

(Model.)

2 Sheets—Sheet 1.

C. C. HESS.
HINGE.

No. 420,997.

Patented Feb. 11, 1890.

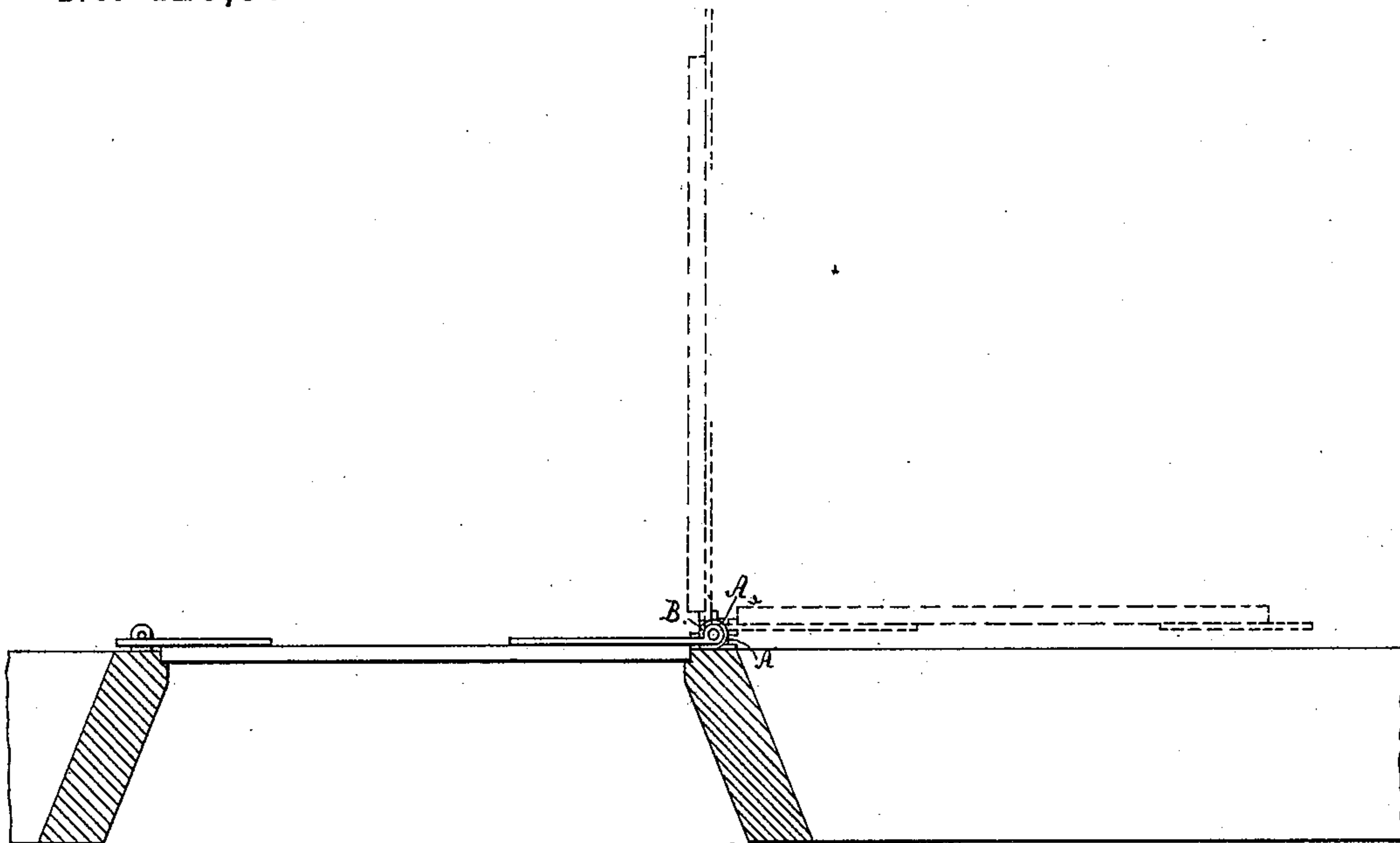


Fig. 1.

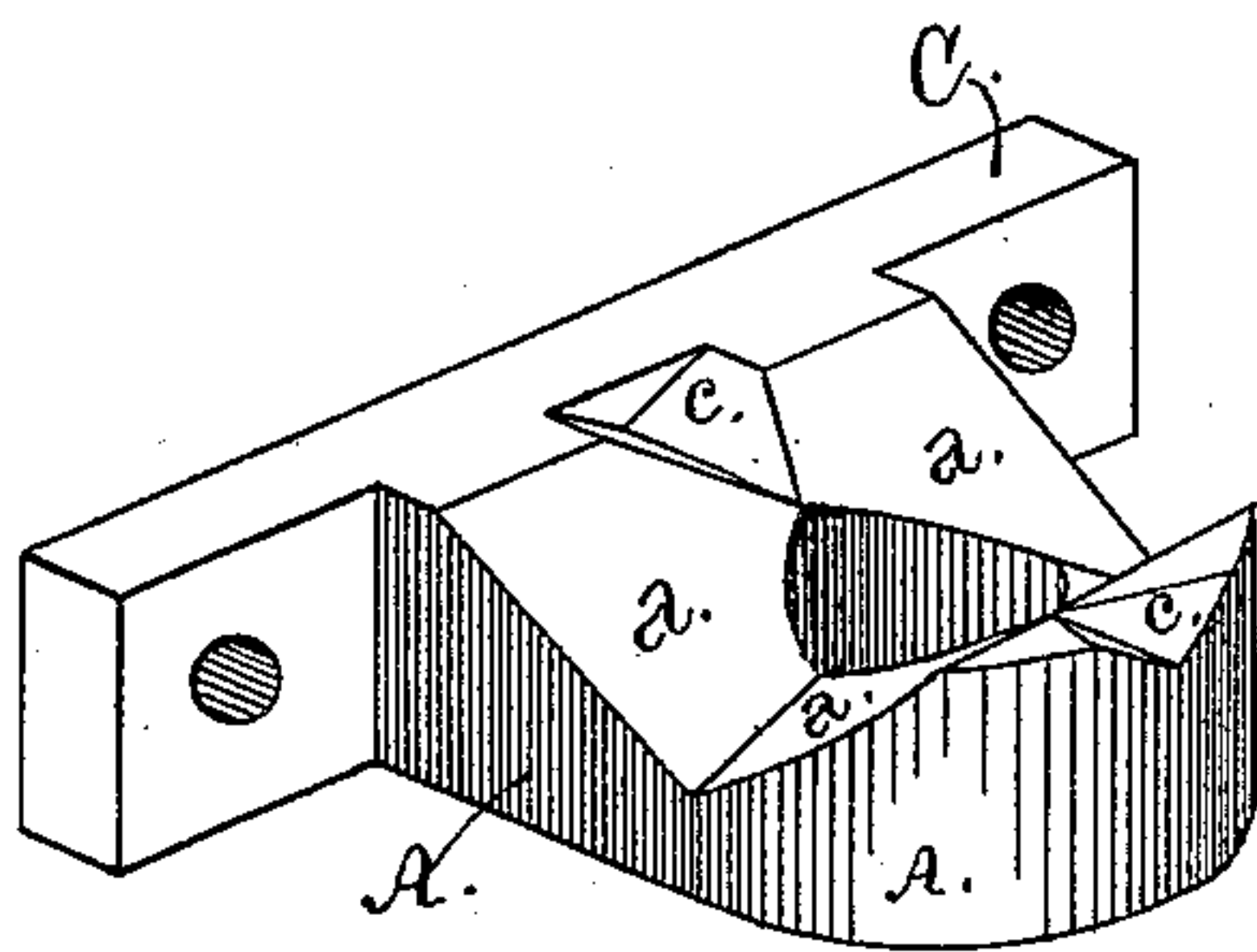


Fig. 2.

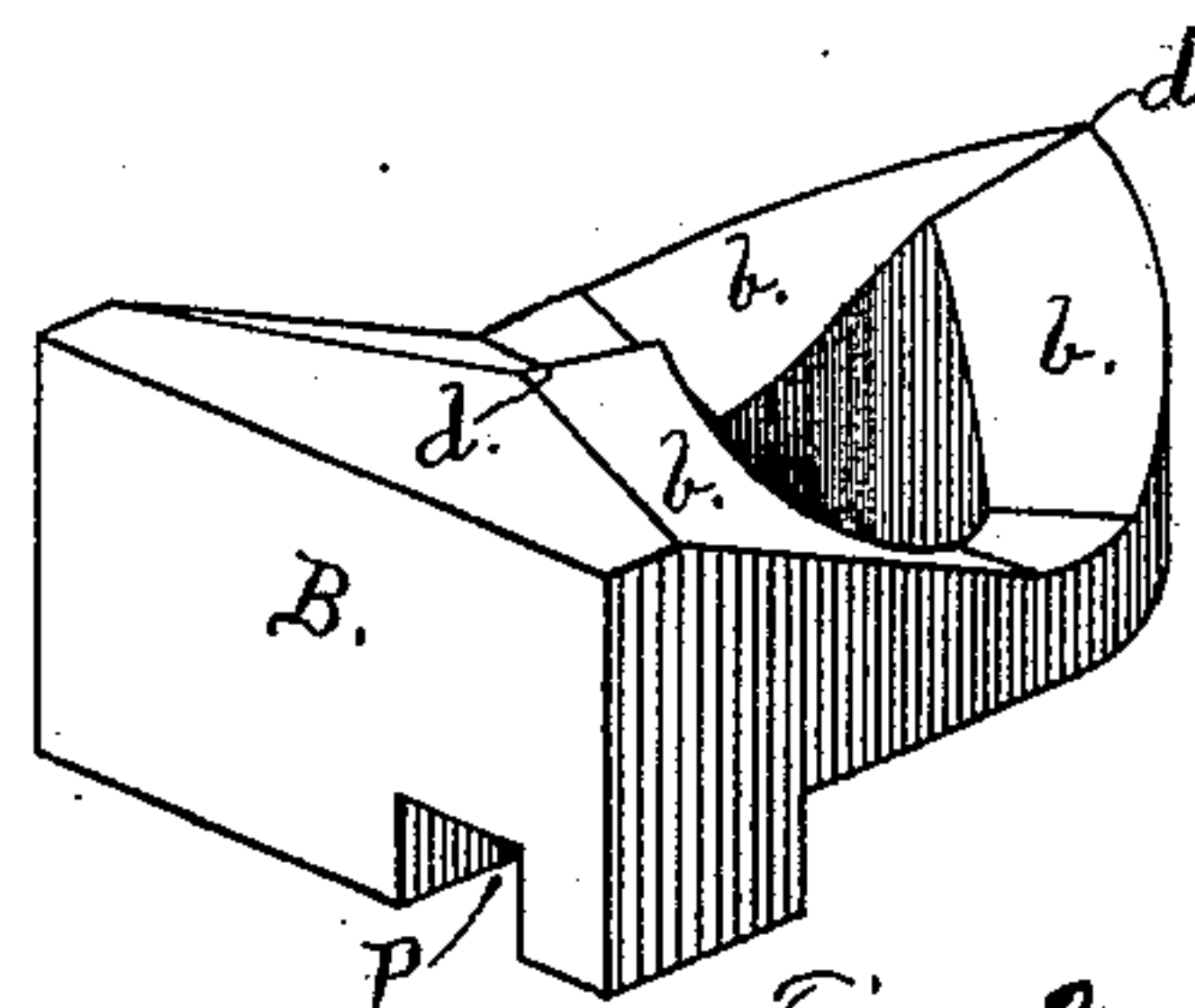


Fig. 3.

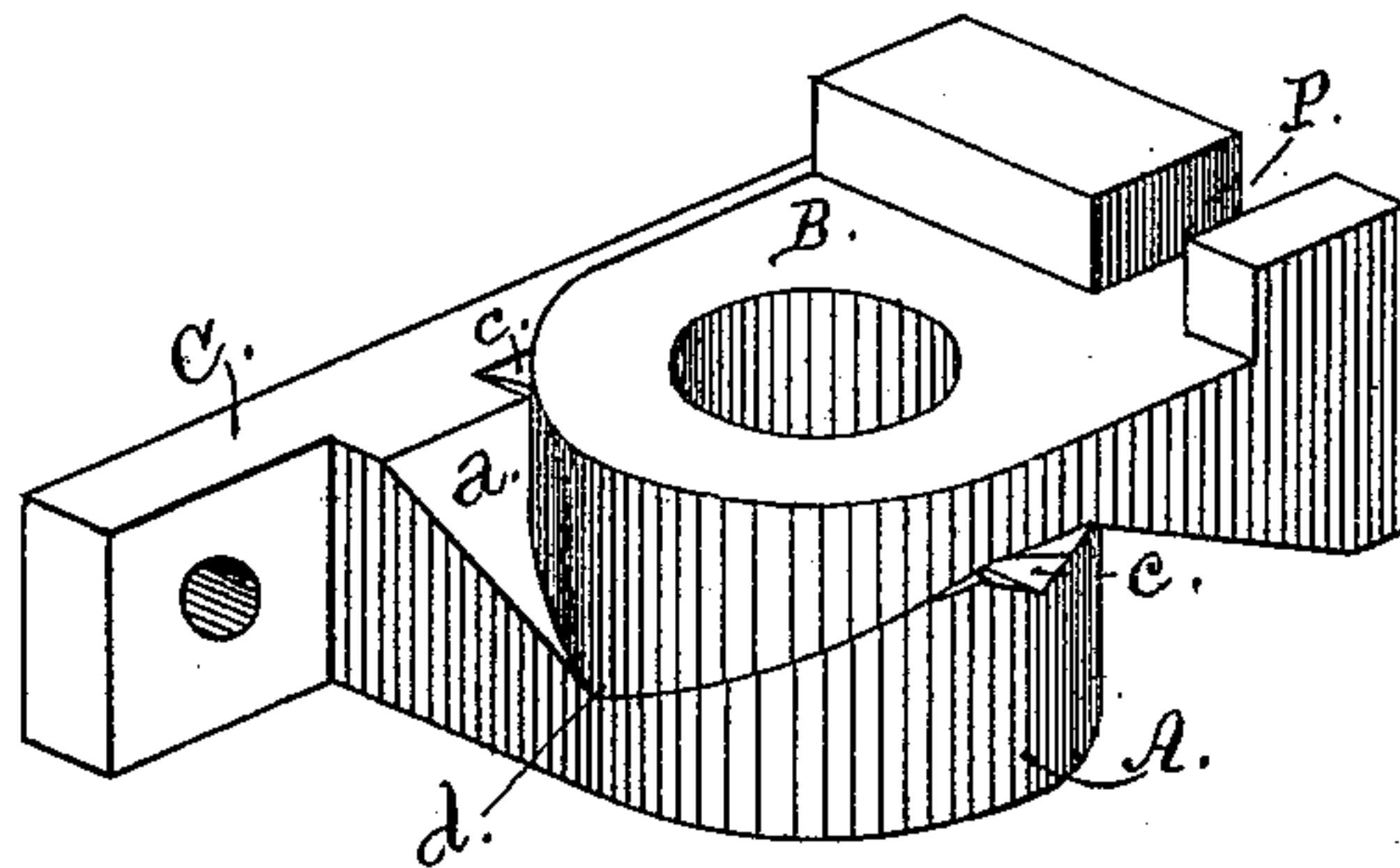


Fig. 4.

Witnesses

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(Model.)

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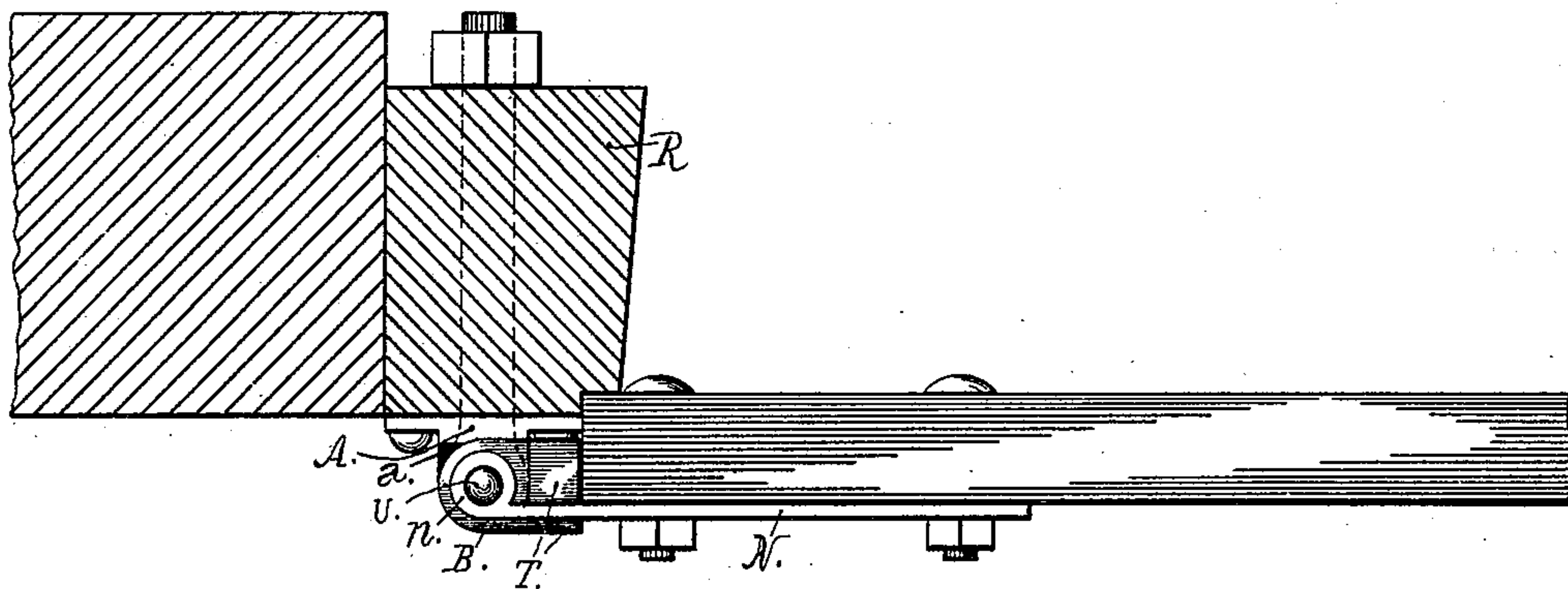


Fig. 5.

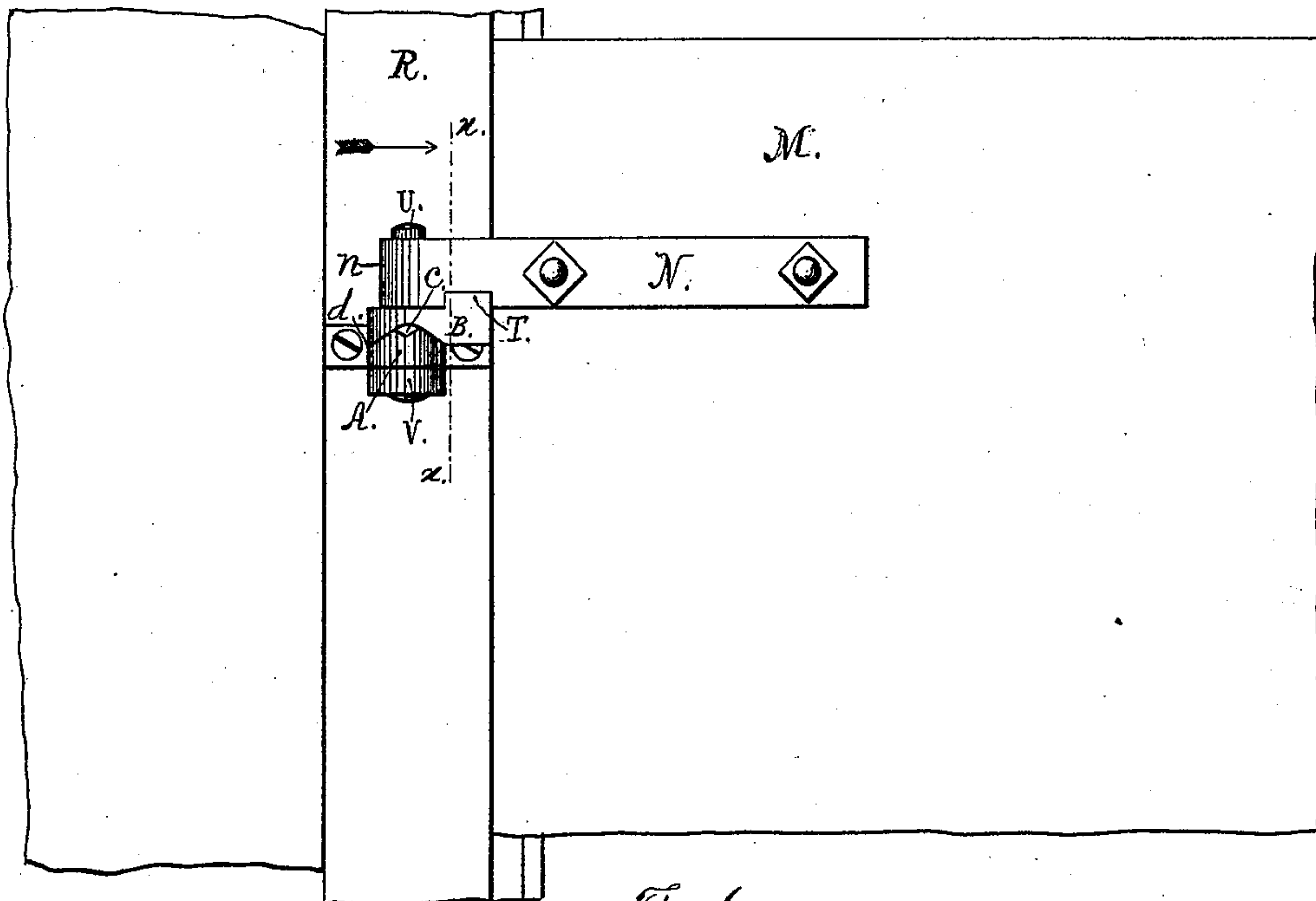


Fig. 6.

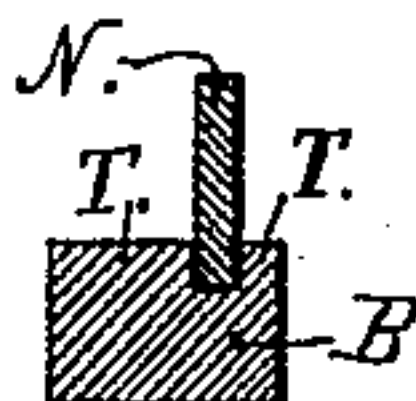


Fig. 7.

Witnesses

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UNITED STATES PATENT OFFICE.

CHRISTIAN C. HESS, OF CONESTOGA CENTER, PENNSYLVANIA.

HINGE.

SPECIFICATION forming part of Letters Patent No. 420,997, dated February 11, 1890.

Application filed February 16, 1888. Serial No. 264,168. (Model)

To all whom it may concern:

Be it known that I, CHRISTIAN C. HESS, a citizen of the United States, residing at Conestoga Center, in the county of Lancaster and State of Pennsylvania, have invented certain Improvements in Hinges, of which the following is a specification.

This invention relates to improvements in that class of hinges for storm-doors, summer-doors, gates, and the like, which are so constructed that the door or gate to which they are applied is caused to rise bodily up one inclined plane and down another while being opened or closed, so that the weight of such door or gate will operate to keep it shut, and thus render unnecessary the use of springs or supplemental weights for this purpose; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a top view of a gate hung by means of my hinge; Fig. 2, a perspective view of the bracket or stationary portion. Fig. 3 is a perspective bottom view of the movable part, and Fig. 4 is an upper perspective view of the two parts united. Fig. 5 is a top view of one of my hinges, showing the construction of the movable portion when made separate from the strap and eye; Fig. 6, a side view of the same, and Fig. 7 a vertical transverse section through the line *x x* of Fig. 6.

Similar letters indicate like parts throughout the several views.

As will be observed, my improved hinge consists of two principal parts, to wit: a bracket or stationary portion, which is secured rigidly to the frame of the door, and a movable portion which is secured to the door. The stationary portion is cast separately from the pintle, so as to be used with the pintle of any ordinary hinge.

In the drawings, A represents the bracket part of the hinge. The top of the same is beveled on two opposite sides *a*, and has notches *c* in the top of the center, parallel with said beveled sides.

The swinging part B of the hinge has its under face cut out, as at *b*, to correspond with the top of the stationary part, and has a ridge or lip *d* for engaging the notches *c*.

The part B can be used with the upper knuckle of any ordinary hook-and-eye hinge. For this purpose it is provided with a ridge T on its upper outer edge, in which is formed a slot P, to receive the strap N, by which the eye *n*, which engages the pintle U, is connected with the gate or door. The pressure of the strap against the sides of the slot, caused by the swinging of the gate, turns the part B with it.

In Figs. 2, 3, and 4 the bracket and upper portion B are illustrated as made separate and disconnected from the pintle, and the strap uniting the parts with the gate, while Figs. 5, 6, and 7 show the same separate parts put together to form a hinge. As shown in Figs. 2, 3, and 4, the bracket A and swinging part B are cast with an aperture through them to engage the pintle.

Fig. 6 represents a side view of all the parts of my invention put together in working order. In this figure V represents the head of the spike driven into the post R and having the pintle U formed on its upper surface. The bracket A is engaged with the pintle by means of the perforation through its center, (shown in Fig. 2,) and is fastened to the post by screws or bolts. Above the bracket the swinging part B of the hinge is also engaged with the pintle, and upon it the eye *n* of the strap N rests, the strap passing through the slot P of the ridge or flange T to the door or gate M, to which it is secured.

The bracket portion is secured to the frame by means of a back plate G, and is so placed that when the gate is closed the beveled portion of the same and the corresponding part of B coincide with the gate on one of the beveled sides of the bracket, and when it is wide open they also coincide, but with the movable part of the hinge in the reverse position. When half-open, the gate is so held by the engagement of the lip *d* with the corresponding notches *c*.

In the top view, Fig. 1, of the drawings the gate is shown as closed by the full lines, and in the two open positions by the dotted lines.

As will be observed, in any movement made by the gate it must be raised up and sinks as it assumes any one of the three before-described positions.

Having thus described my invention, what

I claim as new, and desire to secure by Letters Patent, is—

1. In a hinge, the combination, with a plate or spike supporting a pintle U, of a bracket
5 A, removably engaged over the pintle, provided with recesses in its upper surface and fastened to the door-post, and a swinging part B, provided with projections on its lower surface adapted to engage the said recesses
10 in the bracket A, and connected with the strap N, secured to the gate, substantially as and for the purpose specified.

2. In a hinge, the combination, with a plate or spike supporting a pintle U, of a bracket
15 removably engaged over the pintle, provided

with recesses in its upper surface and fastened to the door-post, and a swinging part B, provided with projections on its lower surface adapted to engage said recesses in the bracket A, the part B having a slotted flange T formed
20 integral therewith, and a strap N engaging the slot in said flange and have its eye n engaging the pintle above the part B, all constructed and operating substantially as and for the purpose specified.

CHRISTIAN C. HESS.

Witnesses:

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WM. R. GERHART.