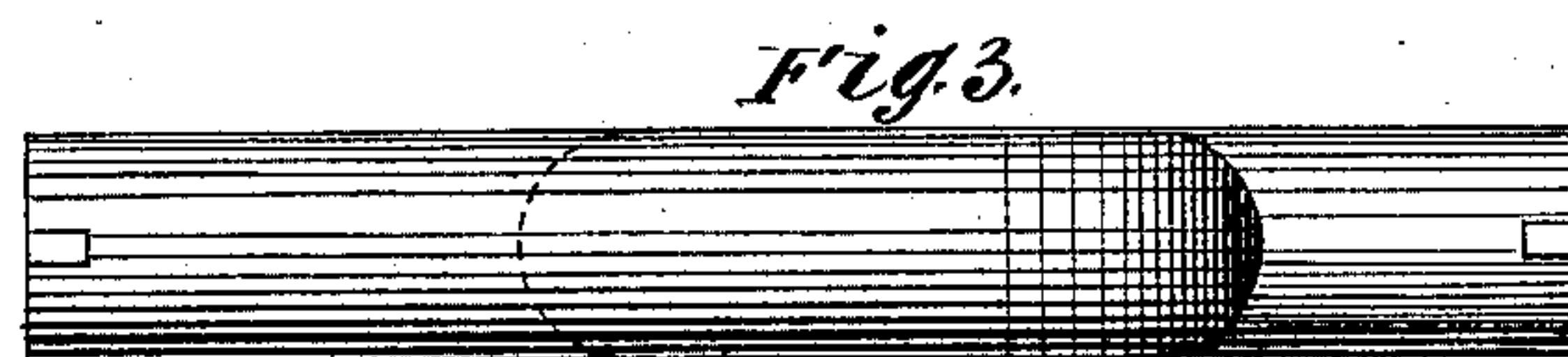
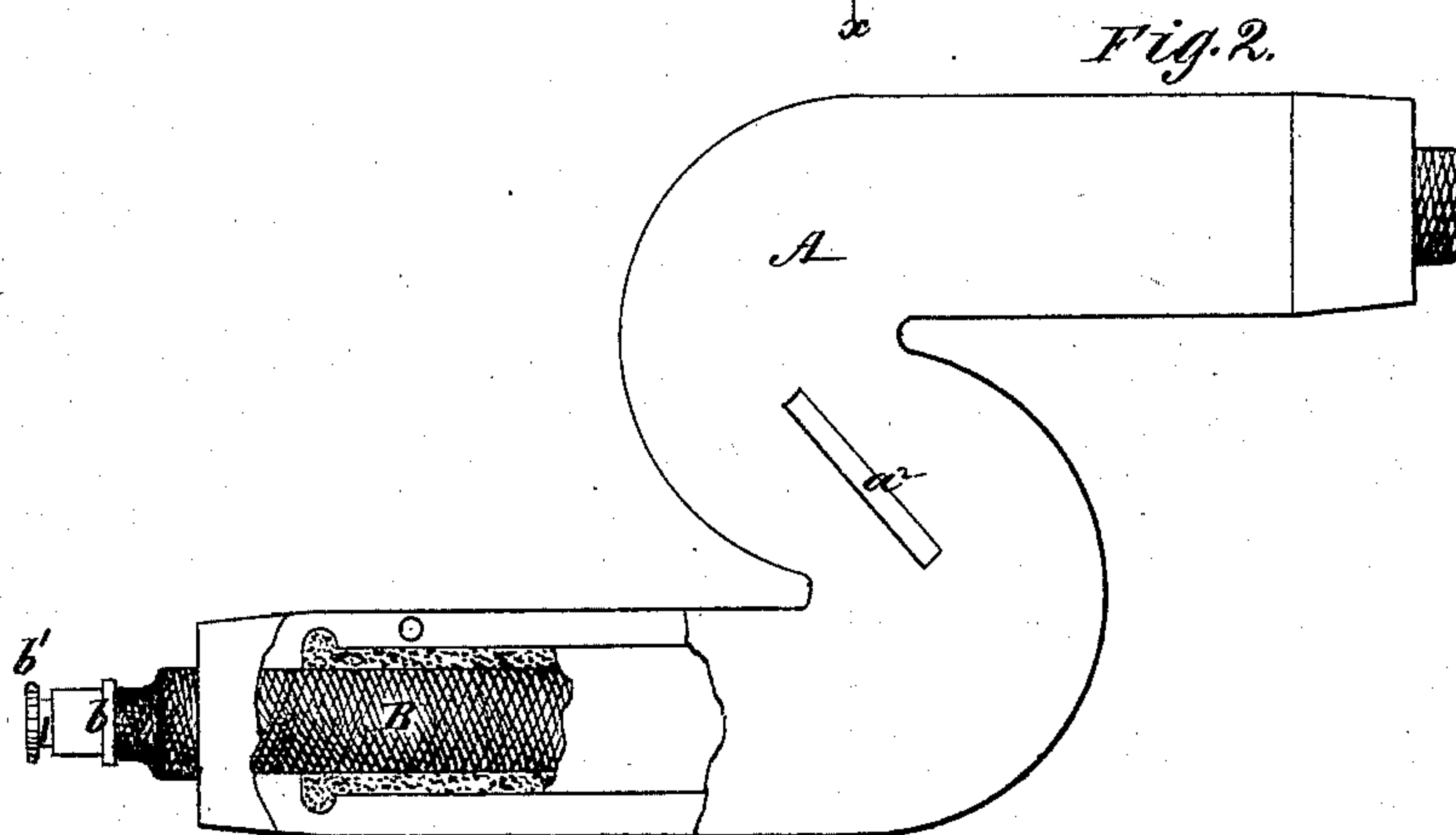
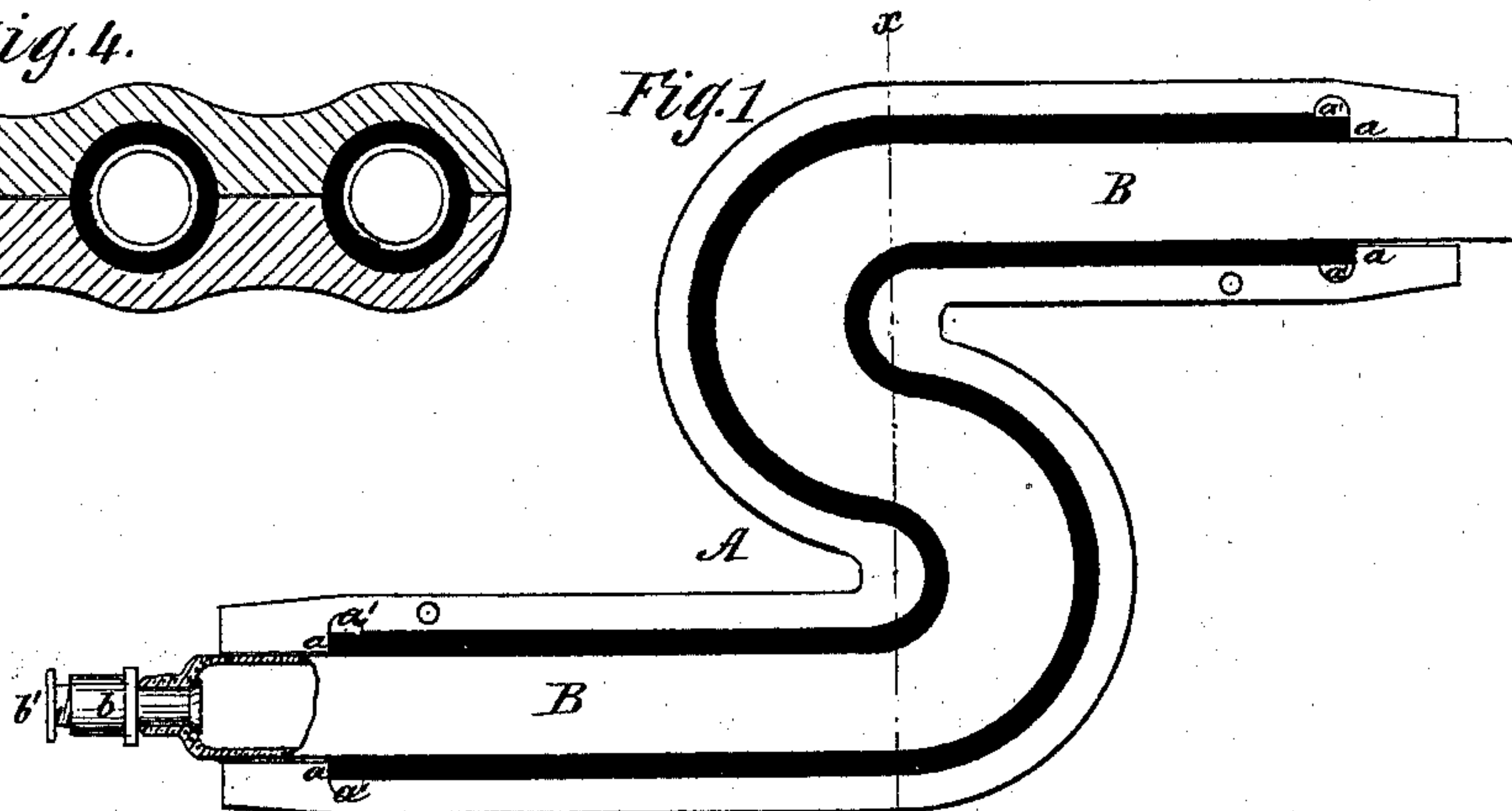
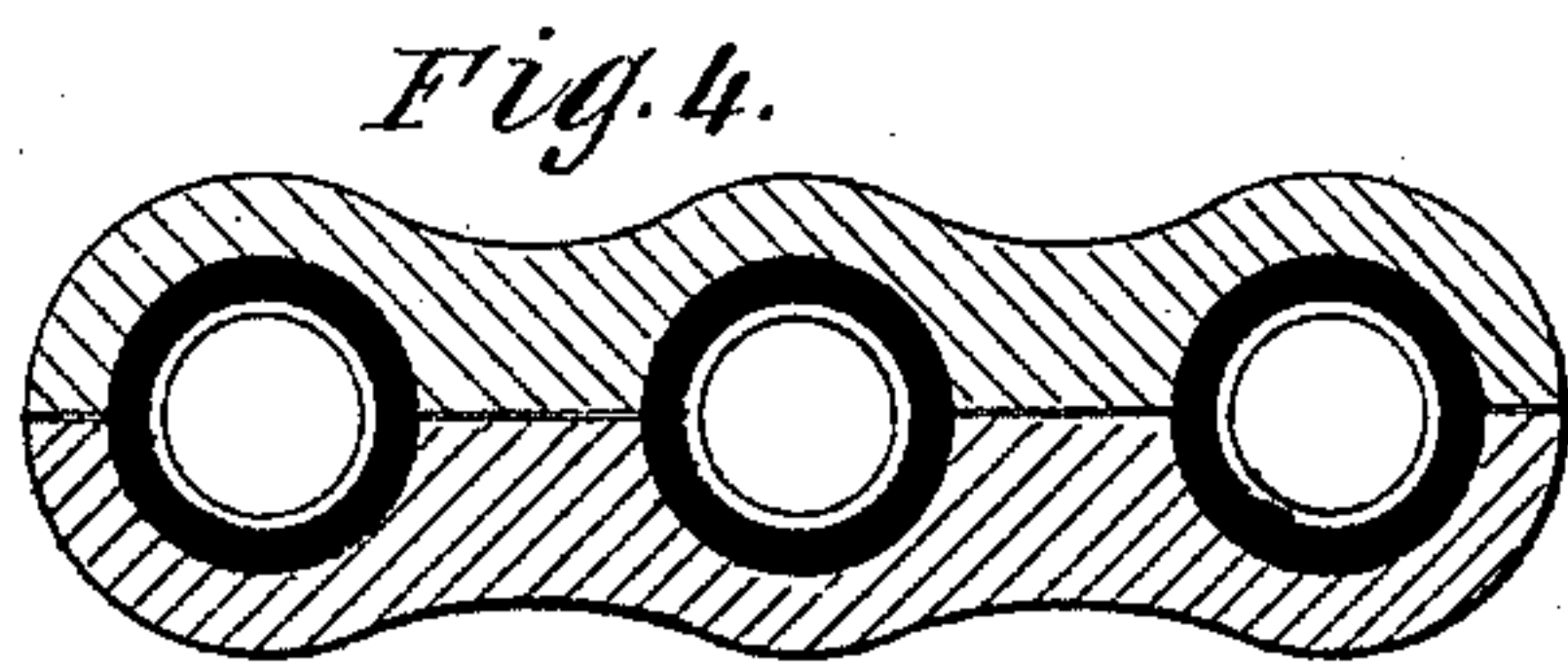


J. SEMPLE.

Manufacture of Plaster Patterns.

No. 143,384.

Patented September 30, 1873.



Witnesses:  
*G. H. Harris*  
*John H. Hannon*

Inventor:  
*James Semple*  
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Attorneys.

# UNITED STATES PATENT OFFICE.

JAMES SEMPLE, OF CHICAGO, ILLINOIS.

## IMPROVEMENT IN THE MANUFACTURE OF PLASTER PATTERNS.

Specification forming part of Letters Patent No. **143,384**, dated September 30, 1873; application filed June 25, 1873.

*To all whom it may concern:*

Be it known that I, JAMES SEMPLE, of Chicago, in the county of Cook and State of Illinois, have invented a new and Improved Method of Forming Hollow Cores for Castings; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing forming a part of this specification.

The invention relates to wax or other molds in which are formed smooth hollow cores for casting stench-traps.

The invention will first be fully described and then clearly pointed out in the claims.

Figure 1 is a top view of the lower half of mold, showing the core and rubber tube. Fig. 2 is a top view of mold partly broken away; Fig. 3, a side elevation of core; and Fig. 4, a section through line *x x* of Fig. 1.

In the drawing, A represents the core-mold, having at each end the semicircular shoulder *a* and the opposite recesses *a*<sup>1</sup> *a*<sup>1</sup>, the half of each recess and shoulder being in each of the longitudinally-divided sections. It also has an inlet-aperture, *a*<sup>2</sup>. B is a rubber tube, having a metallic valve-seat tube, *b*, closed by a threaded hollow metallic valve-plug, *b'*, which is perforated laterally, so that when the valve is lifted off its seat in the tubular piece *b* the tube B will collapse, or may be inflated. This tube is made of a shape corresponding to that of the desired trap, is inflated, oiled on the outside, and placed in the mold A. It is made to oc-

cupy a true central position in the mold by means of bits of dry plaster placed between it and the mold. The latter being closed, the liquid plaster is poured through the aperture *a*<sup>2</sup>, and made to occupy all the vacant space between the tube and mold. The liquid plaster is then permitted to harden in the mold, when the bits of dry plaster that were used for centering purposes will become united and consolidated with the other, forming a tube with lugs that correspond to the recesses *a*<sup>1</sup>.

By unscrewing outwardly the valve-plug *b'* its valve is lifted from its seat in tube *b*, and the rubber tube B allowed to collapse. The latter is then easily withdrawn, when the mold is opened and the core removed.

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

1. The combination described, with a mold, A *a*<sup>1</sup> *a*<sup>2</sup>, for making plaster patterns, of a collapsible core, B, centered by bits of plaster placed between it and the mold, which become consolidated with the liquid plaster, as set forth.

2. A collapsible tubular core, B, provided with valve-seat tube *b*, and a threaded hollow valve-plug, *b'*, laterally perforated, as and for the purpose specified.

JAMES SEMPLE.

Witnesses:

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