze rings with their packing. Each steam chest has above and outside of it, an oil cup for oiling the shafts. Close by the steam chests of the slab *q*, is fastened by screws, another steam chest *n*, of bronze, carrying above it a small tube, with a flange for making a joint. This bronze steam chest has two packings, separated by a ring with an opening in it; the whole is closed by a stuffing box. The steam, coming from the boiler, passes through the copper tube *x*, and, by the branches *x′*, fastened to this tube, reaches the separating ring in the bronze steam chest, whence it finds its way, through these openings, into the hollow shaft, and thence into the chamber of each tool *p*, screwed to each extremity of the shaft; it thus escapes through two little holes, drilled in the shell of the hollow shaft, and comes into another separating ring with openings which is placed between two packings, closed by a stuffing box *o*, screwed against each steam chest of the slabs. The steam arrived in this ring, escapes by a hole opening into a little tube *o′*, which conducts it into the large tube *z* and thence into a tank. The hollow shafts carry in their middle two pulleys *s* (Fig. 3), one of which is fast and the other loose. This last serves to stop the work of the tool, by receiving the belt upon it. These pulleys receive their movement from the pulleys *t* of the upper shafts of the apparatus, which themselves, receive it from one of the pulleys of each of the two shafts *y* and *z*, turning in the bearers T′, V, fastened to the feet of the bench. To let the steam into the chamber of the tools, when it is only wanted, the tubes of the branches carry each one, a valve cock U, which you open or shut at pleasure.

The heating medium may be either steam, hot air or hot water, though steam is preferable, because the temperature of the tools can be better regulated by its use, than by any other means. But the heating medium may be dispensed with, in which case the tools *p* are used cold, and the same result is obtained, as when they are hot, but the latter are preferable. When you wish to polish or burnish the edge of a sole or heel, you present it to the polishing or burnishing iron. The iron or tool, revolving rapidly, gives the edge presented to it and gently borne upon it, a perfect polish and burnish. The burnishers or polishers vary a quarter of a millimeter in size, so as to enable the workman to polish and burnish any form of sole and heel, whatever be its thickness. The tools for polishing or burnishing the counter or shank are made so as to act promptly upon that part of the sole. Any kind of mold or impression can be given to the upper edge of the heel, by tools to correspond. The molders and burnishers are distributed upon the hollow steam shafts, according to the requirements of the work.

What I claim as my invention and desire

to secure by Letters Patent, of even date with the French patent for the same invention, is,

The rotary hollow tools *p*, capable of being heated to any degree by the admission of steam or other heating medium, into their chambers, through the hollow shafts on which they turn, from the regulating valve cocks U, for the purpose of polishing and burnishing the edges of soles and heels of boots and shoes, the whole constructed and operated substantially as herein described.

J. P. MOLLIERE.

Witnesses:
W. G. SNETHEN,
P. J. MAISCELLE.