

(Model.)

2 Sheets—Sheet 1.

B. J. TAYMAN & J. BENNOR.
Machine for Burnishing the Edges of Soles.

No. 234,504.

Patented Nov. 16, 1880.

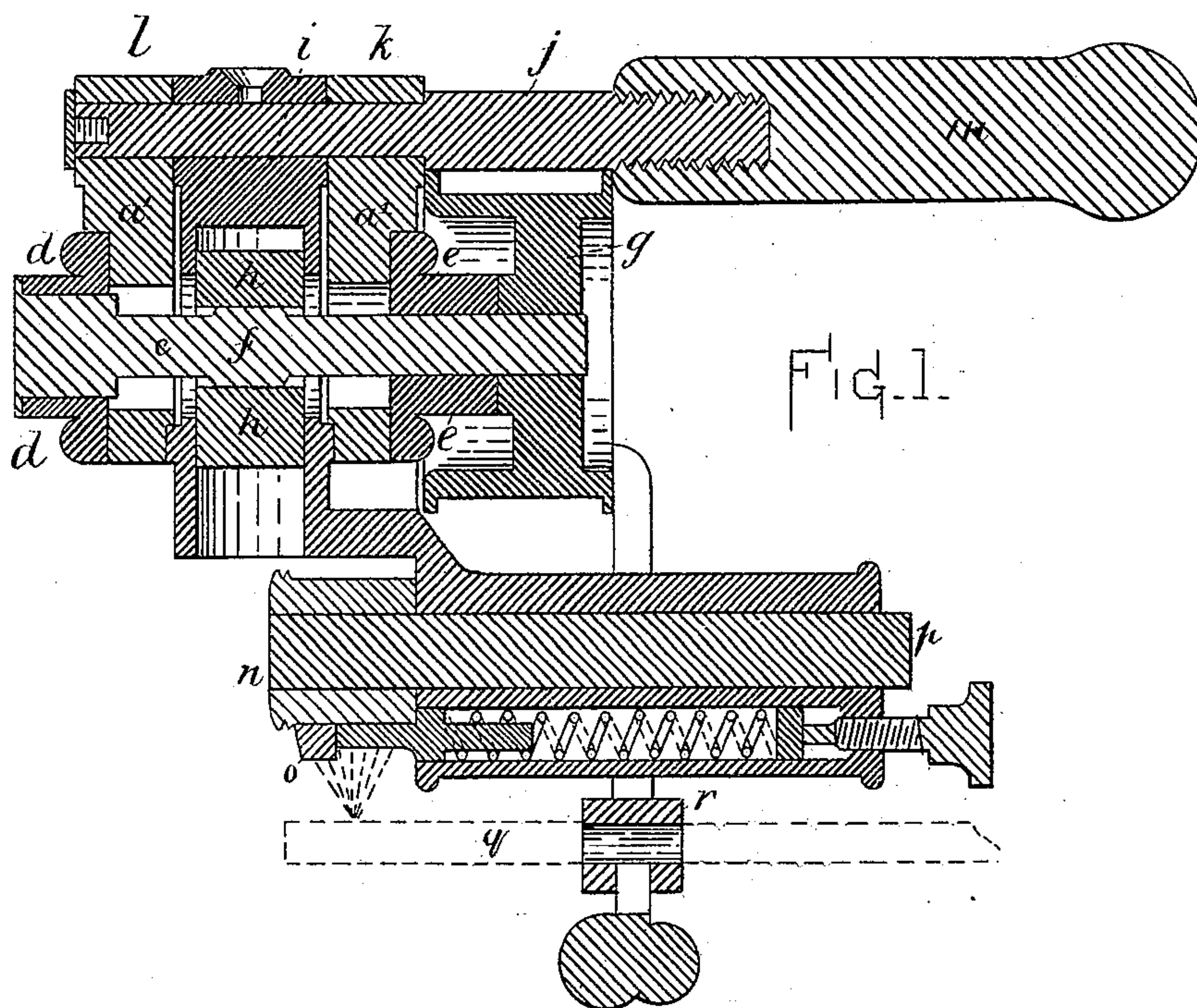


Fig. 1.

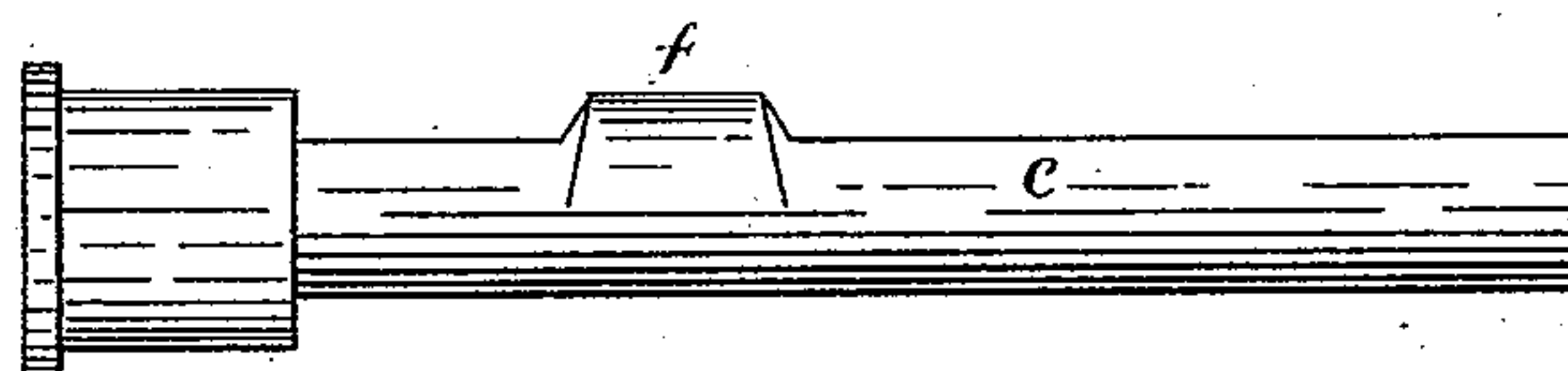


Fig. 4.

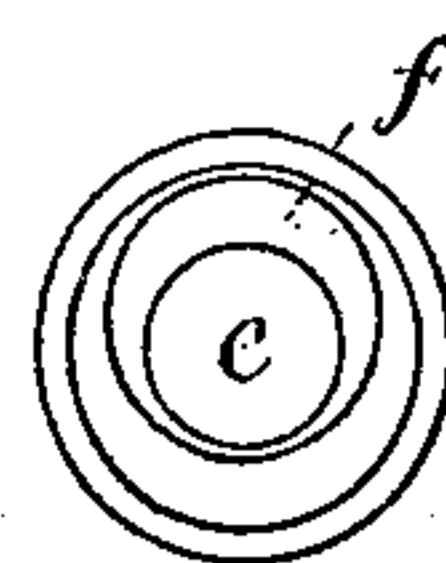


Fig. 5.

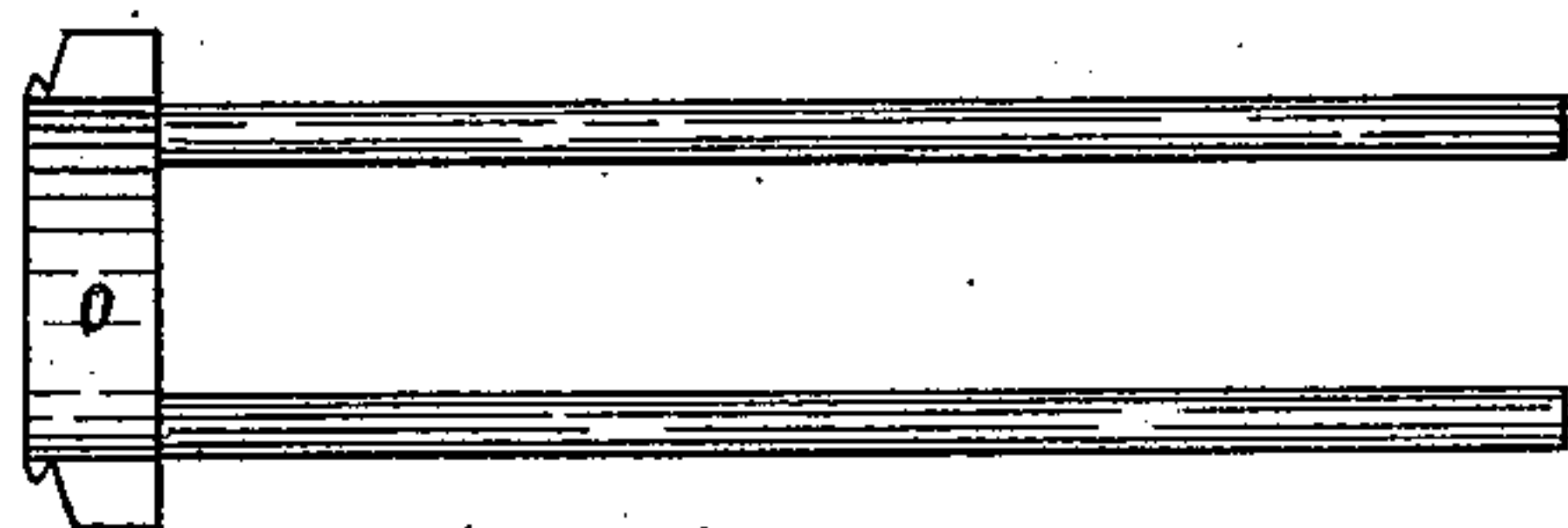


Fig. 2.



Fig. 3.

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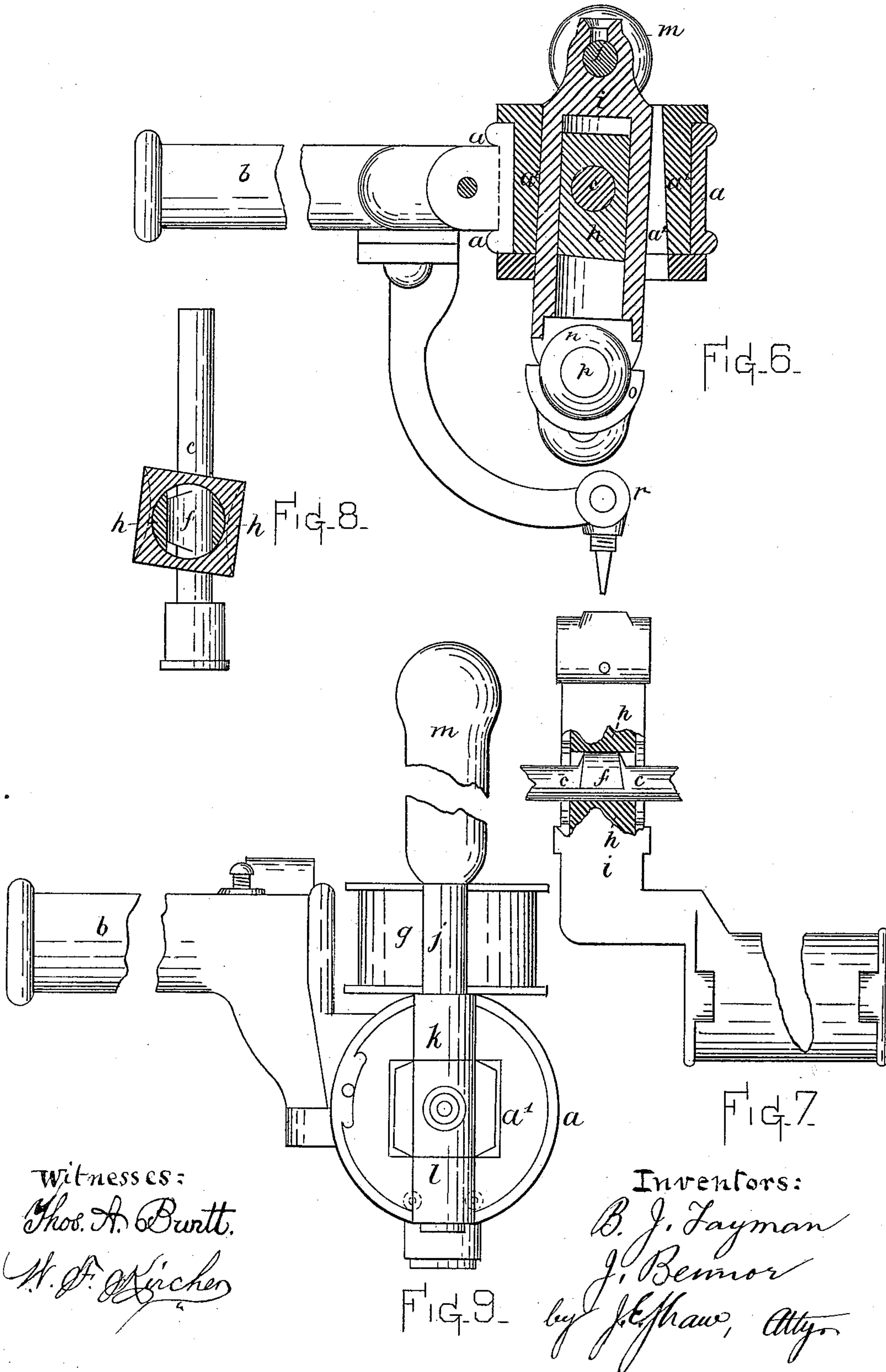
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UNITED STATES PATENT OFFICE.

BENJAMIN J. TAYMAN AND JOSEPH BENNOR, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNORS, BY MESNE ASSIGNMENT, TO GEORGE H. P. FLAGG, OF BOSTON, MASSACHUSETTS.

MACHINE FOR BURNISHING THE EDGES OF SOLES.

SPECIFICATION forming part of Letters Patent No. 234,504, dated November 16, 1880.

Application filed October 6, 1880. (Model.)

To all whom it may concern:

Be it known that we, BENJAMIN J. TAYMAN and JOSEPH BENNOR, both of Philadelphia, Pennsylvania, have invented an Improvement in Machines for Burnishing the Edges of Soles, of which the following is a specification.

This improvement consists in mechanism for imparting the required reciprocating motion to the tool in such a way that the carriage to which the tool is fast may change its relation to the eccentric-block, through which motion is communicated to the carriage from the driving-shaft, this mechanism consisting of a cylindrical eccentric-block having a cylindrical hole bored through it for the eccentric of the shaft, the block being in a cylindrical box formed in the tool-carriage. The eccentric part of the shaft, moving in a circle around the axis of the shaft, throws the cylindrical block from side to side, and thereby reciprocates the cylindrical box in which the block moves up and down, and as that box is a part of the tool-carriage, that carriage is also reciprocated in its slides. The block being a cylinder, and its box being also cylindrical, the box can turn around the axis of the cylindrical block to an extent sufficient for all practical purposes while the machine is moving rapidly.

In the drawings, Figure 1 is a vertical section of the complete machine. Figs. 2, 3, 4, and 5 represent details on an enlarged scale. Fig. 6 is a side view, partly in section. Figs. 7 and 8 are details, illustrating the arrangement of the cylindrical eccentric-block in the tool-carriage. Fig. 9 is a plan of the machine.

In the drawings, *c* represents a shaft with suitable bearings *d* *e*, and having in it an eccentric, *f*. This eccentric fits a hole through the eccentric-block *h*, and this block is a cylinder and fits in a cylindrical box formed in the tool-carrier *i*, the tool *n* being fast to *i*, so that the motion of *i* shall give motion to the tool. The shaft *c* is revolved rapidly by the

pulley *g*, and the eccentric *f* reciprocates its block *h* and tool-carrier *i*.

Heretofore in these machines the eccentric-block was rectangular in cross-section and fitted in a box of the same shape in the tool-carrier, and consequently the tool-carrier could not be moved at all except forward and back. In our machine this block is a cylinder, and its box is also cylindrical, so that the box can move within certain limits on the axis of the cylindrical block in either direction, and it is this which constitutes our invention.

The tool-carrier *i* is mounted in slides formed in the ring *a'*, and both the tool-carrier *i* and ring *a'* are provided with apertures, so that both can move within certain limits on the axis of the eccentric-block *h*, as shown in Figs. 1 and 7 and at *a''* in Fig. 6. The tool-carrier is also secured to *a'* by the shaft *j*, mounted in standards *k* and *l*, fast to *a'*, and this shaft *j* carries the handle *m*.

The ring *a'* is mounted in base *a*, which is fast to the socket *b*, which serves to connect the base *a* with the arm of the machine. (Not shown, as it has been patented, the present invention relating only to the means for reciprocating the burnishing-tool.)

The burnishing-iron *n*, Fig. 1, the crescent-shaped guard *o*, and its guide-bars, Figs. 1, 2, and 3, are in construction similar to the like parts described and claimed in the said Letters Patent No. 162,206, except that the shaft *p* of the burnishing-iron is solid, while the like shaft described in the said patent is shown to be hollow, to admit of the introduction of gas-pipe into it.

q, Fig. 1, is the gas-pipe, by which a flame of gas is directed on the exterior of the burnishing-iron *n*. The pipe *q* is supported by the bracket *r*.

The mechanism consisting of the cylindrical block *h*, eccentric *f*, shaft *e*, tool-carrier *i*, and its support *a'* may be used in combination for giving motion to a burnishing-tool for polishing paper or for other purposes. In this case

ring *a'* and base *a* are preferably made in one piece.

What we claim as our invention is—

1. In combination, the shaft *c* in fixed bearings, eccentric-block *h*, made cylindrical, and the tool-carrier *i*, having a cylindrical box formed in it for the cylindrical eccentric-block *h*, whereby the tool-carrier may turn on the axis of the eccentric-block as required while that block is reciprocated by the shaft.

2. In combination, shaft *c*, cylindrical eccentric-block *h*, tool-carrier *i*, ring *a'*, shaft *j*, and base *a*, substantially as described.

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Witnesses:

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