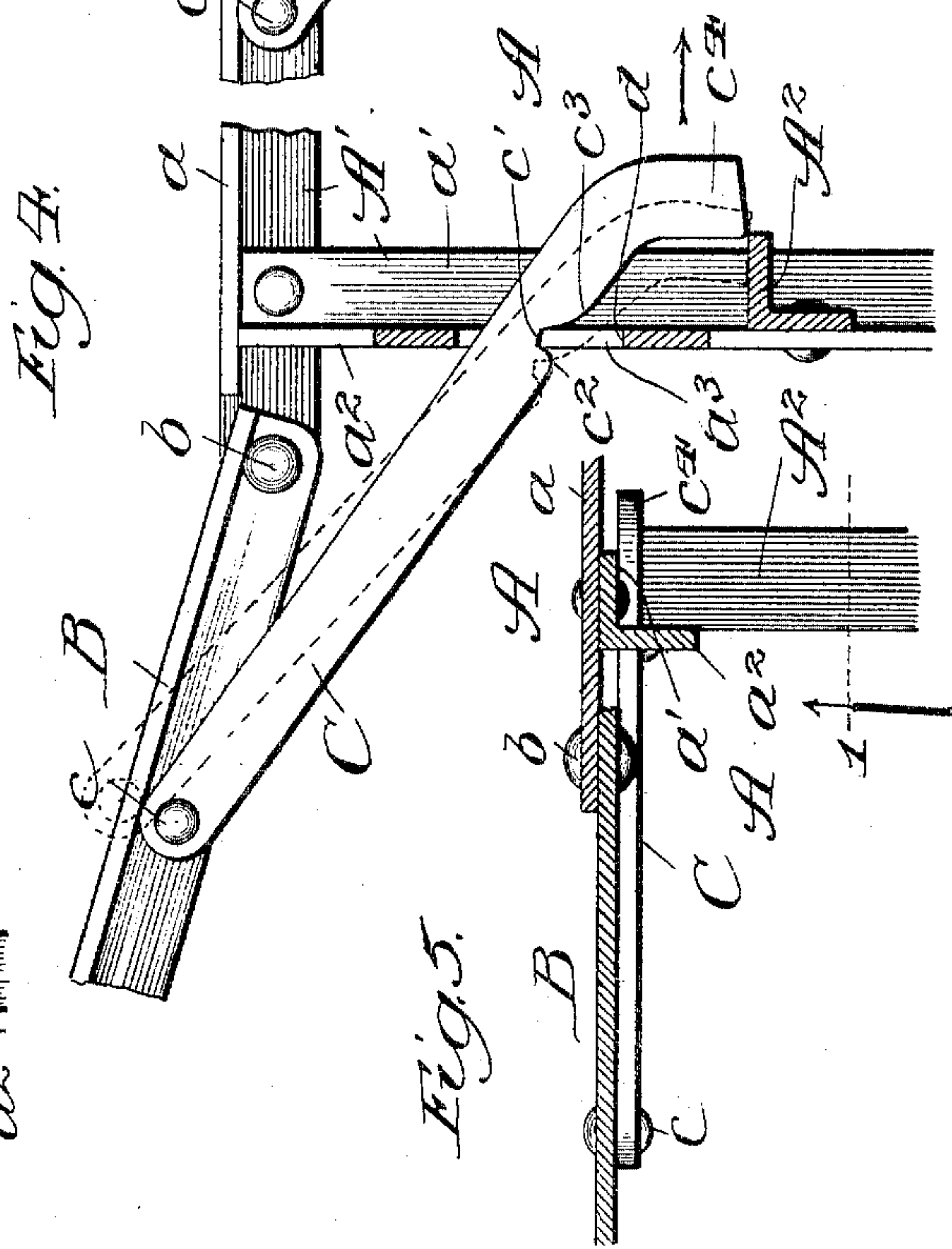
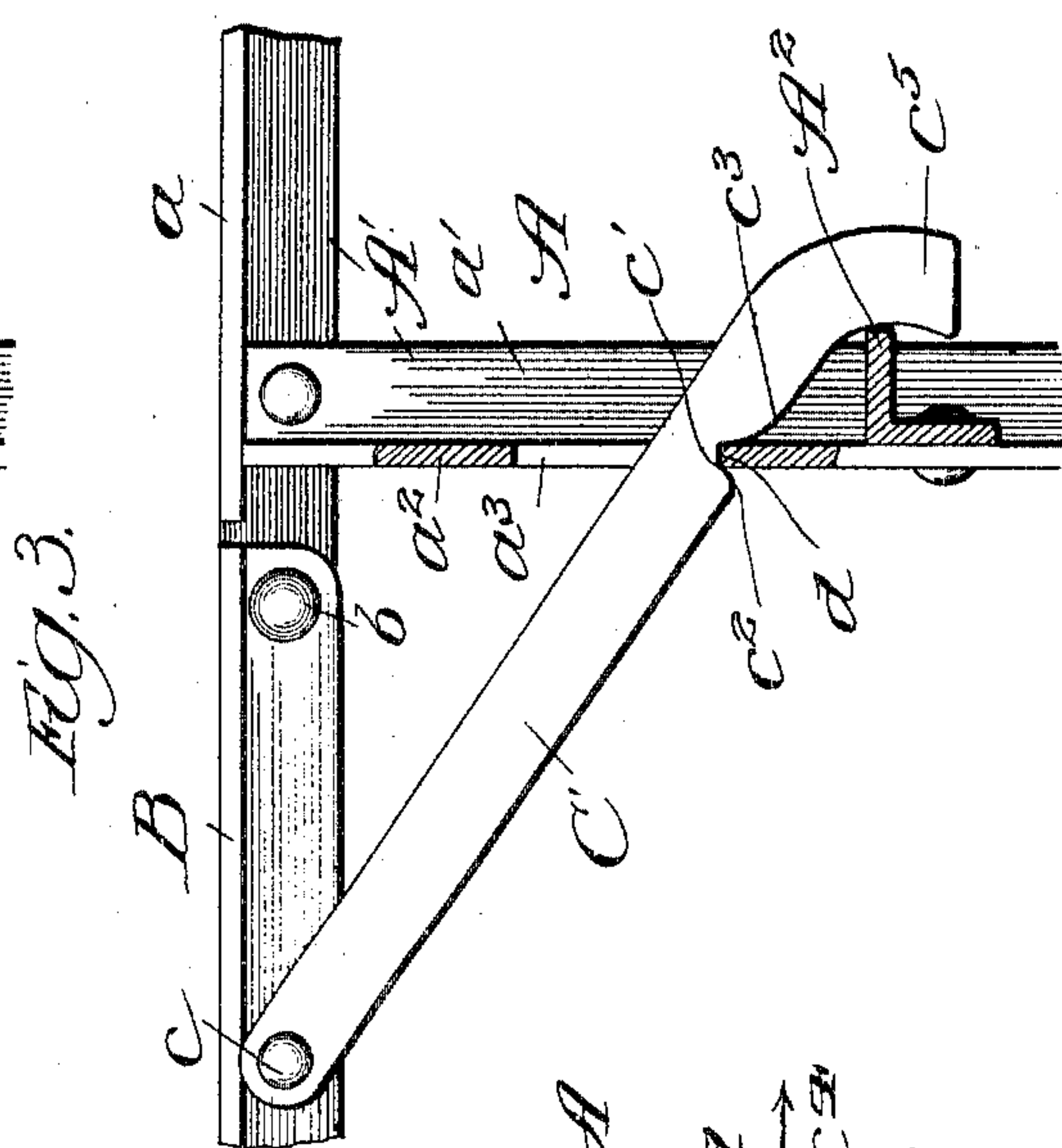
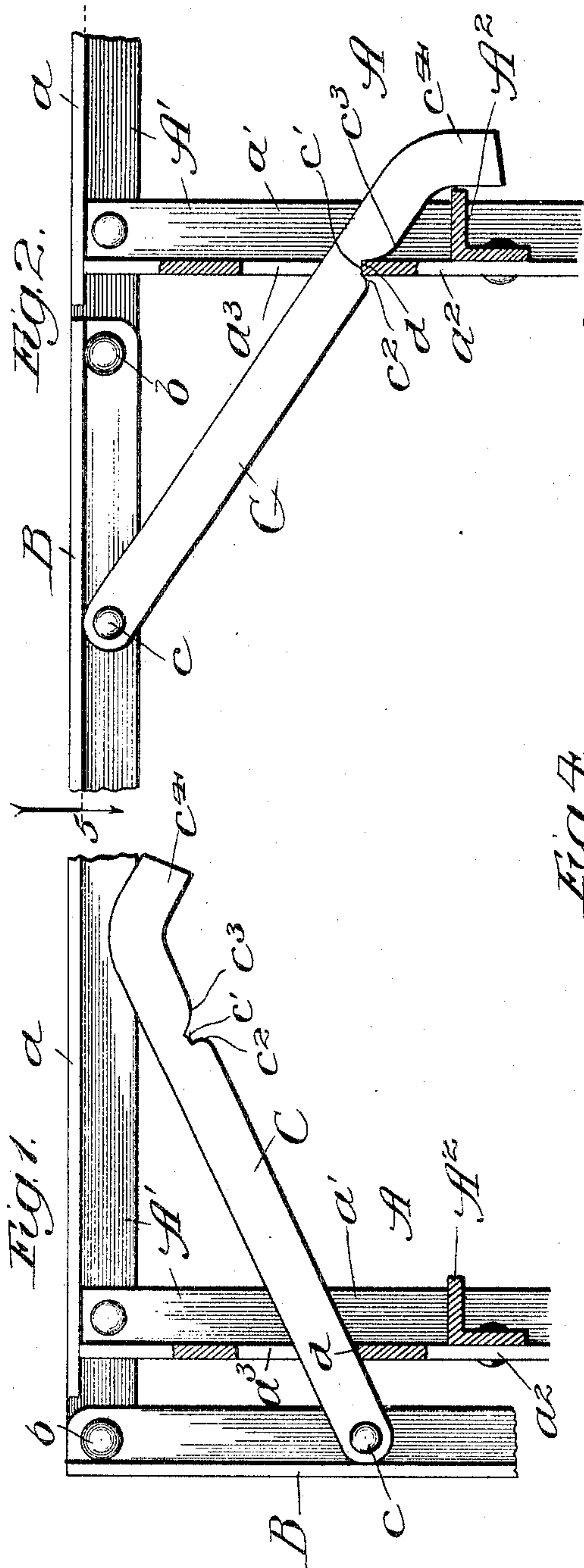


No. 789,425.

PATENTED MAY 9, 1905.

T. HAUSER.
 CONVERTIBLE COUCH, &c.
 APPLICATION FILED OCT. 27, 1902.



Witnesses:
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UNITED STATES PATENT OFFICE.

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CONVERTIBLE COUCH, &c.

SPECIFICATION forming part of Letters Patent No. 789,425, dated May 9, 1905.

Application filed October 27, 1902. Serial No. 128,926.

To all whom it may concern:

Be it known that I, THEODORE HAUSER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Convertible Couches, &c., of which the following is a specification.

My invention relates particularly to locks for the swinging leaves of convertible couches and sofa-beds of the type described in my pending application, Serial No. 84,639, filed December 4, 1901.

My primary object is to provide a lock of simpler and cheaper construction than the one shown in said application and one requiring less delicacy in manipulation to effect an automatic release.

The invention is illustrated in its preferred form in the accompanying drawings, in which—

Figure 1 is a broken sectional view of a convertible lounge, couch, or sofa-bed equipped with my improvement, the section being taken parallel to one end standard of the couch, as indicated at line 1 of Fig. 5; Fig. 2, a similar view showing the swinging leaf in an elevated or horizontal position; Fig. 3, a similar section showing the locking-link employed of slightly-modified form; Fig. 4, a similar view showing the leaf elevated slightly above the horizontal position in the operation of effecting an automatic release; and Fig. 5, a broken horizontal sectional view taken as indicated at line 5 on Fig. 2.

In a couch of the general construction here shown the main parts are a stationary horizontal frame A, supporting the seat, and one or more swinging leaves capable of assuming different positions. In the drawings I have shown one swinging leaf B capable of assuming either a vertical depending position, as shown in Fig. 1, or a horizontal position, as shown in Fig. 2. The stationary frame is of the usual form and comprises end standards A' (one only shown) and connecting angle-bars A². (One only shown.) Each end standard has a horizontal angle-form top member *a* and a front vertical corner member *a'*. The member *a* has an inwardly-turned flange, as

shown. The member *a'* has a rearwardly-turned flange and a front flange *a''* turned toward the opposite end of the couch in the usual manner. The flange *a''* of each member *a'* (one only shown) is provided a short distance above the angle-bar A² with a slot *a'''*. Said angle-bar has a downwardly-turned flange and an inwardly or rearwardly turned flange in the usual way. The leaf B has pivotally connected with each end thereof a locking and releasing link C. (One only shown.) The leaf is supported on pivots *b*, and the links C are joined to the leaf at pivots *c* some distance outside of or below (according to the position of the leaf) the pivots *b*. Toward its free end each link is provided with a notch *c'*, at one side of which is an abrupt locking-shoulder *c''* and at the opposite side of which is an inclined or beveled surface *c'''*. Each link has a downturned free extremity *c''''* a short distance beyond the notch *c'*. As shown, the link comprises a thin flat bar of metal lying in a vertical plane and curved edgewise toward its free extremity to produce the downturned end *c''''*. The slot *a'''* is of suitable width to afford a snug guide for the link C and is of suitable length to permit the necessary movements of the link. The lower end of the slot affords a stationary locking-shoulder *d*, by which the shoulder *c''* is engaged when the leaf is in the position shown in Fig. 2.

When the leaf is in the vertical depending position shown in Fig. 1, the free extremities of the links C lie adjacent to the top bars *a* of the end standards of the frame. When the leaf is in the horizontal position, the downturned extremities of the links lie adjacent to the horizontal flange of the member A². When the leaf is raised above the position shown in Fig. 2, the short outer or concave edge of the downward extensions *c''''* of the links engage the horizontal flange of the member A² and raise the links to the position shown in Fig. 4. A still further upward movement of the leaf causes the lower ends of the links to move outwardly (toward the front of the couch) on the horizontal flange of the member A² to the position indicated by the dotted lines in Fig. 4. If now the leaf be dropped

or quickly lowered, the lower ends of the links acquire motion in the direction indicated by the arrow in Fig. 4, and the acquired momentum is sufficient to carry the locking-shoulders c^2 readily over the shoulders d , so that the leaf will be permitted to fall to a vertical depending position. The release is entirely automatic and is thoroughly reliable.

The gist of the invention lies in providing the frame with a stationary locking-shoulder and adjacent thereto with a link-engaging surface or cam (as the horizontal flange of the member A') and providing the link with a cam or projection engaging the stationary cam and serving to lift the link as the leaf is given its supplemental upward movement above the horizontal position and to cause the locking-shoulder of the link to clear the stationary locking-shoulder when the leaf is lowered quickly. The cam extension of the link may be of any desired shape and direction.

In the modification shown in Fig. 3 the construction is the same as that already described, except that the link C' is of modified form, having its extremity c^3 curved more than in the construction shown in Fig. 2. The importance of having the edge of the link which engages the frame member A^2 curved, so that its lower portion is either vertically beneath or outside the portion which engages the flange of the member A' when the leaf is in the horizontal position, is that the link is raised more by a given movement of the leaf above the horizontal position than it would be otherwise. The significance of this is that the locking-shoulder of the link will more readily pass the stationary locking-shoulder when the leaf is dropped.

Changes in details of construction within the spirit of my invention may be made. Hence no undue limitation should be understood from the foregoing detailed description, which has been given for clearness of understanding only.

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

1. The combination of a frame comprising an end standard equipped with a guide and a stationary locking-shoulder, and a longitudinal angle-iron having a rearwardly-turned

flange located a short distance below said locking-shoulder, and a swinging leaf connected with said frame, of a link connected with said leaf and provided toward its free extremity with a locking-shoulder and beyond said locking-shoulder with a rigidly-carried downturned end lying adjacent to said flange, assuming said leaf to be in the horizontal position, said link being automatically raised when the leaf is raised above the horizontal position and carried clear of said stationary locking-shoulder when the leaf is lowered quickly, as set forth.

2. The combination of a frame having end standards provided with guides and stationary locking-shoulders and a longitudinal frame member beyond the locking-shoulder at the inner side, and a swinging leaf, of links connected with said leaf at its extremities and provided toward their free ends with locking-shoulders engaging said first-named locking-shoulders, assuming the leaf to be in the horizontal position, and provided further with integral extremities lying beyond the frame member at the inner side, said links comprising flat bars notched on their lower edges and having their extremities serving to engage said frame member for the purpose set forth.

3. The combination of a frame provided with a guide and stationary locking-shoulder and in alinement with said locking-shoulder within the frame with a cam, a swinging leaf, and a link connected at its outer end with said leaf and provided toward its free end with a locking-shoulder engaging said first-named locking-shoulder, assuming the leaf to be in the horizontal position, and provided further with an integral extremity lying within the frame, said link comprising a flat bar notched at its lower edge near its free extremity and having its extremity serving as a cam for engaging said first-named cam and raising the link in one movement of the leaf and carrying the locking-shoulder of the link over the stationary locking-shoulder in the return movement, for the purpose set forth.

THEODORE HAUSER.

In presence of—

A. C. KITTLESON,
ALBERT S. BACCI.