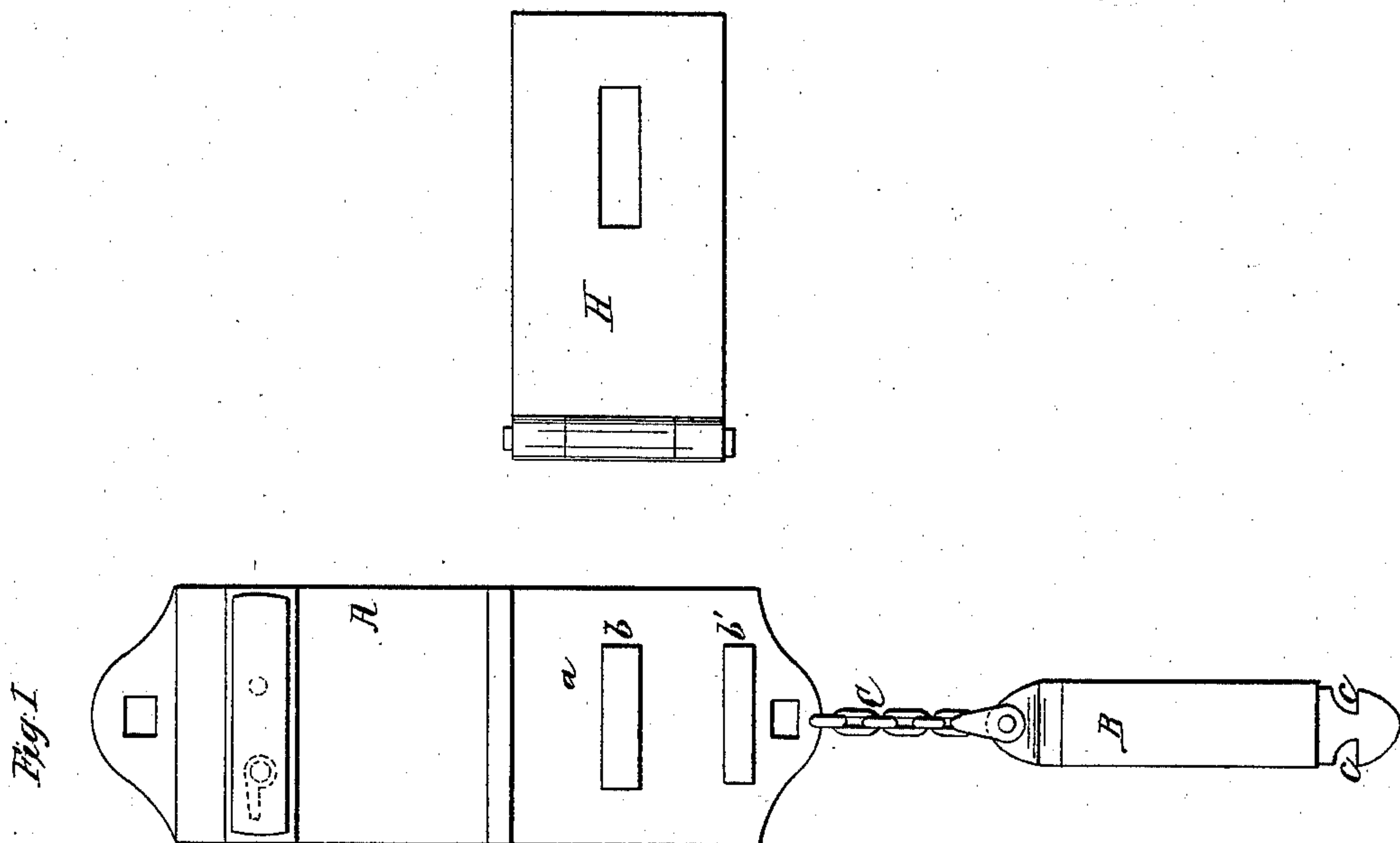
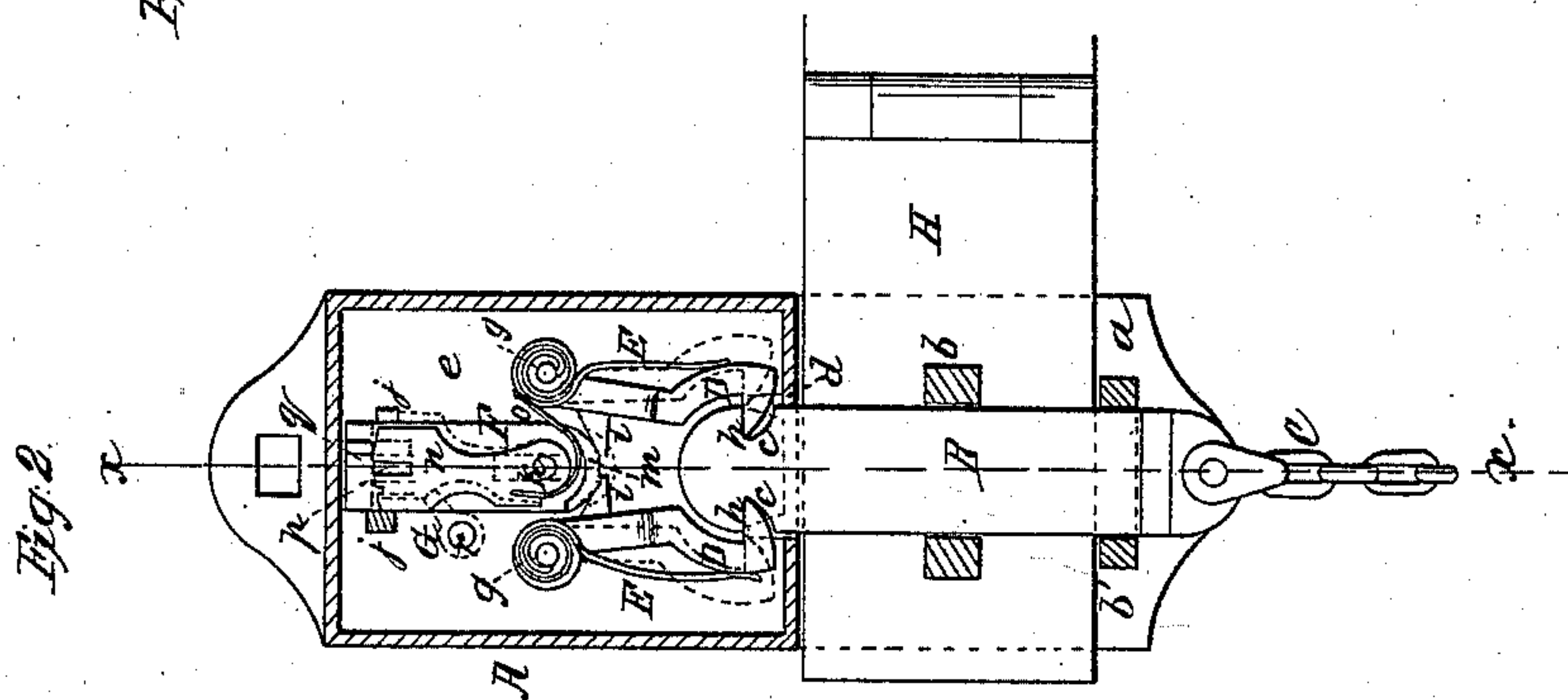
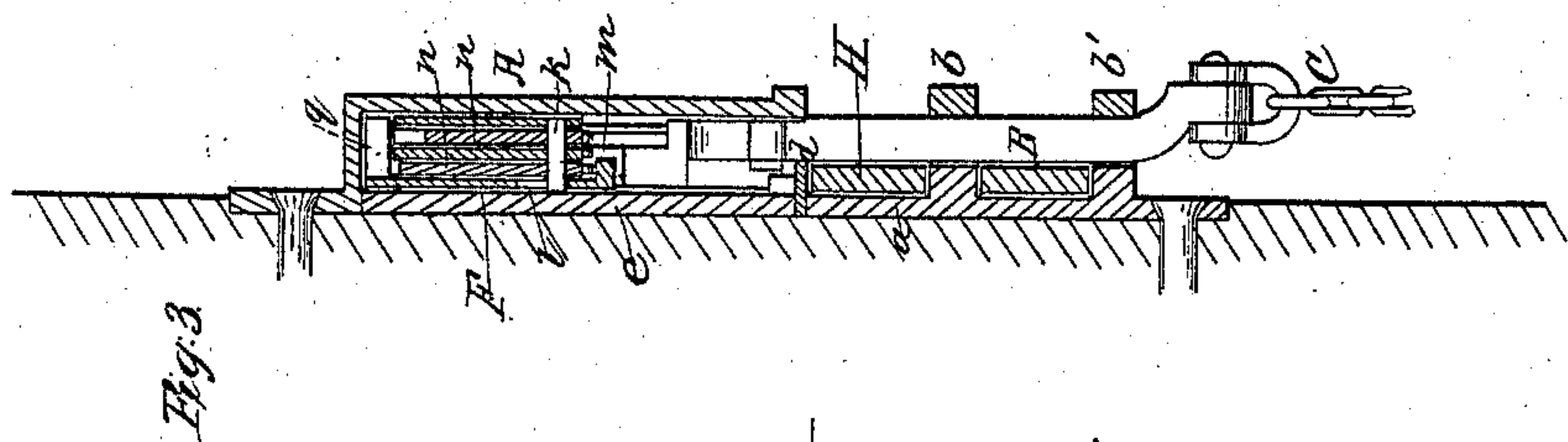


Hasp Lock.

№ 17,013.

Patented Apr. 7, 1857.



UNITED STATES PATENT OFFICE.

HENRY RITCHIE, OF NEWARK, NEW JERSEY, ASSIGNOR TO HIMSELF, SAM'L. C. THOMPSON,
AND G. W. WESTERFIELD.

CAR-LOCK.

Specification of Letters Patent No. 17,013, dated April 7, 1857.

To all whom it may concern:

Be it known that I, HENRY RITCHIE, of Newark, in the county of Essex and State of New Jersey, have invented a new and Improved Lock for Railroad Baggage and Freight Cars; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is an external view of my improvement, in an unlocked state. Fig. 2 is an internal view of ditto in a locked state, the outer plate of the casing being removed. Fig. 3 is a vertical section of ditto, (x) (x) Fig. 2 showing the plan of section.

Similar letters of reference indicate corresponding parts in the several figures.

The nature of my invention consists in the combination of the sliding plate, tumblers and jaws, arranged and operating in connection with the bolt for releasing the hasp as herein specified.

To enable those skilled in the art to fully understand and construct my invention I will proceed to describe it.

A represents the casing of the lock, which is of rectangular form, constructed of metal and having a projecting plate (a) at its lower end, the casing and plate (a) may be cast in one piece, as cast metal will generally be used for the casings. On the plate (a) the projections (b) (b') are formed, said projections having openings in them to allow the bolt B to pass through. The bolt B is of rectangular form, and is attached to the lower end of the plate (a) by a chain C. The end of the bolt that passes into the casing A is rounded as shown clearly in Fig. 2, and a notch (c) is made in each side of it. The bolt passes through an opening (d) in the lower end of the casing as shown in Figs. 2 and 3. The internal parts of the lock are all secured to the back plate (e) of the casing which is secured to the casing by a screw. To the inner side of the back plate (e) two jaws D, D, are attached. These jaws work on pivots (g) (g) attached to the plate (e). The lower end of each jaw is made in hook form, or each jaw has a plate (h) projecting inward at right angles with the other portion, as plainly shown in Fig. 2. Each jaw has a spring E bearing against it, and to the inner side of

each jaw, a beveled or inclined projection (i) is attached.

F represents a sliding plate which works between guides (j) on the back plate (e). A guide pin (k) also passes through a slot (l) in the plate F. The lower end of the plate F has a ledge (m) formed on it. On the pin (k) a series of tumblers (n) are placed, the tumblers working on the pin (k) as a center. Each tumbler is provided with a spring (o) and the upper edges of the tumblers are slotted, one slot (p) being in each tumbler. On the upper end of the plate F, there is a bar (q). This bar projects outward at right angles from the plate. The slots (p) are cut in the tumblers at varying points, and the slots in the several tumblers require to be brought in line with each other so that the plate F may be shoved down, the bar (q) passing into the slots (p) of the tumblers.

G represents the key shown in red, which works on a pin (r) in the casing. The key is provided with bits of varying lengths corresponding to the varying lengths or distances between the slots (p) in the tumblers.

From the above description of parts it will be seen that when the bolt B, is shoved into the casing A, the plates (h) (h) of the jaws will pass into the notches (c) (c) of the bolt and retain it within the case. In order to release the bolt from the jaws the key G is turned till its bits move the tumblers so that the slots (p) will be in line with each other, the lower bit then acts upon the plate F and depresses it the ledge (m) acting against the projecting inclined plates (i) on the jaws and expanding or forcing said jaws outward from each other, the bolt B when the plates (h) are thrown out from the notches (c) falling from the case by its own gravity.

H, represents the hasp which is provided with a slot (j) to allow the projection (b) to pass through it. The casing A is secured to the beam or upright adjoining the door of the car, and the hasp H is secured to the car door. The hasp is jointed to a bar which is permanently attached to the door.

It will be seen that the door may be locked and unlocked with the greatest facility, all that is required to lock the door, is merely to throw the hasp H over the plate (a), the projections (b) passing through it,

and then shoving the bolt B through the projections (b) (b') into the casing A, no key being required to lock the bolt in the casing. The bolt B by merely turning the
5 key G will drop from the casing by its own gravity.

I do not claim separately the elastic or yielding jaws D, D, for they have been previously used, neither do I claim separately
10 the tumblers (n) for they are well known, but,

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

The combination of the sliding plate F, 15 tumblers n, and jaws D, D, arranged and operating in connection with the bolt B, for releasing the hasp H, as herein specified.

HENRY RITCHIE.

Witnesses:

JOSEPH SWEENEY,
ROBERT TANGEMAN.