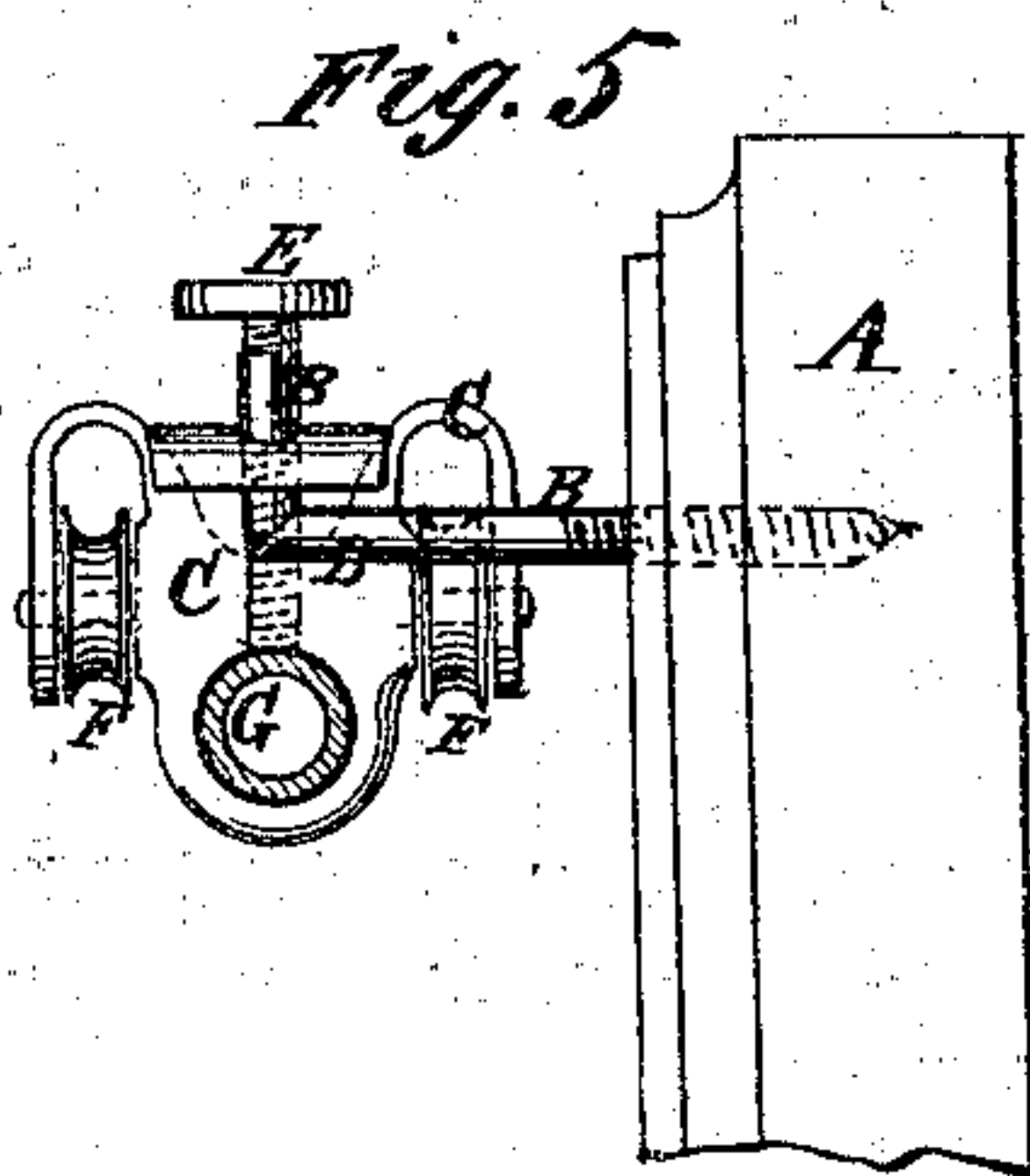
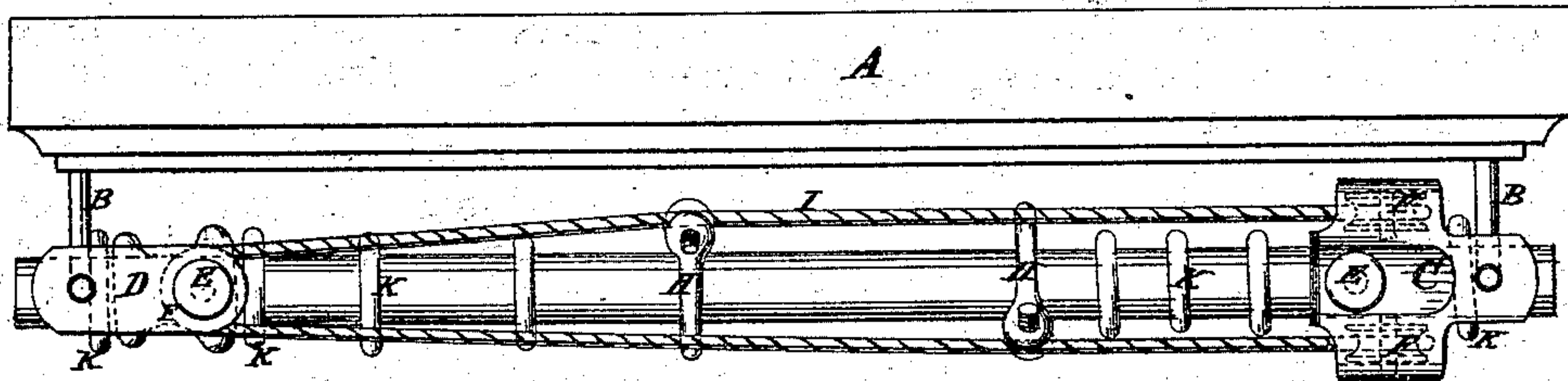
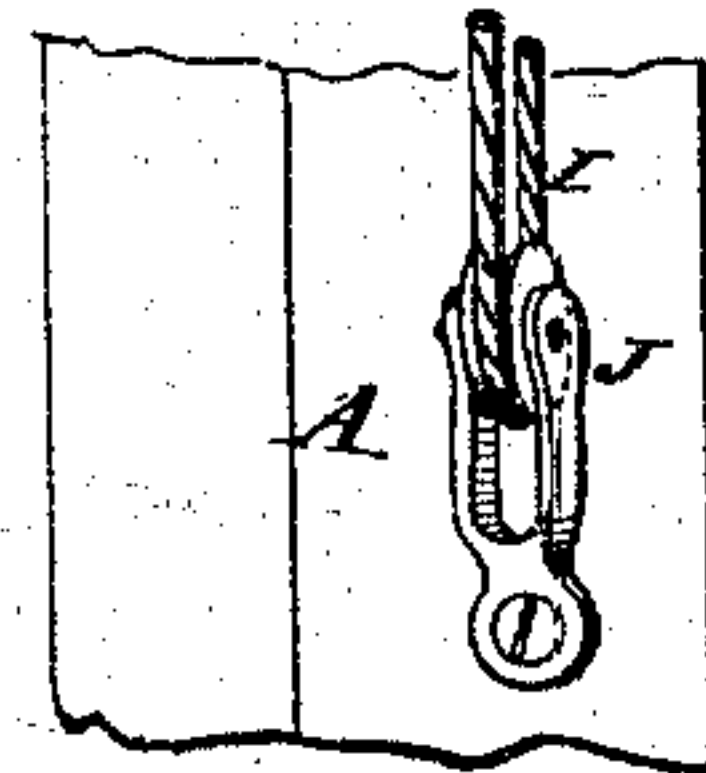
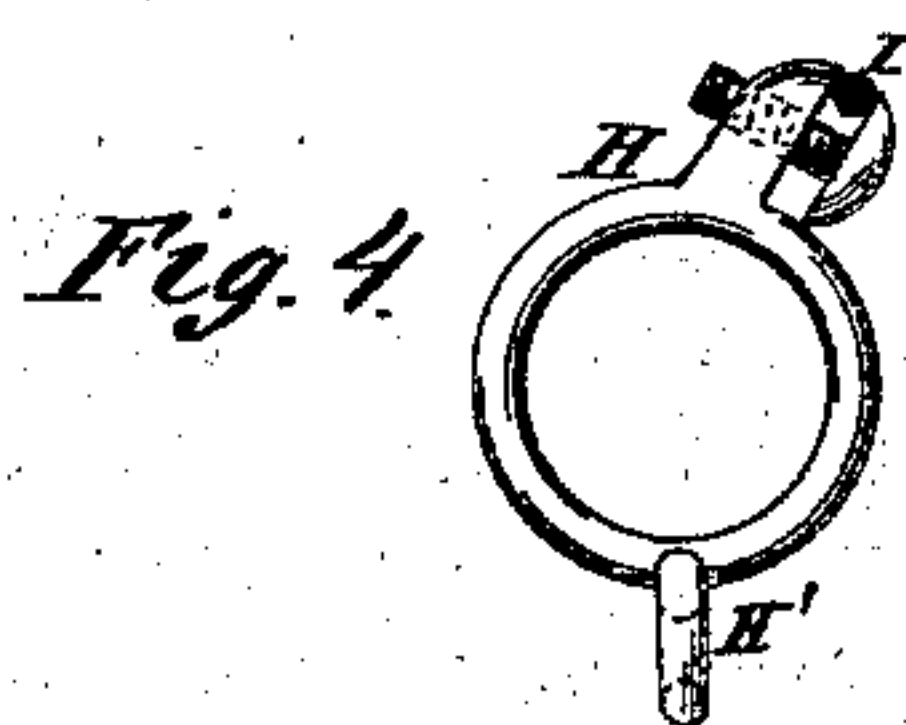
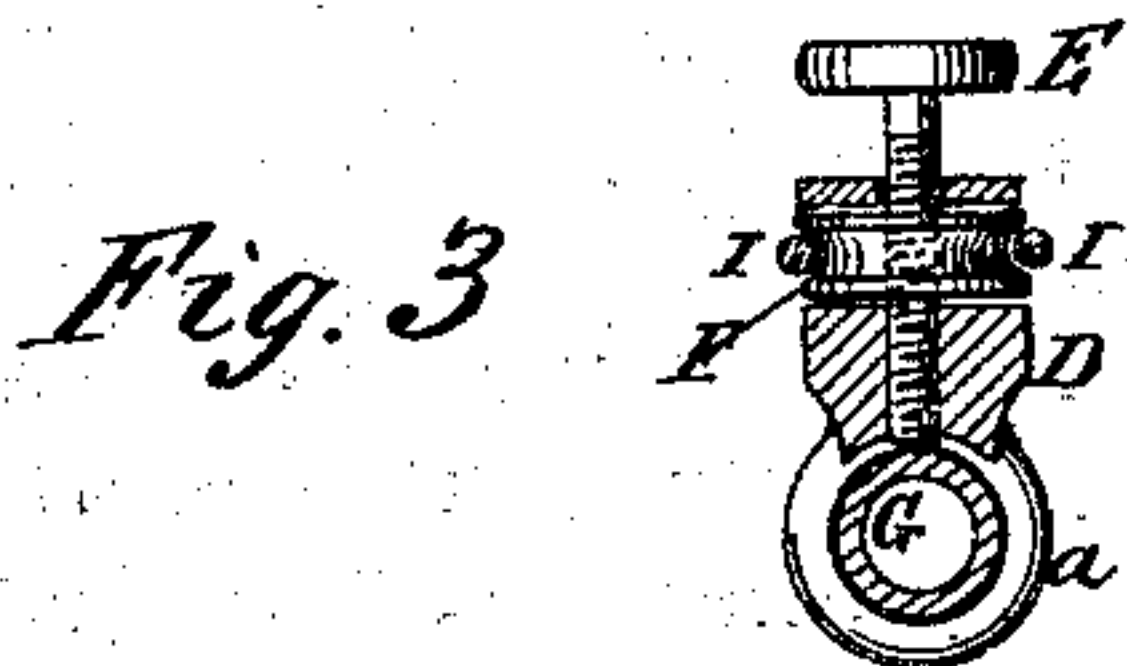
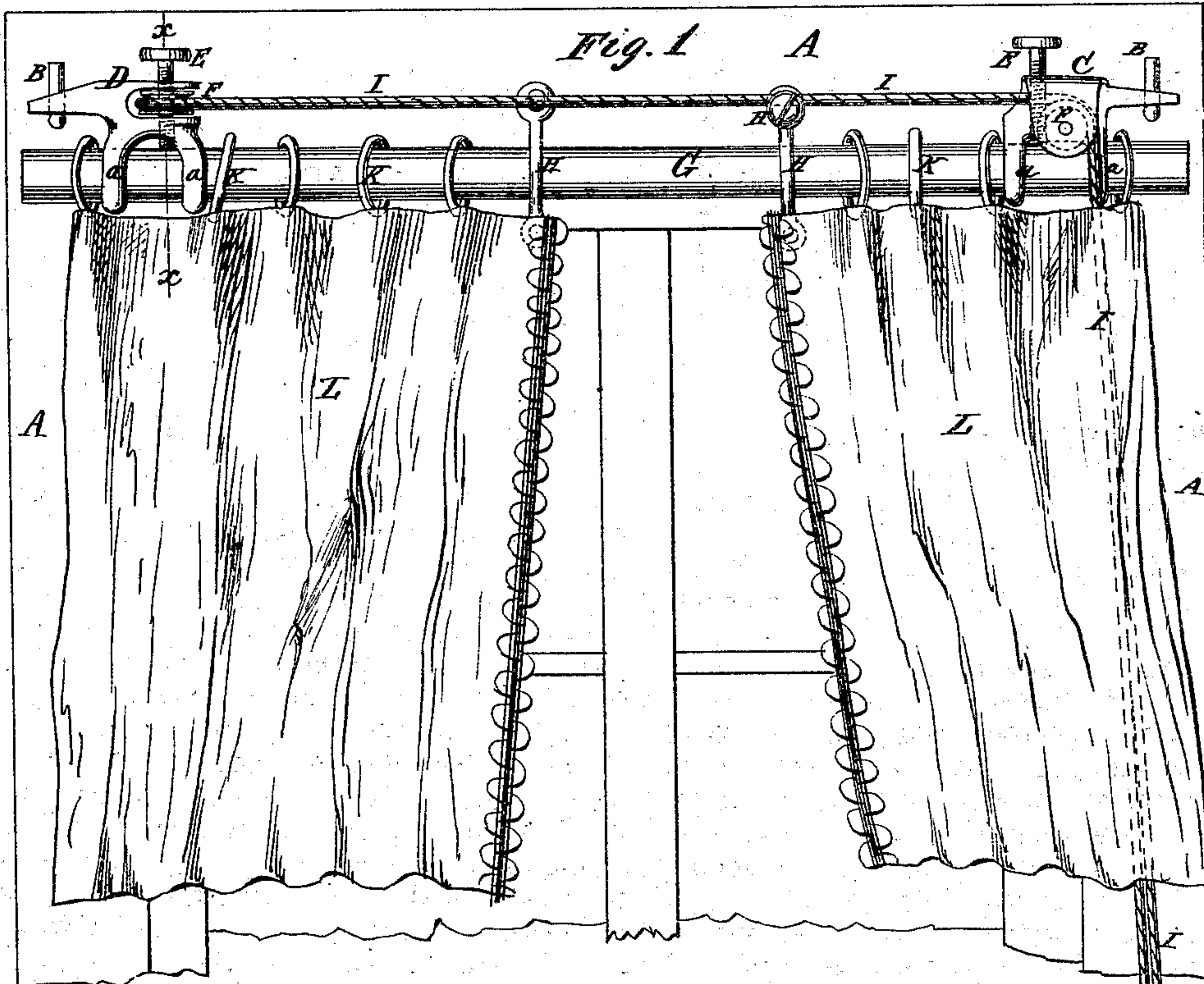


C. E. HOWARD.
Curtain-Fixtures.

No. 153,959

Patented Aug. 11, 1874.



WITNESSES:

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UNITED STATES PATENT OFFICE.

CHARLES E. HOWARD, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN CURTAIN-FIXTURES.

Specification forming part of Letters Patent No. **153,959**, dated August 11, 1874; application filed May 23, 1874.

To all whom it may concern:

Be it known that I, CHARLES E. HOWARD, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement in Curtain-Fixtures, of which the following is a specification:

This invention relates to new and useful improvements in mode of operating window-curtains, more especially designed for large and heavy curtains, but applicable to all kinds of curtains; and it consists of the arrangement of the operating-cord in regard to curtain-rod; in the clamp-rings for attaching the cord and curtain together; and in the construction and arrangement of the cord-pulley brackets, hereinafter more fully set forth and described.

In the accompanying drawing, Figure 1 is a front elevation of a window-curtain and fixture arranged to operate according to my invention. Fig. 2 is a top view. Fig. 3 is a detail section of the left-hand bracket, showing the curtain-rod and set-screw, the section being on the vertical line *xx* of Fig. 1. Fig. 4 is a view of one of the clamp-rings for attaching the curtain to the cord. Fig. 5 is a top view of the right-hand pulley-bracket, showing the pulleys, the curtain-rod, set-screws, and one of the hooks, by means of which the curtain-rod and brackets are supported from the casing of the window.

Similar letters of reference indicate corresponding parts.

A represents the window-casing. B B are the supporting-hooks, which screw into the casing, as seen in Fig. 5. These hooks pass through the outer ends of the brackets; but I do not confine myself to that arrangement. C is the right-hand or double-pulley bracket, F F being the pulleys. (See Fig. 5.) G is the curtain-rod. H H are the rings, which carry the clamps for connecting each part of the curtain to the cord. I is the cord, which is clamped between the screw-heads and projecting lips of the curtain-rings H. These rings H are attached to the parts of the curtains by means of small rings H'. (See Fig. 4.) D is the left-hand bracket, which carries a single pulley, F, around which the cord I passes.

The arbor of this pulley is the set-screw E. The set-screws E E (one at each bracket) bear upon the rod G, to hold the rod to the bracket and prevent longitudinal motion. The rod passes through the rings *a* of the two brackets, as seen in Fig. 1. The cord is spliced, as seen in the drawing, and is passed around the pulley F in the bracket D, and is, of course, double over the window, and as it passes over the two pulleys in the bracket C, and also as it extends down vertically on the window-casing to and around the holding-pulley J. Instead of being an endless cord, it may be cut, and the ends may hang down loose on the casing with a knob or handle to each end, by means of which the cord may be drawn to operate the curtains. At the top of the window one part of the curtain is attached to one of the cords, and the other part of the curtain to the other cord, as seen in Fig. 2, so that when one of the cords which hang down on the casing is pulled, the curtain is opened, and when the other cord is pulled the curtain is closed. L represents the curtain. K are the ordinary curtain-rings, which slide on the curtain-rod, as usual.

By my mode the parts of the curtain are adjusted in any desired manner by simply loosening the clamp-screws. By placing the brackets C and D and pulleys F above the curtain-rod, as seen, they are completely covered by the curtain-cornice, and the curtain is made to present a handsome and artistic appearance.

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

1. The ring H, having a peripheral lug and a headed screw passing through it, to form a clamp to attach said ring to the cord I and suspend the curtain therefrom, as shown and described.

2. The combination of brackets C and D, constructed with legs *a*, the clamp-screws E, curtain and rod G, as shown and described.

CHAS. E. HOWARD.

Witnesses:

F. J. SARMIENTO,
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