

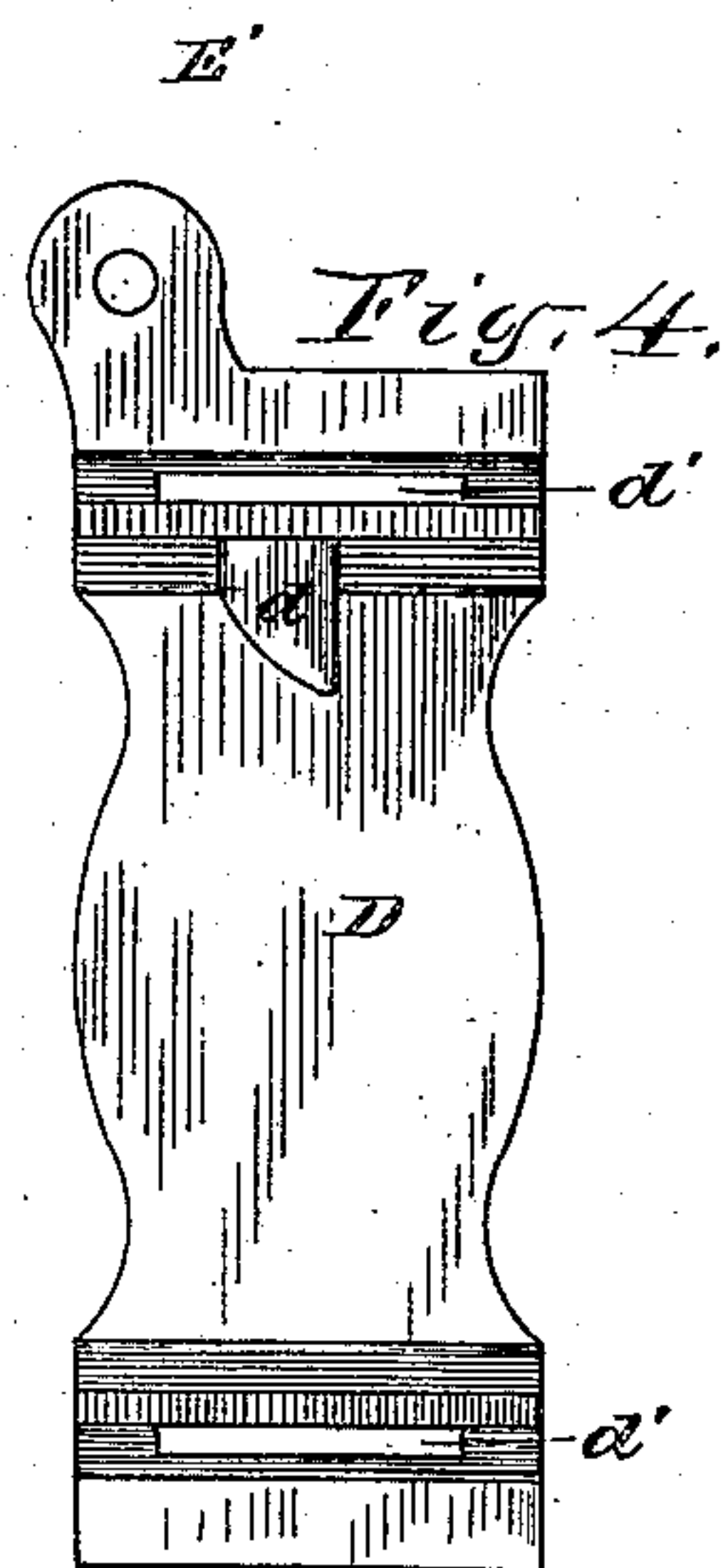
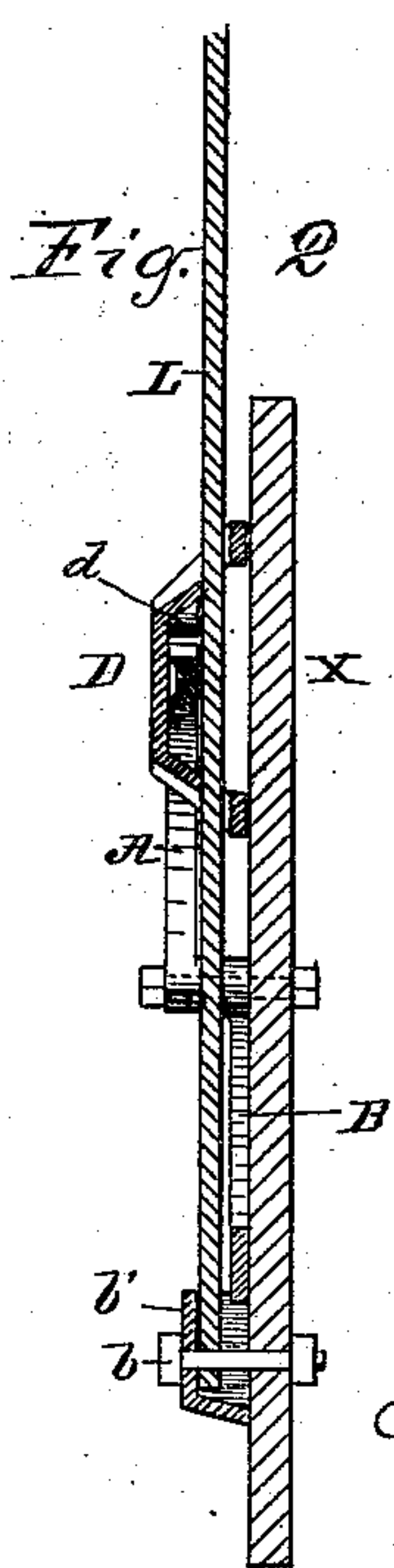
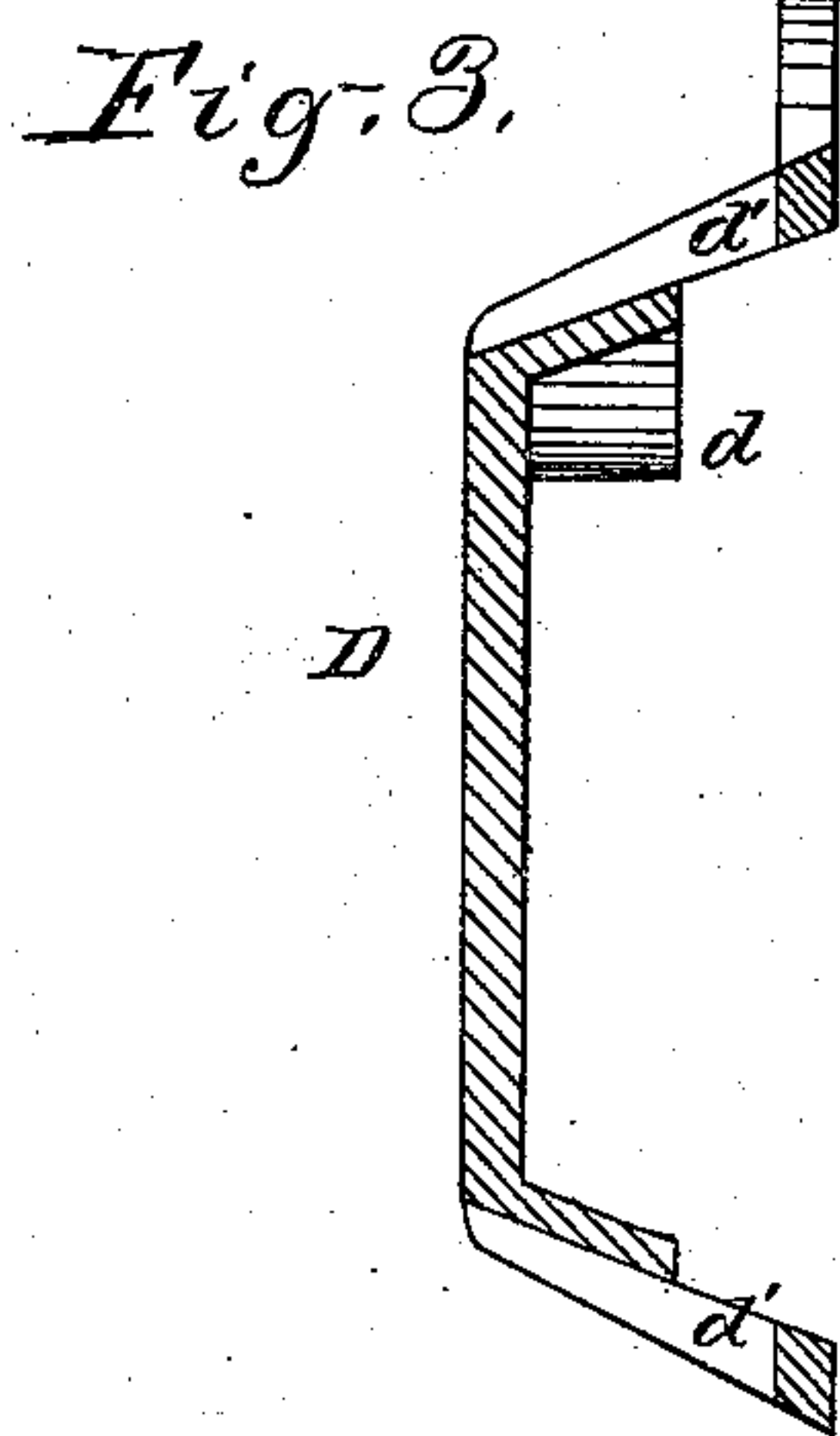
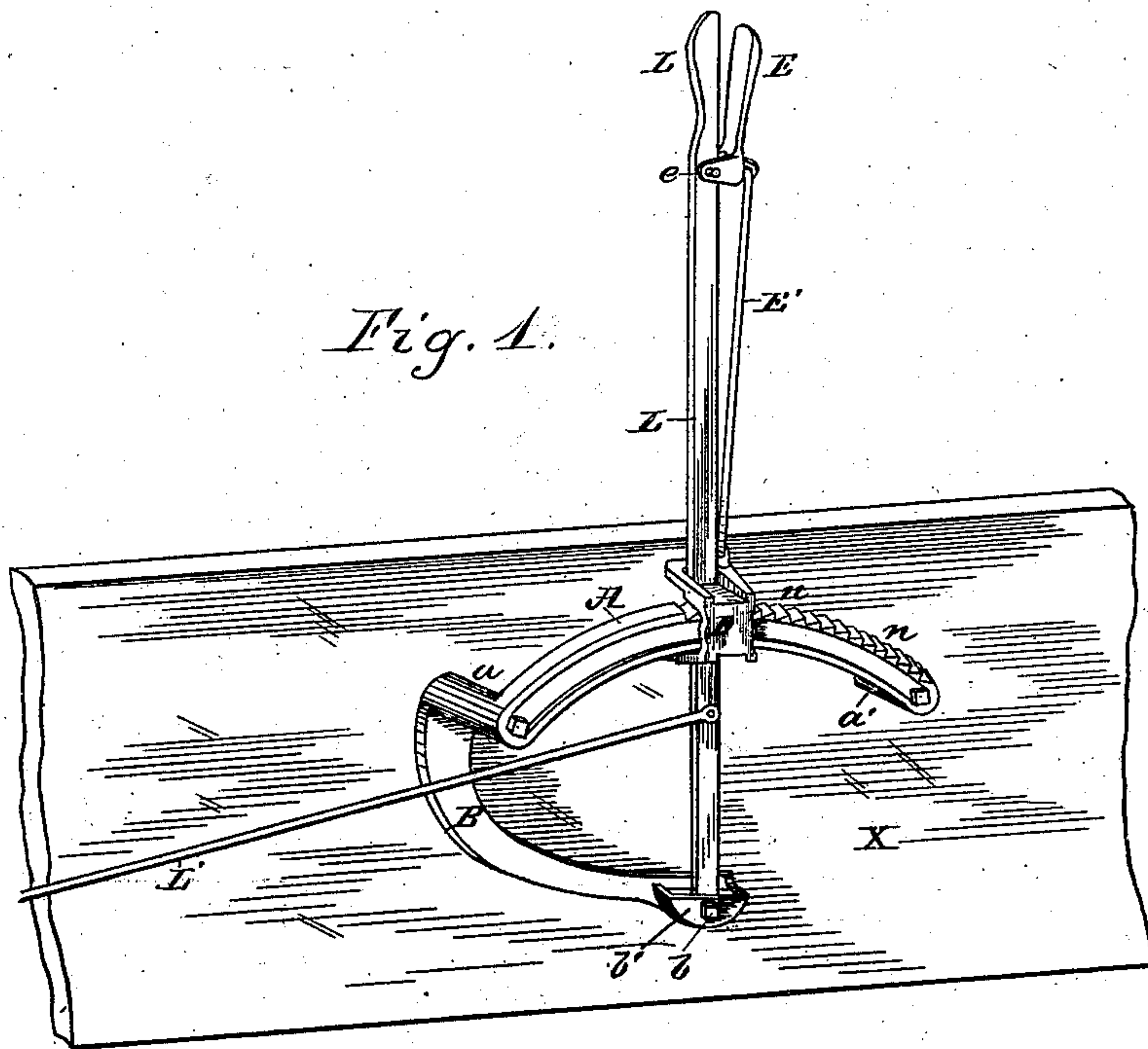
(No Model.)

S. S. HURLBUT.

WAGON BRAKE LOCK.

No. 260,573.

Patented July 4, 1882.



WITNESSES—
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UNITED STATES PATENT OFFICE.

SIDNEY S. HURLBUT, OF RACINE, WISCONSIN.

WAGON-BRAKE LOCK.

SPECIFICATION forming part of Letters Patent No. 260,573, dated July 4, 1882.

Application filed December 19, 1881. (No model.)

To all whom it may concern:

Be it known that I, SIDNEY S. HURLBUT, of the city of Racine, in the county of Racine and State of Wisconsin, have invented certain new and useful Improvements in Wagon-Brake Locks; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to automatic gravity-locks for wagon-brakes, and has for its object to provide a construction in such locks that will be more simple, cheap, and durable than locks heretofore made, and adapted to operate without a spring.

To this end it consists in the combination, with a curved rack having notches on its upper face, with the brake-lever, and with a suitable pawl-lifting device, of a pawl-block constructed to slide longitudinally upon the brake-lever and to embrace said lever and rack, so as to retain these parts while being itself retained in proper relative position, and provided with a depending projection which engages the rack-notches.

It further consists in certain features of construction hereinafter explained and claimed.

In the accompanying drawings, Figure 1 is a perspective of the lock as the same appears when secured to the vertical side of a wagon-box. Fig. 2 is a vertical section through the lever when upright. Fig. 3 is a central vertical section of the sliding pawl-block detached and enlarged. Fig. 4 is a rear view of the pawl-block detached and enlarged.

A is a rack curved in the arc of circle from the point *b*, which rack sets out a short distance from the side-board X of a wagon-box to give free passage to the lever L behind it, being supported by short standards at *a* and *a'* in the usual manner of constructing such racks, and provided with notches *n n* on its upper edge.

B is an arm preferably cast in the same piece with A, with an offset at *a*, so as to lie flat upon the side-board X. At its lower end the arm B is cast with an offset, *b'*, which, when the frame is applied to the wagon, gives a recess or socket, open at the top, to receive the

lower end of the lever L. The pivot-bolt *b* passes through the offset, through the lever, and through the box X, as shown plainly in Fig. 2. Said lever L is a flat iron bar of uniform width—at least in the neighborhood of the rack A—extending to the usual height.

L' is the brake-rod.

D is a pawl-block of peculiar construction, being formed to pass at its central part outside the rack A and at its ends to extend inward and behind the lever L, said lever passing through rectangular apertures *d'*. The pawl-block thus holds the rack A and lever L in proper relation, as shown. On its inner face the pawl-block D is provided with the depending annular projection *d*, adapted to engage the notches *n* of the rack. The block is fitted to freely slide longitudinally upon the lever L and forward and backward over the rack A, sufficient space being provided between its inwardly-directed ends to allow the block to rise and fall, so that the projection *d* may clear the notches *n n*.

E is a short pawl-lever, arranged in front of the lever L, and pivoted at *e* near the top of said lever L. It is connected by its short arm with the pawl-block D by the small rod E'.

When it is desired to lock the brake the lever L is pushed forward in the usual manner, and the block D, by its gravity, augmented in some degree by that of the pawl-lever E and the connecting-rod E', causes the projection *d* to engage with the notches *n*. To release the brake, the pawl-lever E is drawn backward, which lifts the pawl-block and directly draws the projection *d* from the engaging-notches.

The novelty of the construction described consists principally in the arrangement, with the lever and rack, of the sliding pawl D, operating by gravity alone, and so formed as to embrace both the single rack and the lever to retain these parts in proper relative position.

The pawl-block being cast in form, the attachment of the rivet *e* and the rod E' substantially comprises the hand-labor required in putting up the lock. In order that this work may be done without handling more than the parts thus connected—namely, the lever L, the pawl, and the pawl-lever—the standard, at *a'*, is preferably a separate piece from the rack A, so that said rack may be slid through the pawl-

block after the latter is connected with the lever L.

I am aware that gravity - pawls in wagon-brake locks are old, and therefore do not claim this feature independently of other features of construction and arrangement distinctly pointed out and shown.

I claim as my invention—

1. Combined with the lever L and rack A, having notches *n* upon its upper edge, a sliding pawl-block, D, adapted to embrace the rack and lever, and provided with the depending projection *d* and the lifting-lever E, together arranged and operating substantially as described.

2. Combined with the lever L and rack A,

having notches *n* upon its upper edge and arranged exterior to the lever L, the sliding pawl-block D, cast in a single piece, being recessed centrally to embrace the rack, and inwardly extended at its ends to embrace the lever both above and below the rack, and provided on its inner face with the depending projections *d*, all substantially as and for the purposes set forth.

In testimony that I claim the foregoing as my invention I affix my signature in presence of two witnesses.

SIDNEY S. HURLBUT.

Witnesses:

JOHN ARMSTRONG,
H. W. HURLBUT.