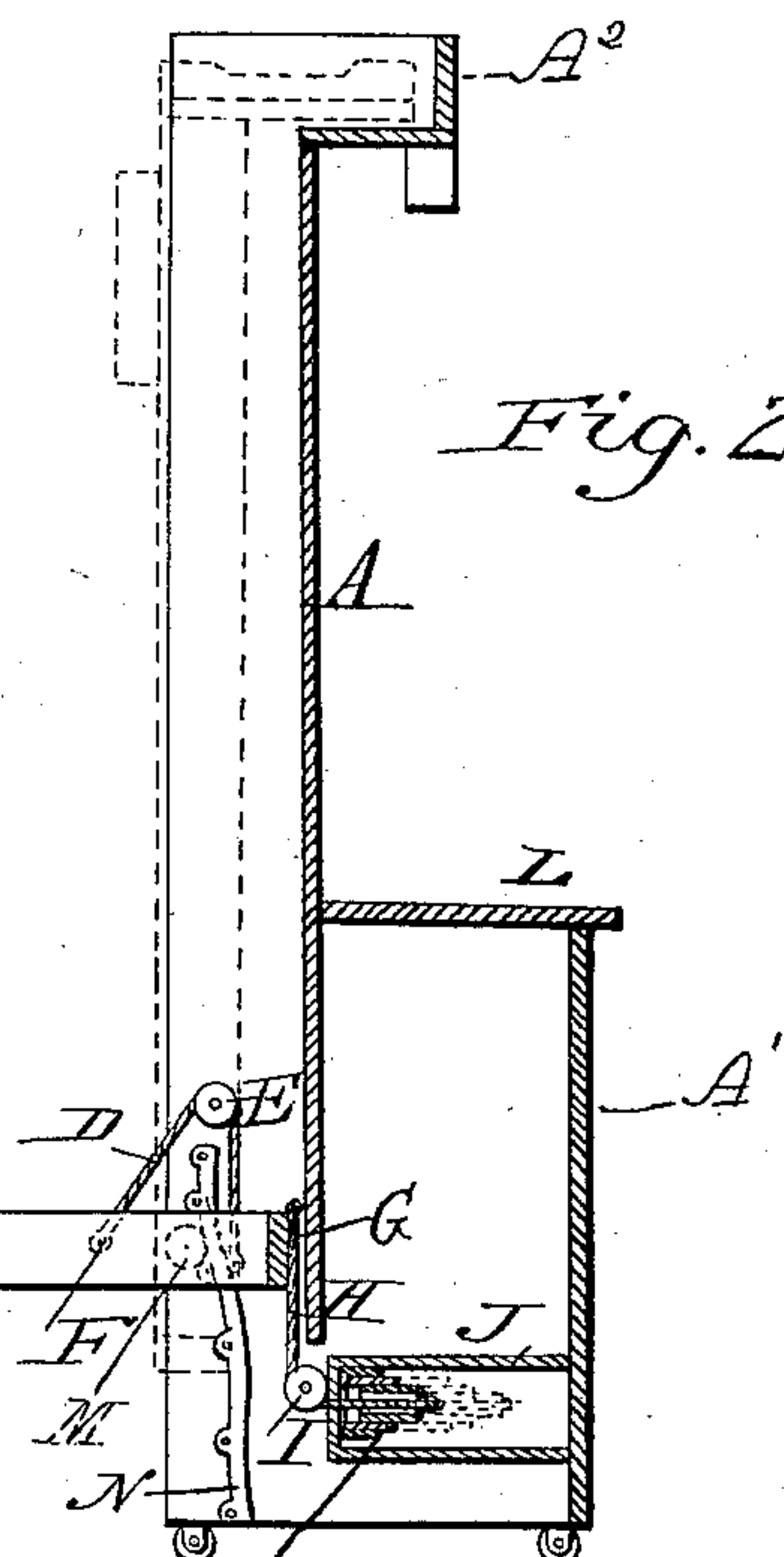
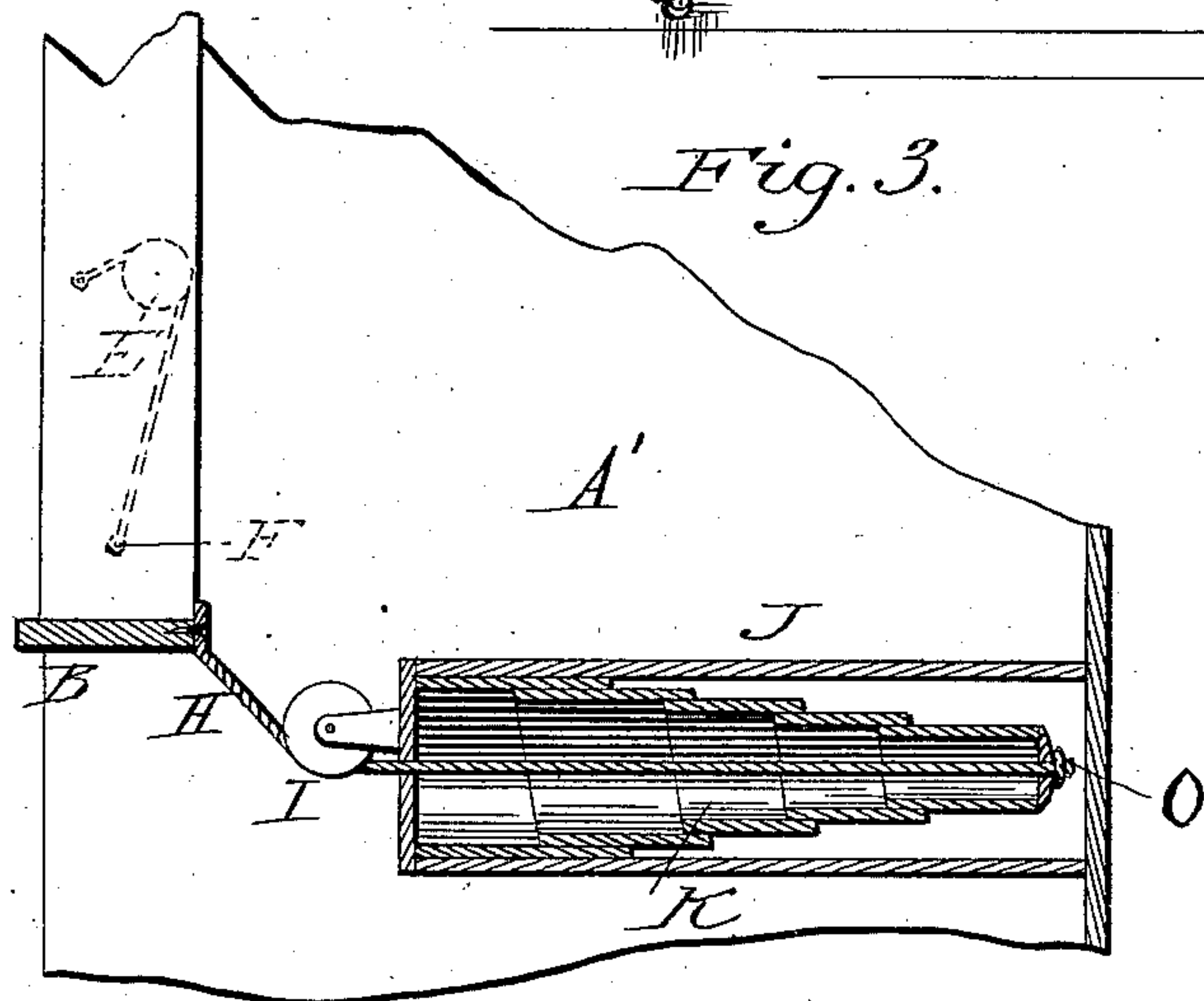
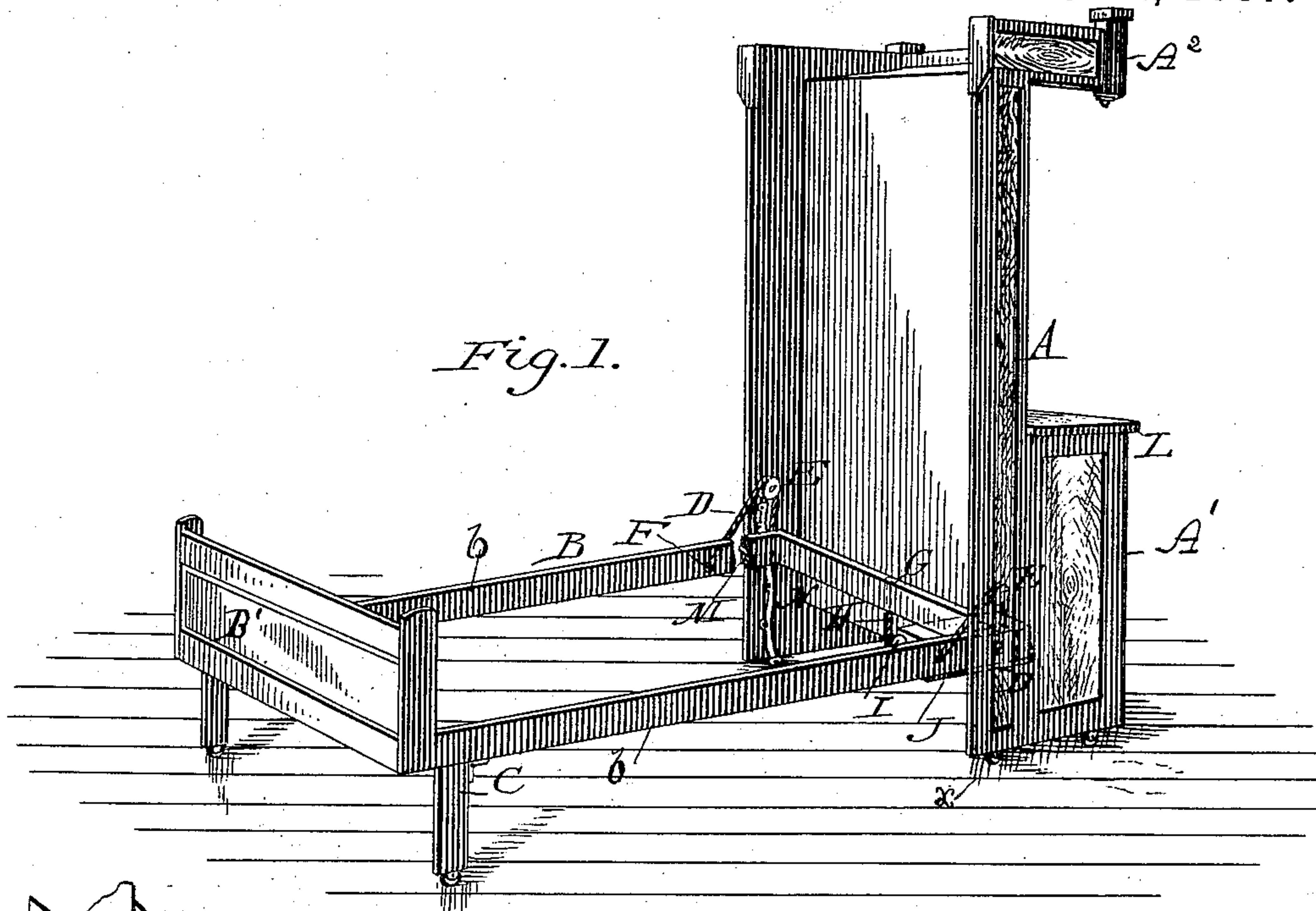


(No Model.)

L. W. WELCH.  
WARDROBE BEDSTEAD.

No. 364,875.

Patented June 14, 1887.



Witnesses:  
George E. Hunt  
George A. Knapp.

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# UNITED STATES PATENT OFFICE.

LYMAN W. WELCH, OF MONTPELIER, VERMONT.

## WARDROBE-BEDSTEAD.

SPECIFICATION forming part of Letters Patent No. 364,875, dated June 14, 1887.

Application filed July 7, 1886. Serial No. 207,332. (No model.)

*To all whom it may concern:*

Be it known that I, LYMAN W. WELCH, a citizen of the United States, and a resident of Montpelier, in the county of Washington and State of Vermont, have invented certain Improvements in Wardrobe-Bedsteads, of which the following is a specification.

My invention relates to the class of bedsteads generally called "folding beds" or "turn-up beds," and particularly to that variety wherein the weight of the bed proper, which turns down, is measurably counterbalanced by a spring instead of by a weight.

My invention will be fully described hereinafter, and its novel features carefully defined in the claims.

In the accompanying drawings, illustrating my invention, Figure 1 is a perspective view of a bedstead embodying my invention, said view showing the movable hinged portion or bed proper turned down. Fig. 2 is a sectional side elevation of the bedstead, more clearly illustrating the various details of construction. Fig. 3 is a fragmentary sectional view on a larger scale, showing the conical volute spring, its box or casing, and the connecting-spring.

A represents, in general, the standing portion or casing of the bed, which is the front when the bedstead is closed up and stands with its back to the wall. This casing may be a dressing-case, bureau, or other similar article of furniture. The projecting portion A' of the casing or dressing-case, which usually contains the drawers, is covered by a marble slab, L, in the same manner as an ordinary dressing-case. At its top the casing A has a hollow cornice-like projection, A<sup>2</sup>, to receive and house the foot-board B' when the bedstead is closed or folded up.

B represents, in general, the bed proper or turn-down portion of the bedstead.

In the drawings I have omitted the bed bottom or spring and the bedding, in order to better show the construction.

B' is the foot-board; *b b*, the side rails, and C C the folding legs, which support the free end of the bed proper, B.

The bed proper is connected with the casing in substantially the same way and by the same instrumentalities as those illustrated in my Patent No. 311,623, dated February 3, 1885—

that is to say, D D are cords or chains of the proper length, secured at their ends to the side rails, *b*, and E E are sheaves or pulleys mounted, respectively, on the inner faces of the sides of casing A. The chains or cords D take, respectively, over said sheaves E, and play over same when the bed proper, B, is raised and lowered.

F represents the button attachment of chain D to rail *b*.

N N represent curved tracks secured, respectively, to the inner faces of the sides of the casing A, and M M represent friction-rollers mounted on the outer faces of the rails *b*, which roll on tracks N N, respectively, when the bed is raised and lowered. This feature, comprising the chains D, sheaves E, rollers M, and tracks N, one set at each side of the bed, being the same as that in my former patent, I do not specifically claim it herein.

The spring K, whereby the bed proper, B, is measurably counterbalanced, is shown compressed in Fig. 2 and distended in Fig. 3. This is a conical volute spring arranged in a box or casing, J, fixed under the projecting part A' of the casing, and usually at about the middle of the width of the bedstead.

H is a cord or chain, which is attached to the foot-rail of the bed proper, B, at G, passes thence over a guide-sheave, I, fixed in bearings on the casing J, and thence through the spring K, and is fixed to a block, O, that takes against the end of spring K. The larger end or base of the spring abuts against the end of box J. When the bed proper, B, is turned down, the pull on the cord or chain H tends to compress spring K, and thus the spring tends to resist the descent of the bed and to counterbalance its weight. By arranging the spring under the projection A' and covering said projecting part with a heavy slab, L, the tilting over of the standard or casing A is prevented.

In some folding beds a heavy weight is employed to counterbalance the part that turns down. In these beds there is no tendency to overturn the standard, as the pressure is directly downward from the pivotal axis. The excessive weight, however, is objectionable, as it prevents the bedstead from being moved about freely. When a spring is employed in



lieu of a weight, the standard or casing must either be secured to the wall or it must have a front projection heavy enough to counteract the tendency to turn over when the bed proper is pulled down. In my bed the fulcrum-point on which the casing A tends to turn when the bed proper, B, is pulled down is at the back casters, *x*, and I arrange my spring as far in front of these as possible by placing it beneath the projecting portion A, thus giving to the standard or casing far more stability than is found in this class of bedsteads where the spring is placed directly above the fulcrum-point.

15 Having thus described my invention, I claim—

1. The combination, with the casing A, provided with a projecting portion, A', and a slab, L, thereon, as described, of the bed proper, B, hinged in said casing, whereby it may be turned down at the back of same, the spring K, arranged under the projecting portion A' of the casing, in front of the rear edge of the latter, the cord or chain H, connected at one end to the end of the bed proper, B, and at the other end to the spring, and the guide-sheave I, over which said chain passes.

2. The combination, with the casing A, provided with a projecting portion, A', and a slab, L, thereon, of the bed proper, B, at the

back of the casing, the supporting cords or chains D D, attached at their ends to the bed proper and their bights taking over the sheaves E E on the casing, the said sheaves, the rollers M M on the rails *b b*, the tracks N N on the casing, the volute spring K, arranged under the projecting portion A', in front of the rear edge of the latter, the sheave I, and chain H, all arranged to operate substantially as set forth.

3. The combination, in a wardrobe-bedstead, with the casing or standard having a projecting portion, A', and slab L, of the spring-box J, arranged horizontally under the bottom of said projecting portion, the conical volute spring K, arranged in said box, the block O at the small end of the spring, the guide-sheave I, the chain H, attached at its one end to said block O, and extending through said spring and over said sheave, and the bed proper, B, hinged in said casing, the end of chain H being attached to said bed proper, all substantially as set forth.

Signed at Montpelier, Vermont, April 26, 1886.

LYMAN W. WELCH.

Witnesses:

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