

(No Model.)

M. DELOHERY.
APPARATUS FOR DYEING HATS.

No. 438,609.

Patented Oct. 21, 1890.

Fig. 1.

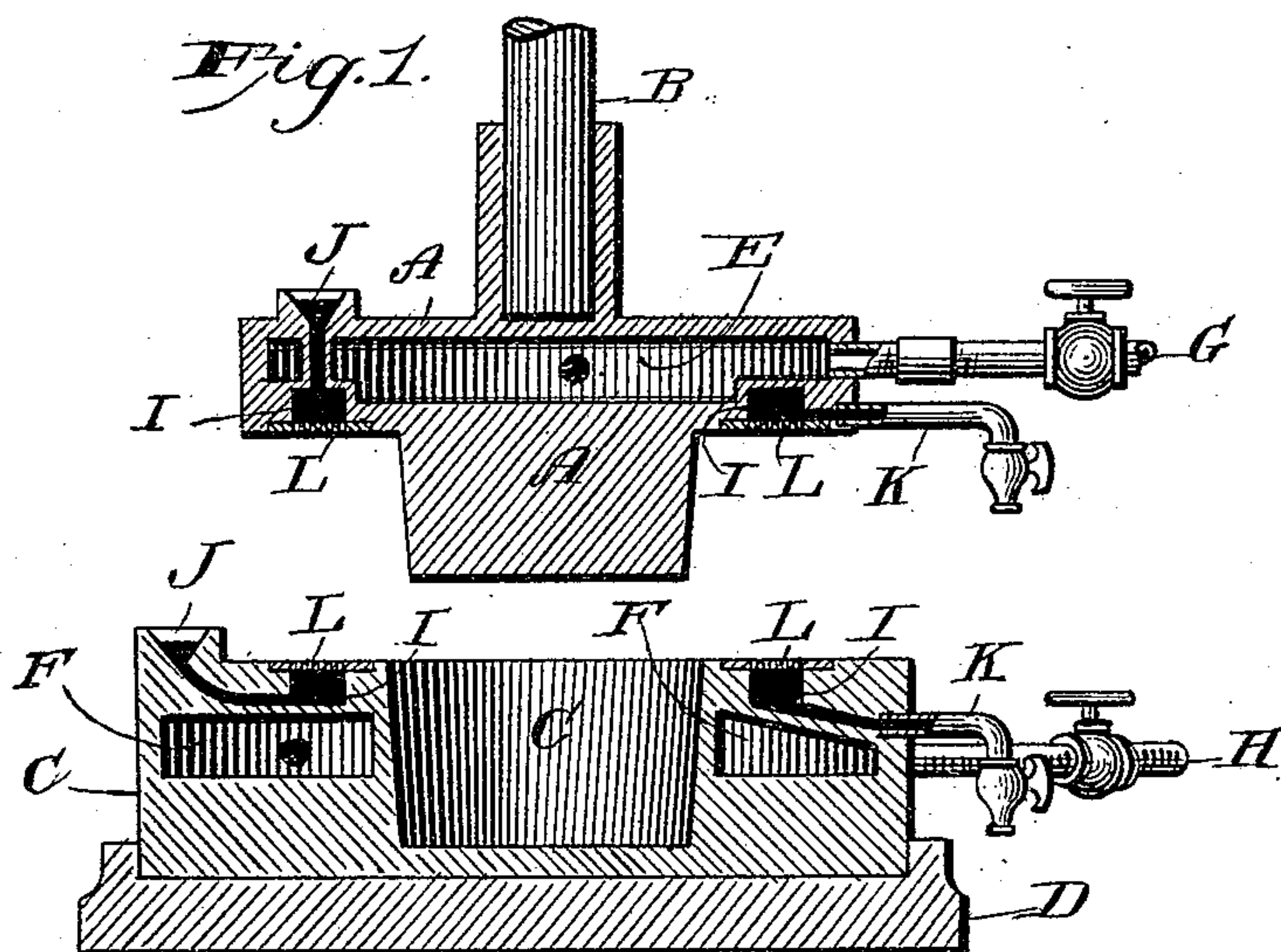


Fig. 2.

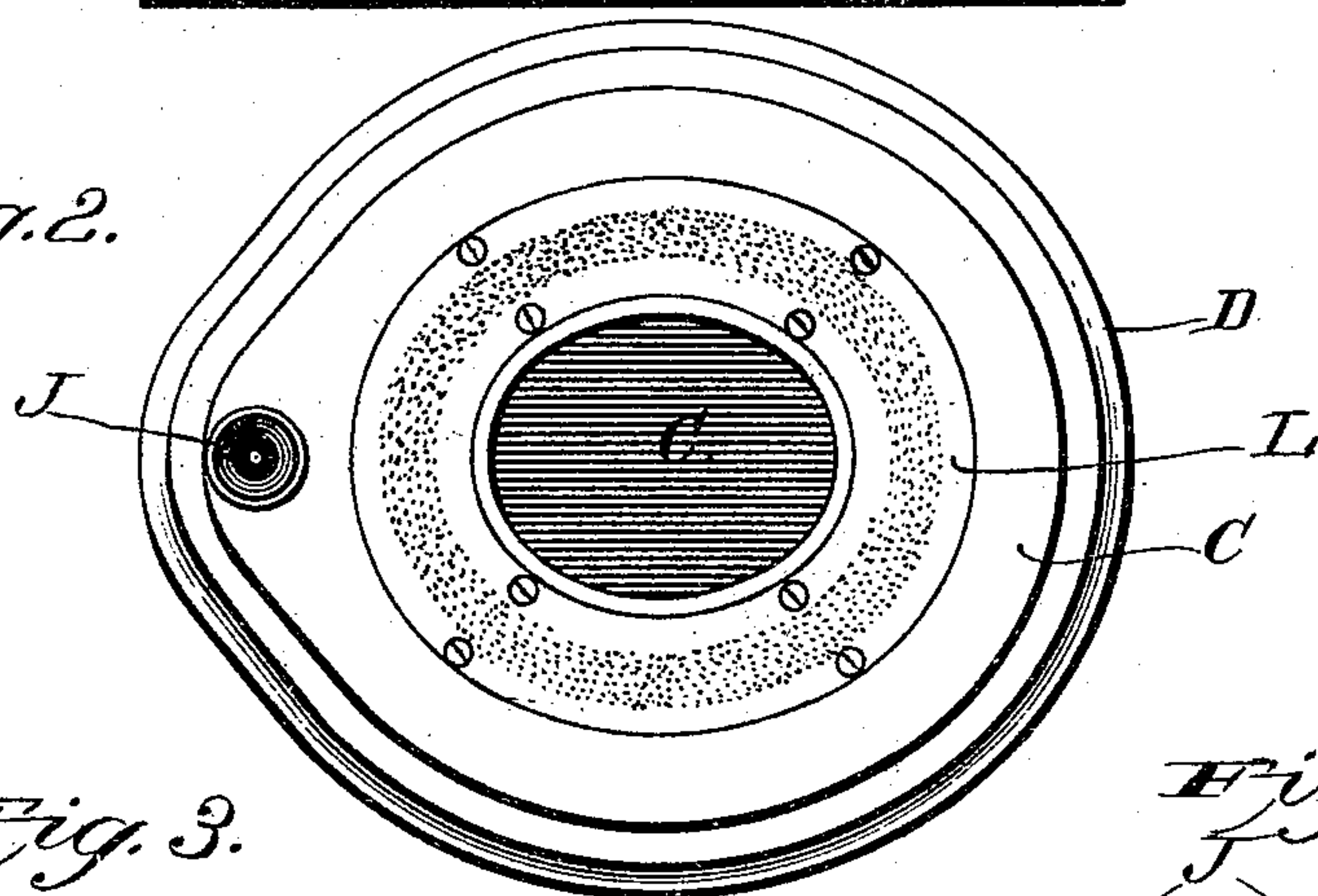


Fig. 3.

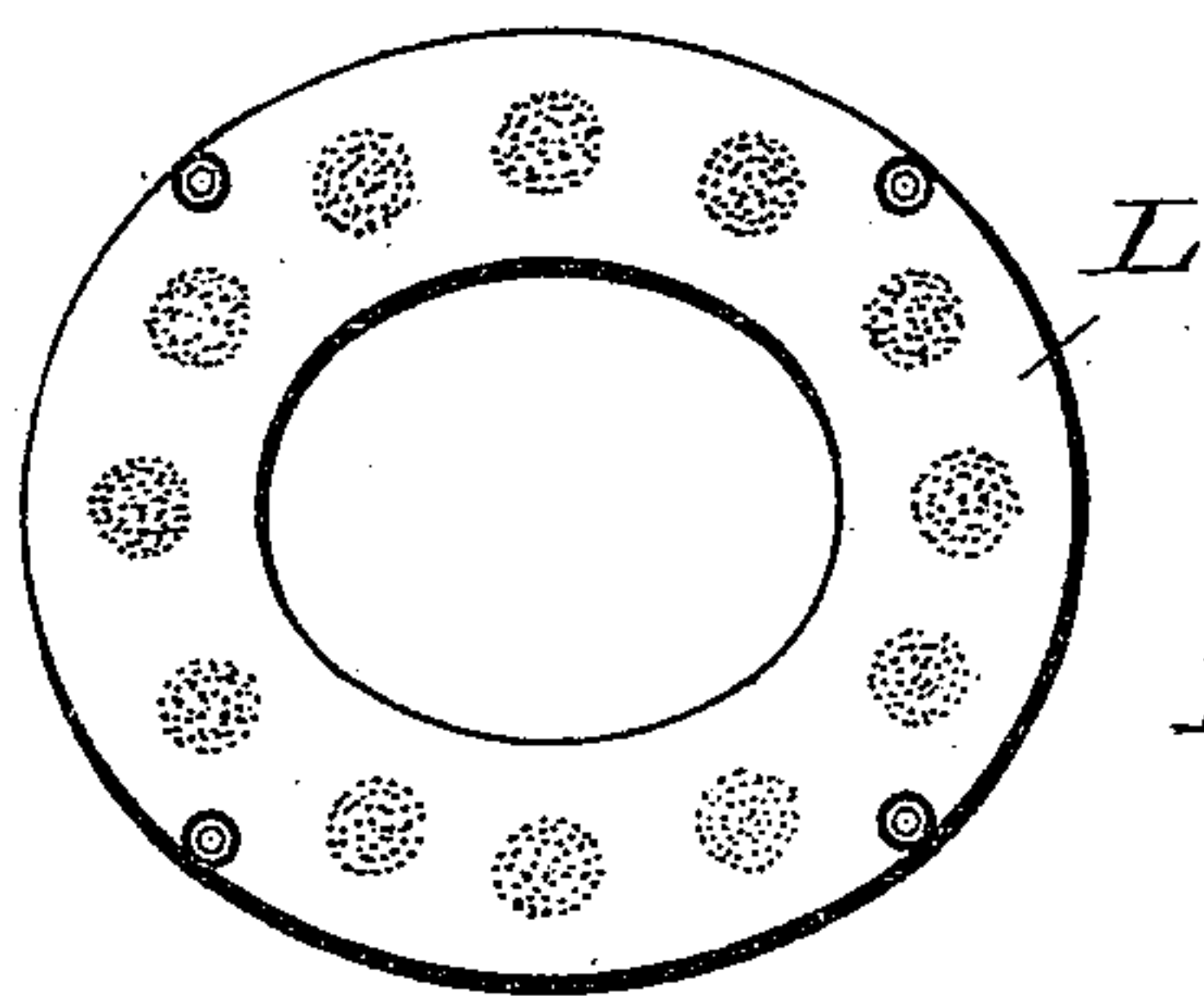
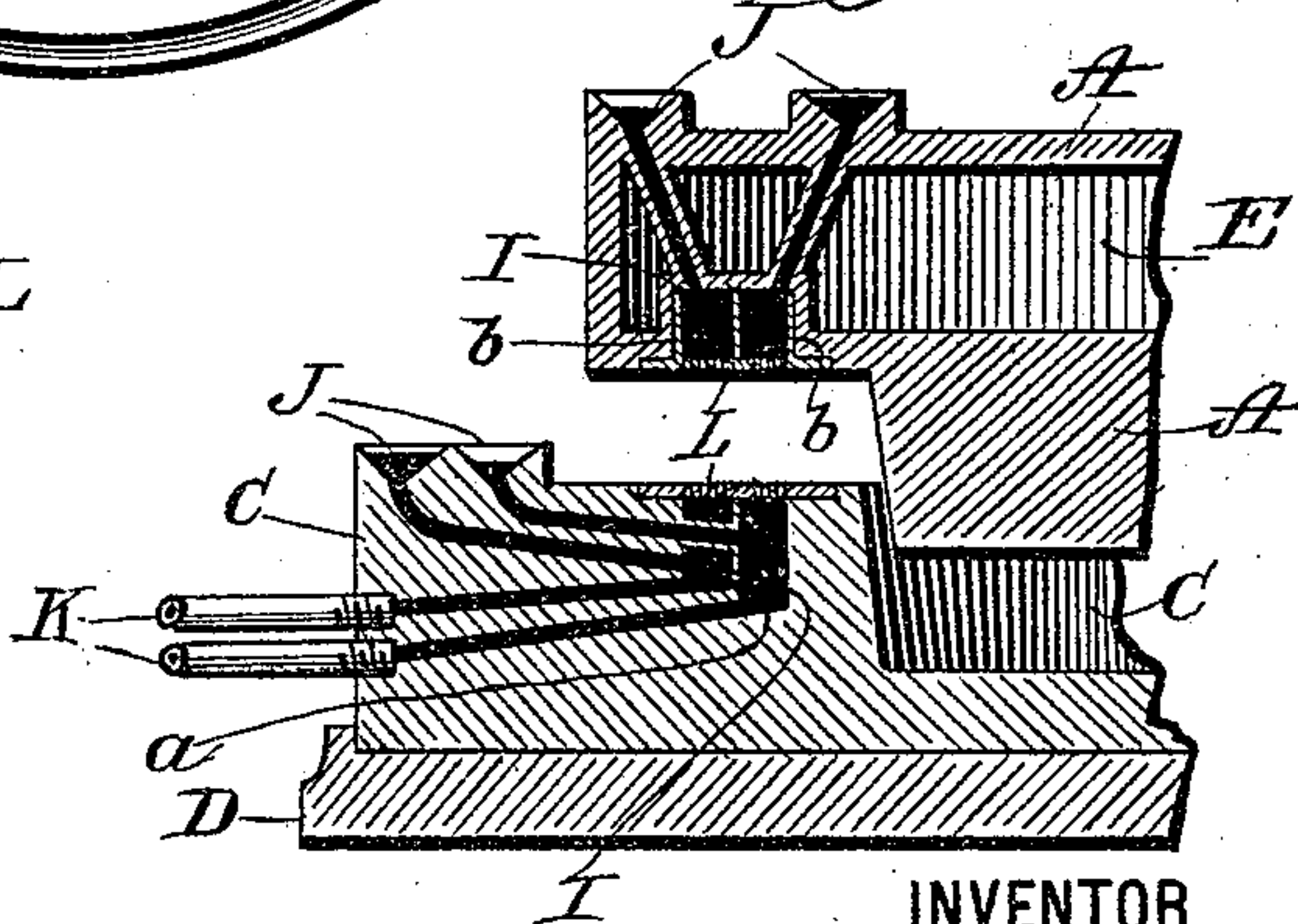


Fig. 4.



WITNESSES:

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APPARATUS FOR DYEING HATS.

SPECIFICATION forming part of Letters Patent No. 438,609, dated October 21, 1890.

Application filed December 23, 1889. Serial No. 334,613. (No model.)

To all whom it may concern:

Be it known that I, MICHAEL DELOHERY, a citizen of the United States, residing at Danbury, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Apparatus for Dyeing Ladies' Hats; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has reference to certain new and useful improvements in presses for dyeing ladies' felt, fur, or straw hats, and has for its object to greatly facilitate the process of such dyeing, and to provide means whereby various patterns may be dyed in a single machine.

In the accompanying drawings, Figure 1 is a sectional elevation of a pair of dies constructed in accordance with my improvement; Fig. 2, a plan of the lower die; Fig. 3, a detail plan of a pattern-ring, and Fig. 4 a broken sectional elevation showing my apparatus adapted for dyeing double patterns.

Similar letters denote like parts in the several figures of the drawings.

My improvement comprises a lower and upper die conformed, as a male and female, to the shape of the hat, the lower die being mounted on any suitable bed, while the upper die depends from any ordinary press-plunger.

A is the upper die secured to any suitable reciprocatory plunger B, and C is the lower die mounted on a bed D. These dies are hollow, so as to afford interior steam-chests E F, and G H are the steam-inlet pipes. Each die has in its face open annular channels I for containing the dye, which is introduced therein through ducts J.

K are pipes leading into the bottoms of said channels whereby the dye may be drawn off, if necessary.

L are the pattern-rings, within which are small perforations representing in their collective outline the design of the pattern which is to be dyed in the hat. These rings are countersunk in the faces of the dies, so as to close the dye-channels, as seen at Fig. 1.

The operation of my improvement is as follows: The hat is placed within the lower die and the upper die brought down, so that said hat will be firmly compressed between the two

dies. Liquid dye is now poured into the channels I through the ducts J, and steam introduced within the dies through the pipes G H. As the dye becomes heated, it will be forced through the perforations in the pattern-rings into the hat and will then be drawn continuously from the channels into the hat until the latter is thoroughly dyed. The surplus dye, if any, is now drawn off through the pipes K, the dies are separated, and the hat removed.

Different patterns may be dyed in the hat by substituting different pattern-rings. For instance, the ring shown in Fig. 2 may be removed, and the ring shown in detail at Fig. 3 may be substituted therefor.

Should it be desired to dye double patterns, a partition *a* is forced within the dye-channels, as shown in the lower die at Fig. 4, or a partitioned dye-box *b*, formed integral with the pattern-ring, may be inserted within the dye-channel, as shown in the upper die of Fig. 4, separate ducts being provided for the introduction of the dyes. However, I do not wish to be limited to any particular construction of dye-channels or dye-boxes, since my invention rests in the broad idea of dyeing a hat by compressing it between pattern-plates through which the dye exudes.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In an apparatus for dyeing ladies' hats, the combination, with a pair of compression-dies conformed to the shape of the hat and having in their faces open annular channels for the dye, of the pattern-rings secured to said dies and closing said channels, substantially as set forth and described.

2. A means for dyeing patterns on ladies' hats, consisting of a pair of hollow compression-dies having annular channels to contain the dye, and perforated pattern-plates covering said channels, each die being provided with steam-connections and means for introducing and drawing off the dies, substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

MICHAEL DELOHERY.

Witnesses:

GEORGE WAKEMAN,
J. P. FINCH.