

No. 716,892.

Patented Dec. 30, 1902.

H. HEINEMAN.
SOFA, COUCH, &c.
(Application filed Dec. 9, 1901.)

3 Sheets—Sheet 1.

(No Model.)

Fig. 1

Fig. 2

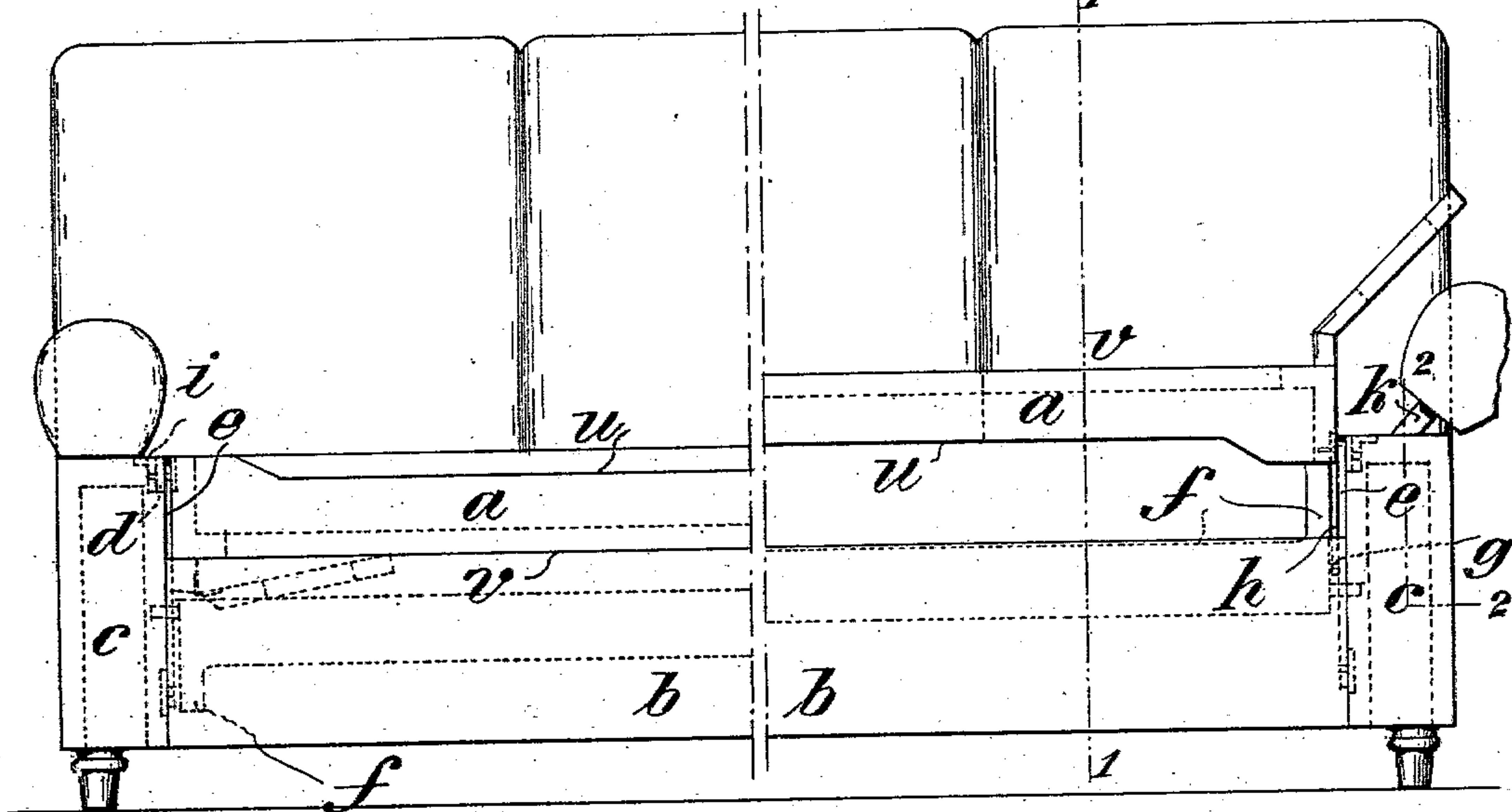
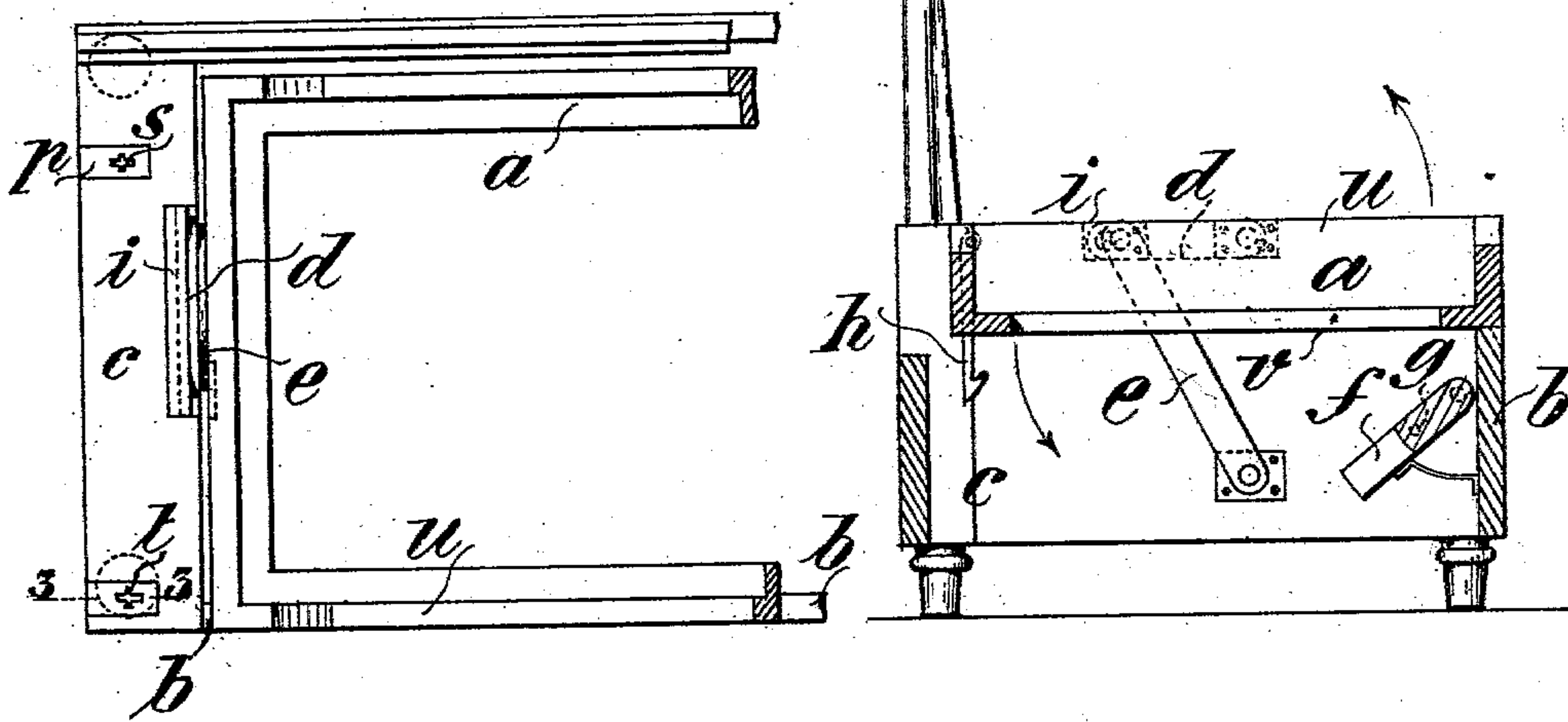


Fig. 3

Fig. 4



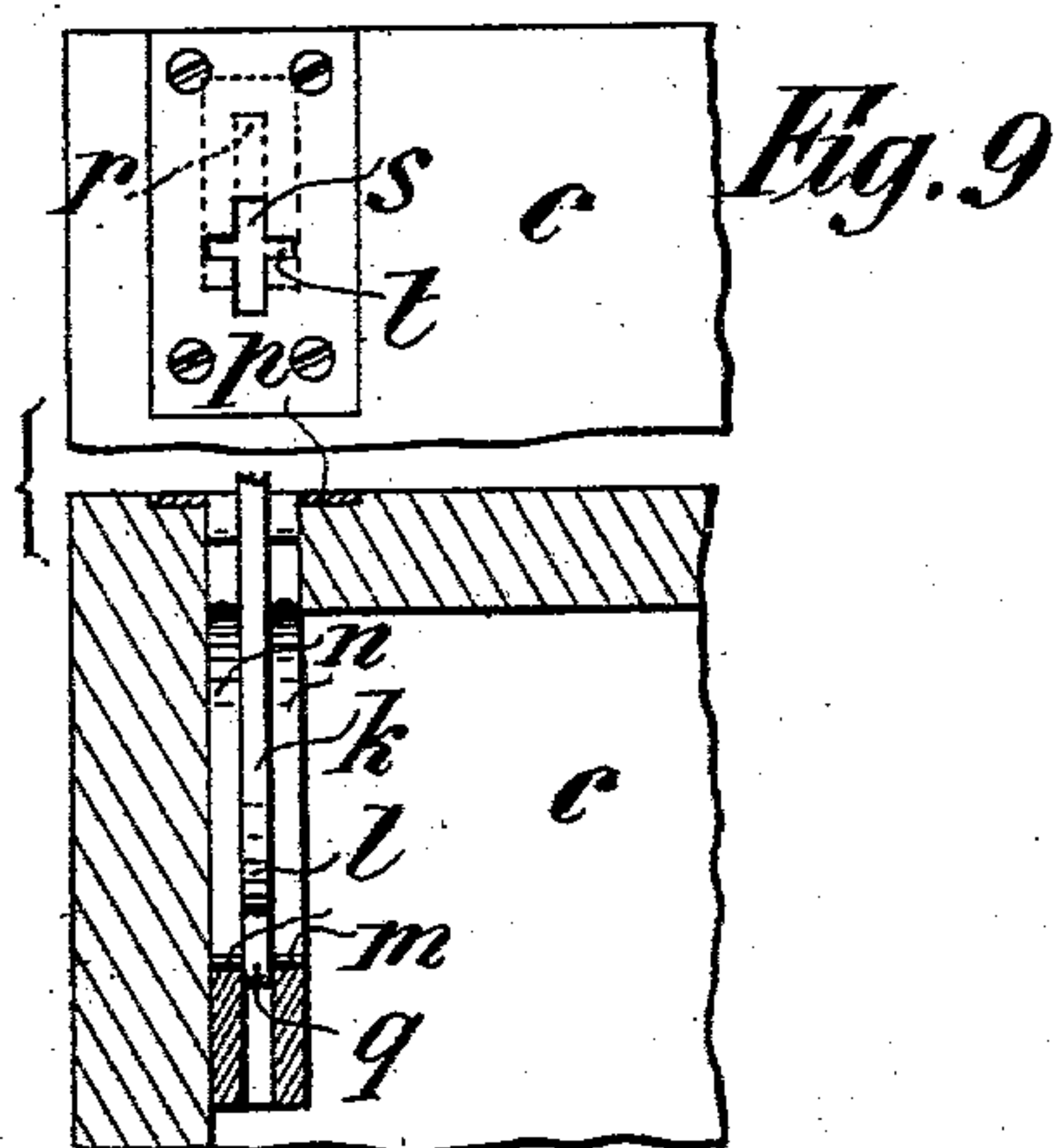
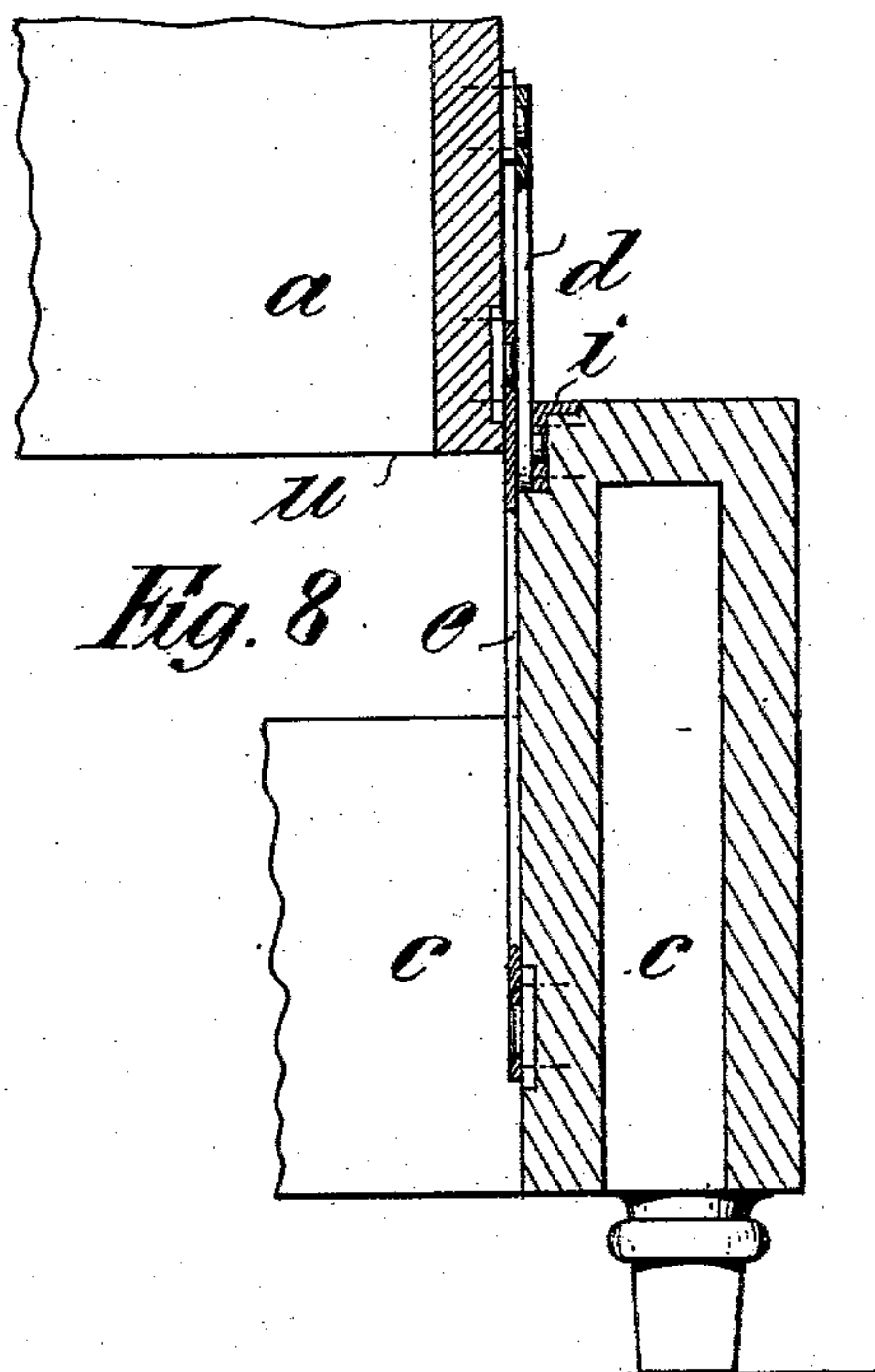
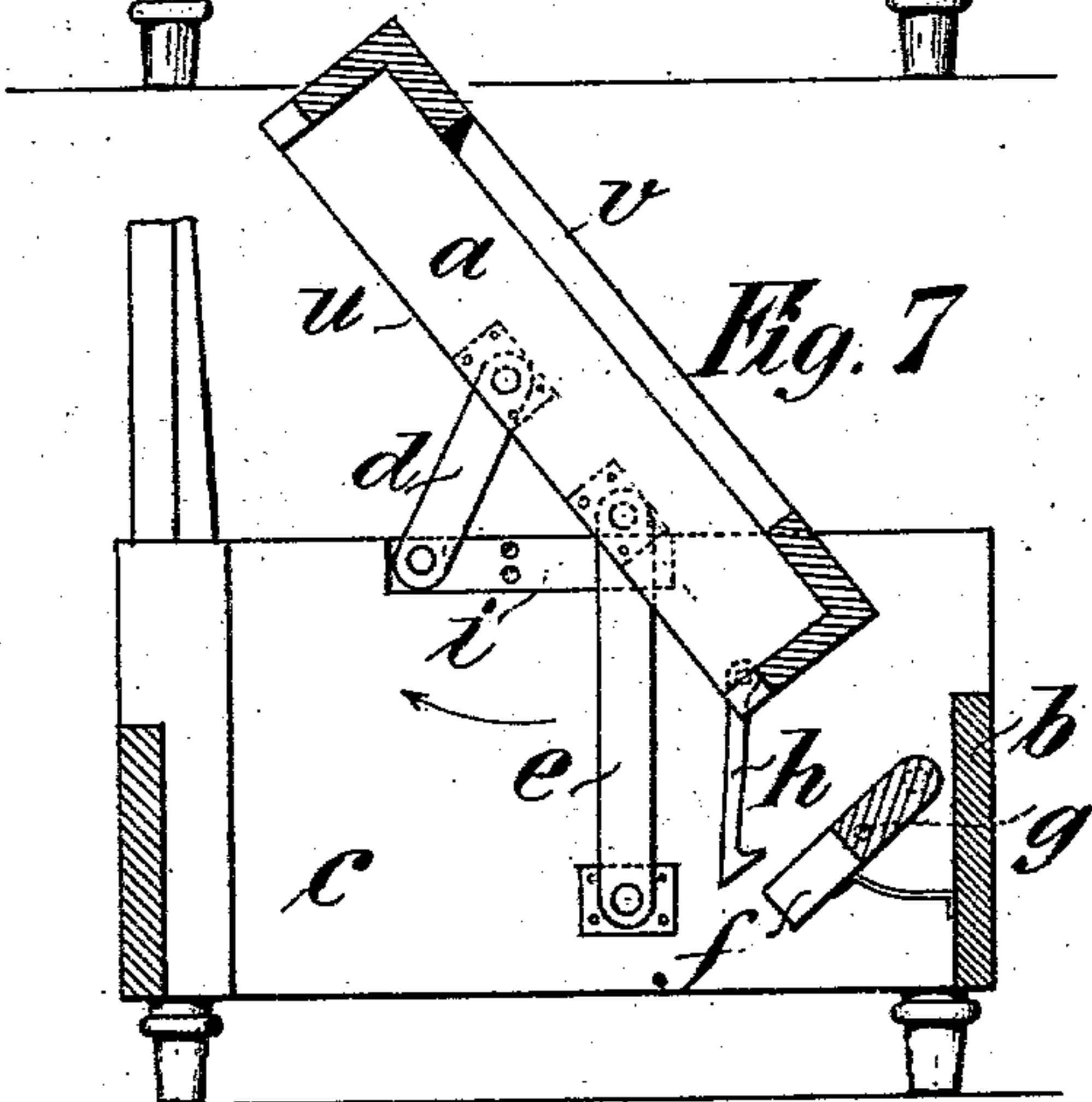
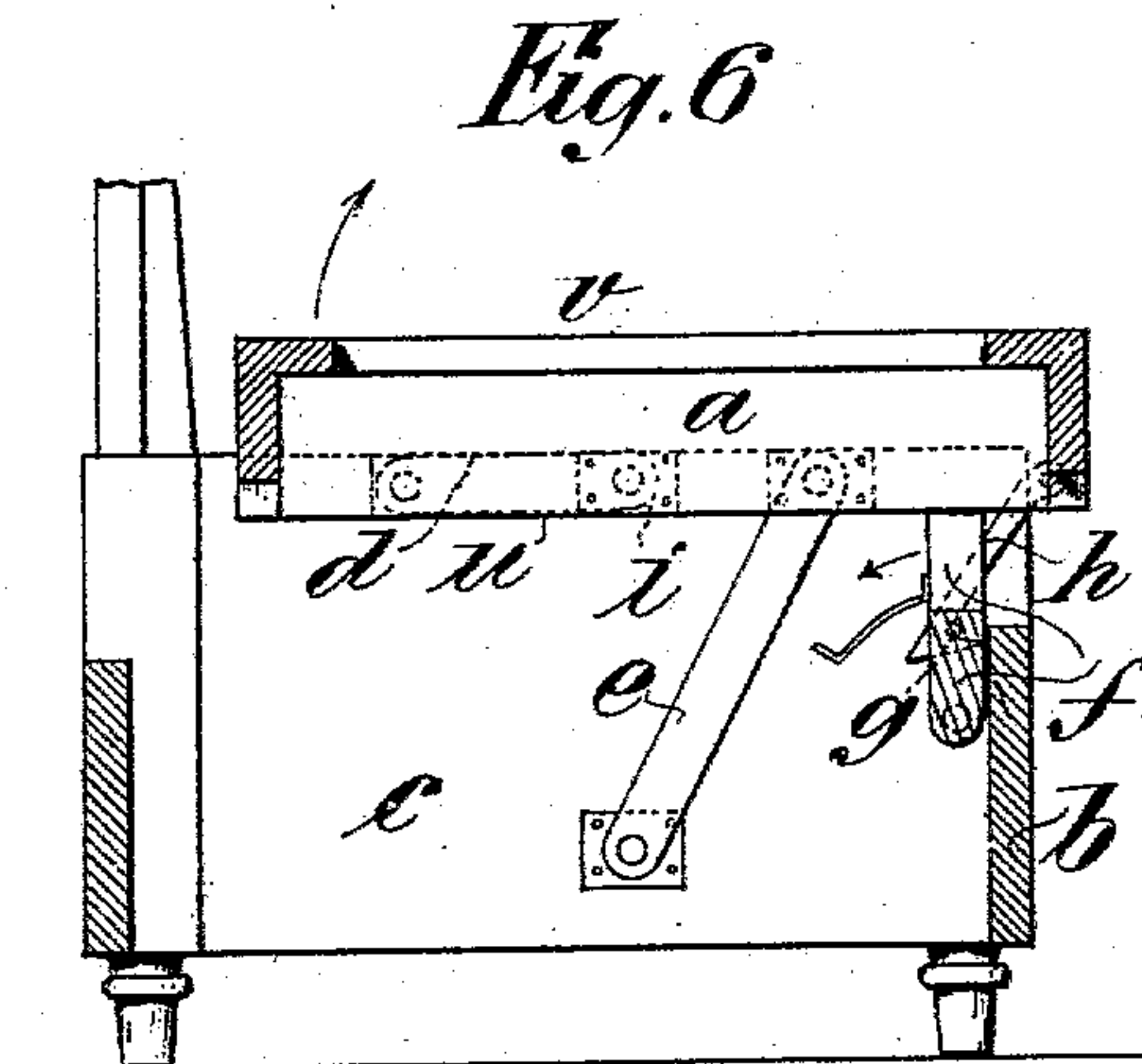
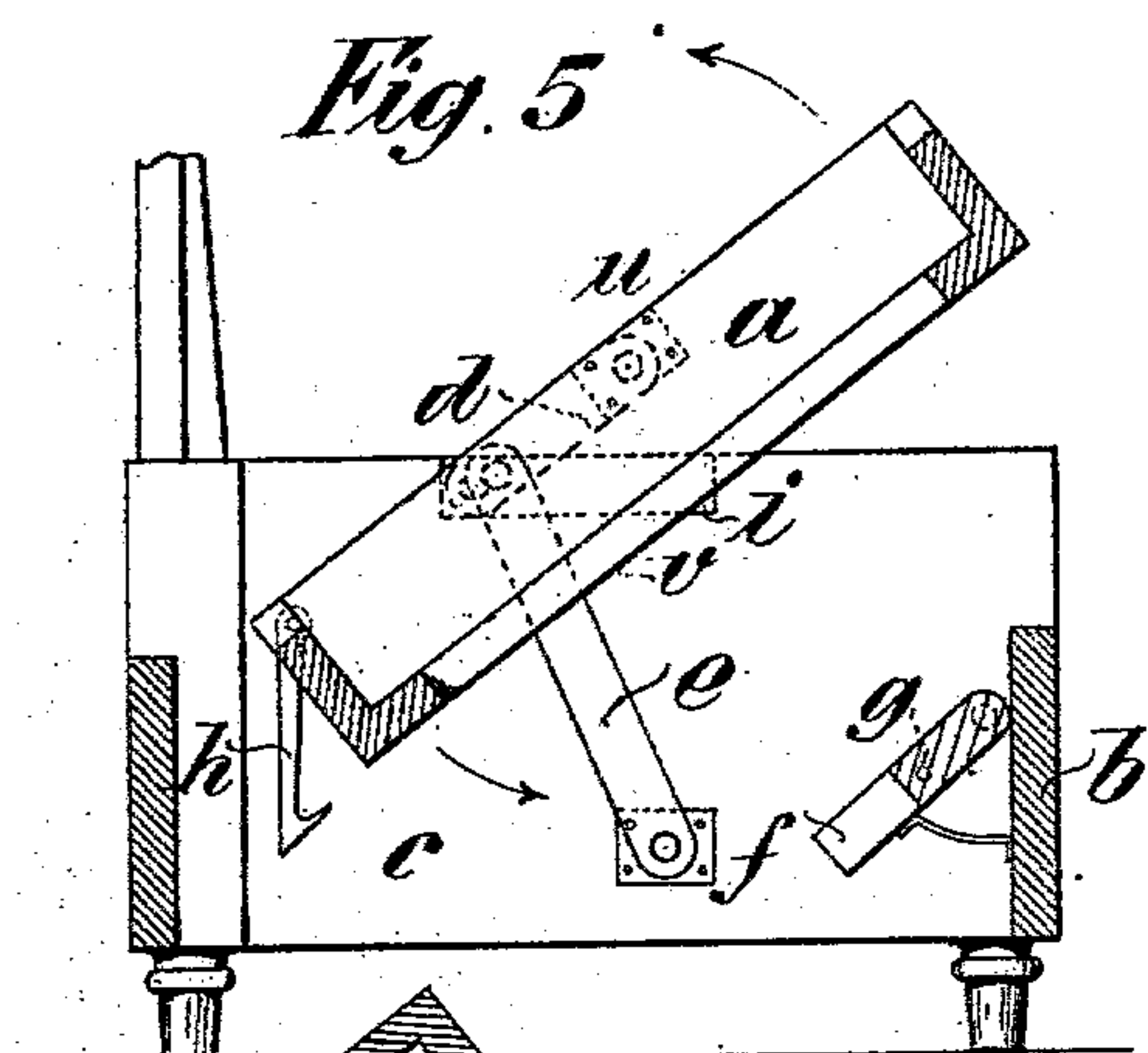
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3 Sheets—Sheet 2.



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Fig. 10

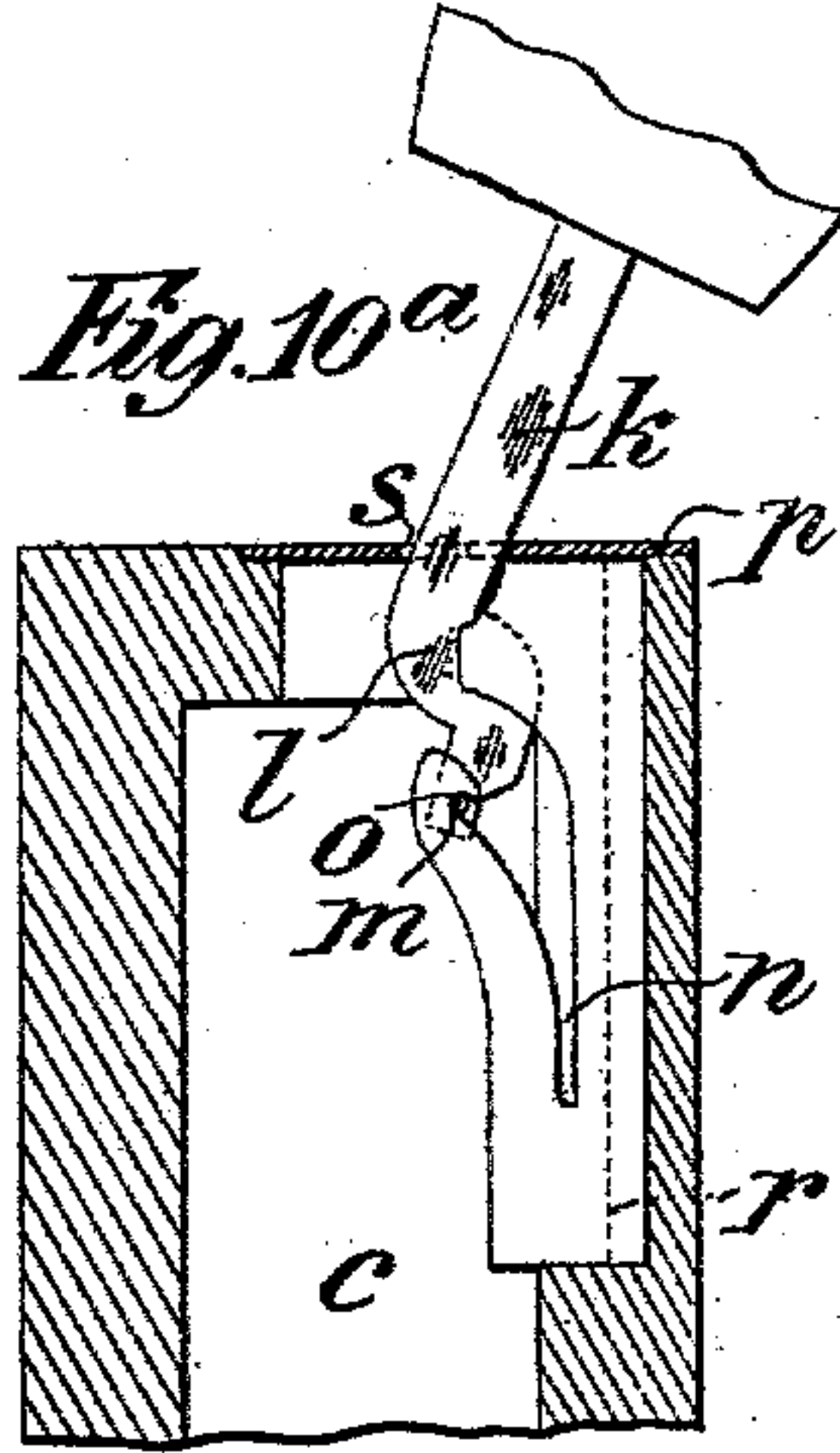
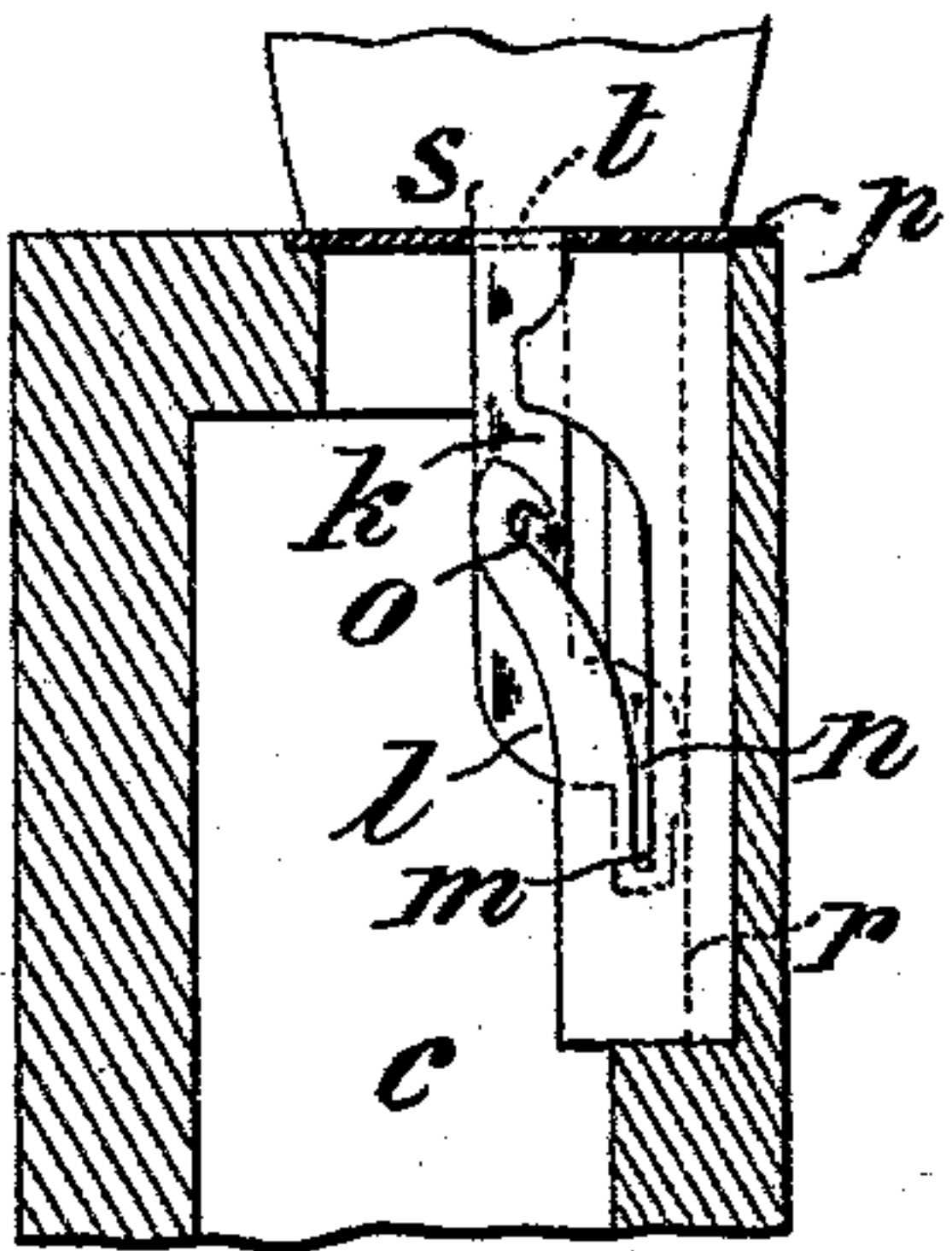


Fig. 10b

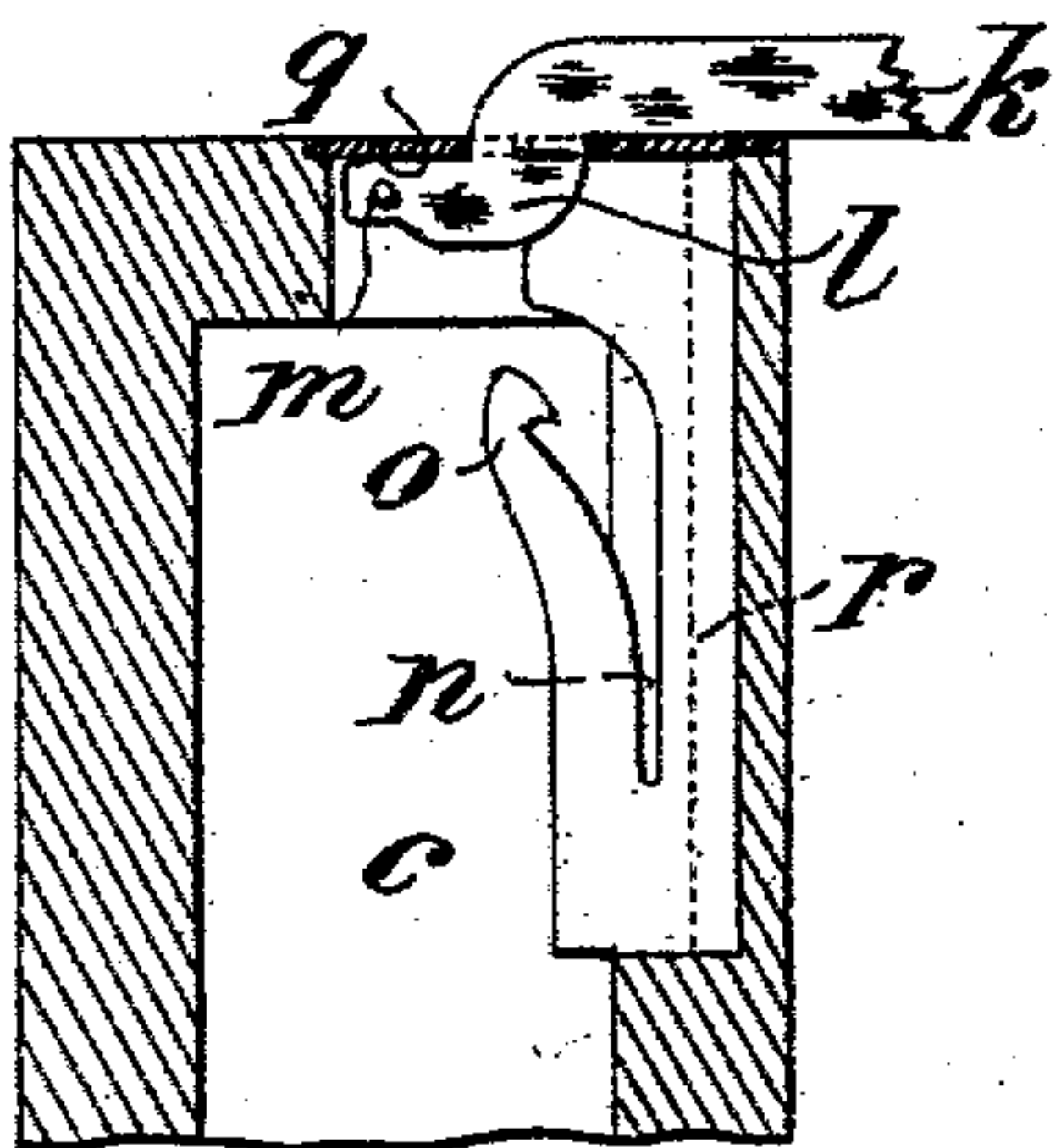
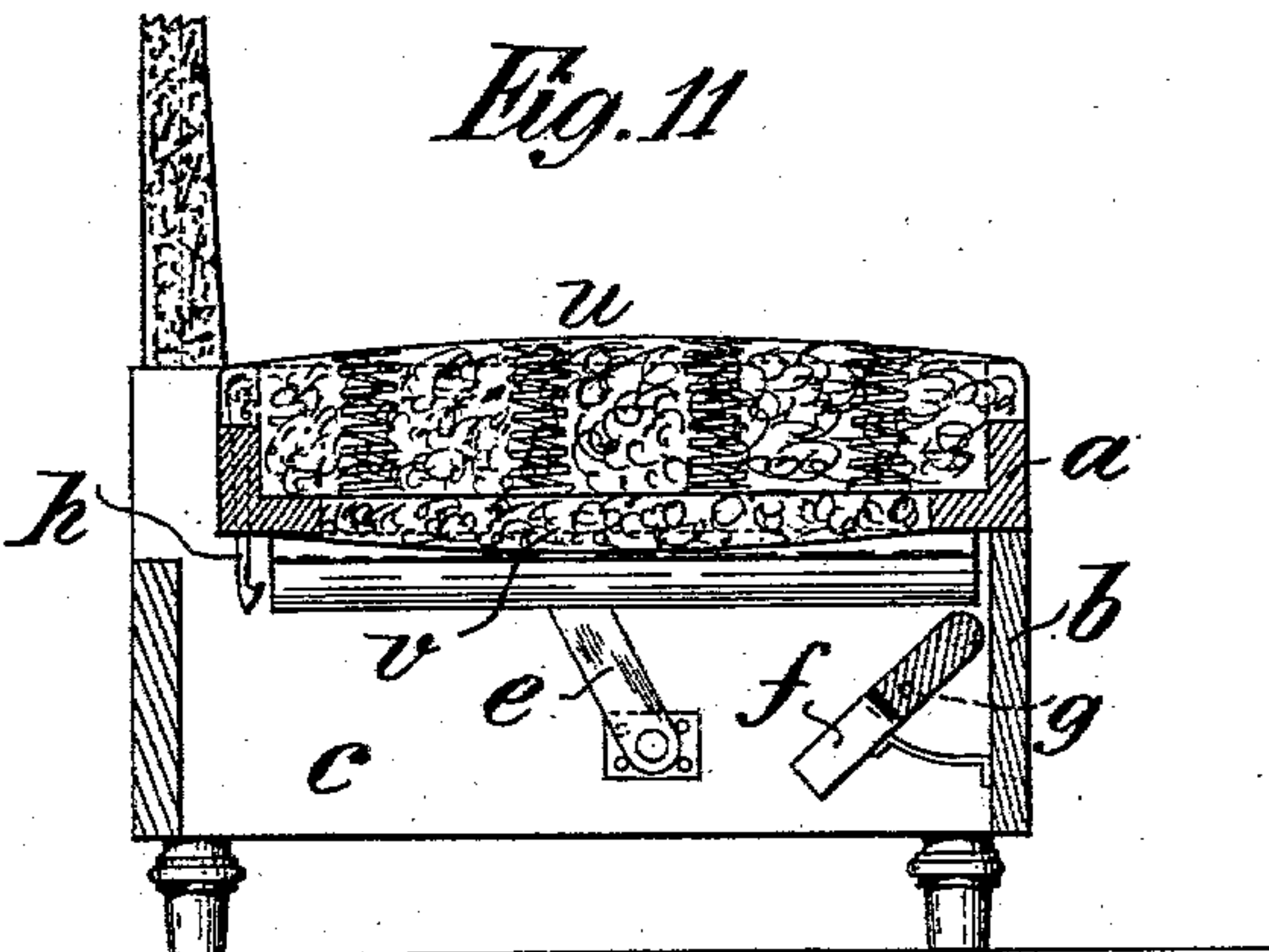


Fig. 11



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UNITED STATES PATENT OFFICE.

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SOFA, COUCH, &c.

SPECIFICATION forming part of Letters Patent No. 716,892, dated December 30, 1902.

Application filed December 9, 1901. Serial No. 85,248. (No model.)

To all whom it may concern:

Be it known that I, HEINRICH HEINEMAN, a citizen of the Swiss Republic, residing and having my post-office address at Neugasse 66, Zurich III, Switzerland, have invented certain new and useful Improvements Relating to Sofas, Couches, and the Like, of which the following is a specification.

The present invention relates to sofas, couches, and the like; and it consists of a frame therefor with a reversible seat, the latter being provided on one side with a cushion or the like for sitting purposes and on the other side with a mattress.

One form of the invention is represented in the annexed drawings.

Figure 1 is a front view of one-half of the sofa-frame with the seat-cushion uppermost, and Fig. 2 a front view of the other side of the frame with the mattress uppermost. Fig. 3 is a plan view of part of the frame with the arm or side rest removed. Figs. 4, 5, 6, and 7 are vertical sections on the line 1 1 of Fig. 2, the reversible seat being in a different position in each. Fig. 8 is a detail view in section on a larger scale; Fig. 9, a vertical section on the line 2 2 of Fig. 2 on a larger scale. Fig. 10 is a vertical section on the line 3 3 of Fig. 3, also on a larger scale. Figs. 10^a and 10^b illustrate the mechanism shown in Fig. 10 in two different positions. Fig. 11 is a sectional view illustrating the construction of the cushion and the mattress.

c represents the sofa-frame; *b*, the front part thereof; *a*, the reversible seat; *u*, the cushion side of the latter, and *v* the mattress side.

d and *e* represent two pairs of connecting-rods. The rods *e* are pivoted at one end to the outer vertical narrow sides of the reversible seat *a* outside the longitudinal center of the seat and at the other end (at the points determined by the two positions of rest of the seat) to the lower narrow inner side surfaces of the sofa-frame *c*, so that according to the resting position of the seat *a* their upper ends are inclined forward and rearward. With the reversible seat *a* in its position of rest the connecting-rods *d* are always horizontal. They are pivoted at one end to the vertical edge parts of the narrow sides of the cushion side *u* of the reversible seat *a*, somewhat to the side of the longitudinal center of the seat,

and at the other end they are correspondingly pivoted in recesses *i* in the rear part of the vertical edges of the narrow sides of the sofa-frame *c*. In their position of rest they lie in the said recesses *i* and bear upon the lower horizontal sheathed surfaces of the latter.

By the arrangement of the connecting-rods *d* slightly to the side of the longitudinal center of the narrow sides of the seat the latter is given when the mattress side *v* is uppermost an elevated forward position, which facilitates the upholstering of the back of the sofa and renders it possible to use the entire surface of the mattress side *v*. That part of the seat *a* which is nearest the back bears upon the connecting-rods *d*, which rest in the recesses *i*. When the side *u* is uppermost, the said part of the seat *u* is supported by the connecting-rods *e*, and when the side *v* is uppermost the reversible seat *a* is held in position by the pull of said connecting-rods *e*.

That part of the seat *a* which is foremost when the cushion side *u* is uppermost rests upon the forward part of the frame *c*. When the mattress side *v* is uppermost, the hinged or pivoted supports *f*, operating as a gravity-prop inside the narrow sides of the sofa-frame *c*, serve as rests for the forward part of the seat *a*. The supports *f* are connected together by a rod, and the one shown in the drawings is provided with a pin *g*, which can be engaged by a hook *h* on the seat *a* when the mattress side *v* of the latter is turned upward, so that said seat *a* can lift up the two supports *f*. When the mattress side *v* is turned back to its downward position, the hook *h* is removed from the pin *g* and the rotation of the seat *a* turns down the supports *f*.

The rotation of the seat *a* when the cushion side is uppermost is effected by rotating the forward part of said seat in the direction of the arrows, Figs. 4 and 5, the connecting-rods *d* and *e* positively guiding each other. The ends of the rods *d* connected to the seat *a* are thus rotated upwardly and to the rear, and the ends of the rod *e* connected to the seat *a* are rotated forward. When the rods *d* are almost vertical and are prevented from further rotation by the pull of the rods *e*, the seat will continue to rotate on its pivots on the rods *d* with the rods *e* until the cushion side *u* is downwardly inclined. By the pull on the seat of the rods *e*, which have then

passed their highest position, the rods *d* are moved forward with the rotation of the latter until the seat *a* and the rods *d* and *e* have reached their respective positions of rest.

5 To reverse the mattress side *v* again, it is rotated downward at the front and toward the rear. Otherwise the operation is the same and can be easily understood by the aid of the arrows, Figs. 6 and 7.

10 The side or arm rests, which if in a vertical position would interfere with the rotation of the seat *a*, are adjustable in an inclined and horizontal position. Each side rest is provided with two supports *k*, and the lower
15 part *l* of each support is rectangularly bent in the direction opposite the seat *a*. The bent part is provided with an extension *q*, and in the latter a pin *m* is arranged. Each support *k* can slide in a slot *r* in the narrow
20 side of the frame *c*, and for the pin *m* a groove *n*, transverse to the groove *r*, is provided. This groove *n* gradually widens toward the upper part of the frame in the direction of the seat *a*, as shown at *w*, and ultimately
25 passes through part of the wall of the narrow side of the frame *c*, and the thus-formed upward end of this part of said wall is made in the form of a hook *o*, directed toward the widened part of the groove *w*. Near each
30 groove *r* the upper surface of each narrow side of the frame *c* is provided with a closing-plate *p*, having two slots *s* and *t* transverse to each other for accommodating the support *k* and the pins *m*. When said pins are in
35 the guiding-grooves *n*, the side rests are in a vertical position, Fig. 10. An inclined position of the side rests is obtained by raising or removing their supports *k* from the grooves *r* until the pins *m* enter the widened part *w*
40 of the grooves and engage the hooks *o*, Fig. 10^a. Then when the pins are moved through the openings above the hooks *o* the extensions *q* of the bent parts *l* lie against the under surfaces of the plates *p*, and the side rests
45 will assume a horizontal position, Fig. 10^b.

I declare that what I claim is—

1. In a sofa, couch or the like, the combination with a frame of a reversible seat provided on one side with a cushion and on the
50 other side with a mattress, two pairs of connecting-rods pivoted at one end to the outer side of the ends of said seat and at the other end to the inner side of the ends of the frame, a gravity-prop for supporting the front end
55 of the seat when the mattress side is uppermost and means connected to the seat for engaging and raising said gravity-prop into supporting position when the seat is revolved substantially as described.

60 2. The combination with a frame having recesses of a reversible seat provided on one side with a cushion and on the other side with a mattress, two pairs of connecting-rods pivoted at one end to the outer side of the ends
65 of said seat and at the other end to the inner side of the ends of the frame, one of said pairs of rods being pivoted to the seat outside the

longitudinal center thereof, and the other pair adapted to enter said recesses in the frame
70 when the seat is in its position of rest, a gravity-prop for supporting the front end of the seat when the mattress side is uppermost, and means for engaging and raising said gravity-prop into supporting position when the seat
75 is revolved.

3. The combination with a frame having
75 horizontal recesses of a reversible seat provided on one side with a cushion and on the other side with a mattress, two pairs of connecting-rods pivoted at one end to the outer
80 side of the ends of said seat and at the other end to the inner side of the ends of the frame, one of said pairs of rods being pivoted to the seat outside the longitudinal center thereof and the other pair adapted to enter said hori-
85 zontal recesses in the frame when the seat is in its position of rest, pivoted arms adapted to support the front end of the seat when the mattress side is uppermost, hooks pivoted to
90 said seat for engaging and raising said arms into supporting position when the seat is revolved.

4. The combination with a frame having
95 horizontal recesses of a reversible seat provided on one side with a cushion and on the other side with a mattress two pairs of connecting-rods pivoted at one end to the outer side of the ends of said seat and at the other
100 end to the inner side of the ends of the frame, one of said pairs of rods being pivoted to the seat outside the longitudinal center thereof and the other pair adapted to enter horizontal recesses in the frame when the seat is in
105 its position of rest, pivoted arms adapted to support the front end of the seat when the mattress side is uppermost, hooks pivoted to said seat for raising said arms into supporting
110 position, adjustable arm-rests, normally projecting over the ends of said seat, and means for holding said arm-rests in inclined and horizontal positions, substantially as described.

5. The combination with a frame having
115 grooves therein of a reversible seat provided on one side with a cushion and on the other side with a mattress pivoted to revolve on a horizontal axis in relation to said frame, lateral arm-rests normally projecting over the
120 ends of said seat, carriers for said rests adapted to enter said grooves in the frame, said carriers having bent ends carrying pins, a hooked guide in the frame to hold the carriers in an inclined position free of said seat,
125 and slotted cover-plates fixed to the frame above said grooves through which plates the carriers pass and against which said pins abut when the carriers are in a horizontal position, substantially as described.

In witness whereof I have signed this specification in the presence of two witnesses.

H. HEINEMAN.

Witnesses:

HERM. SCHILLING,
A. LIEBERKNECHT.