

(No Model.)

2 Sheets—Sheet 1.

G. W. BENT.

SUPPORTING DEVICE FOR MOVABLE PARTS OF TABLES.

No. 596,975.

Patented Jan. 11, 1898.

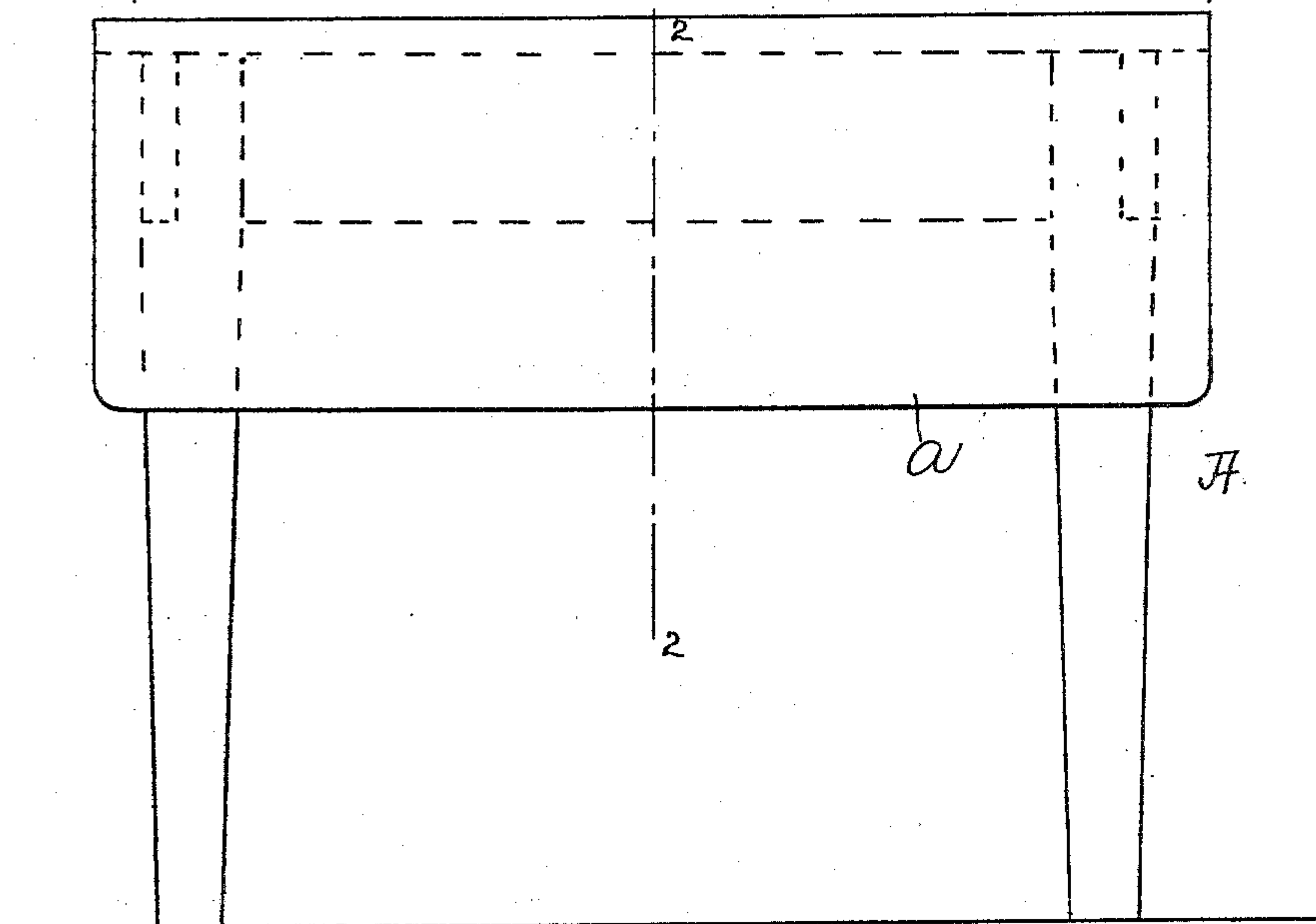


Fig. 1.

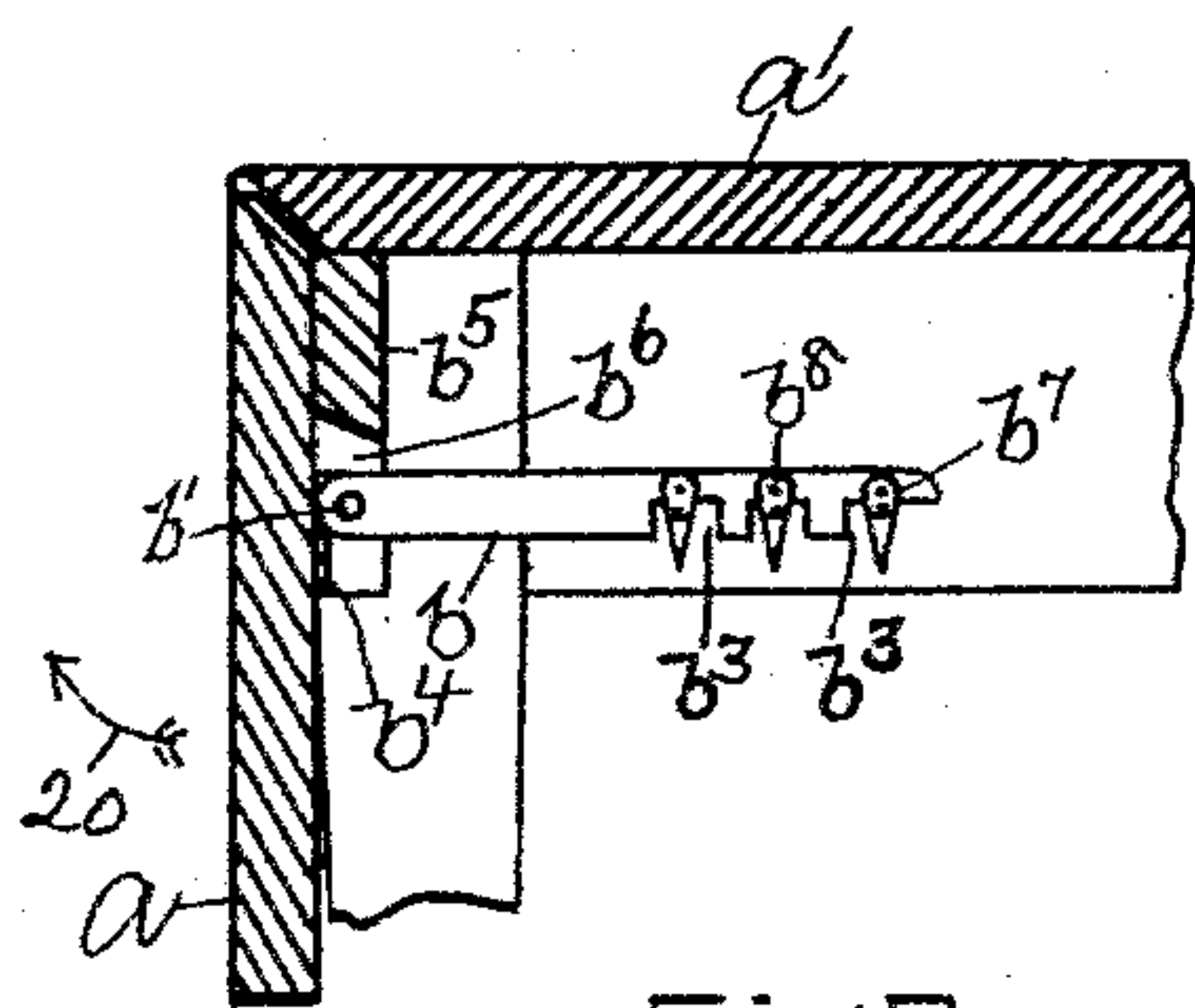


Fig. 2.

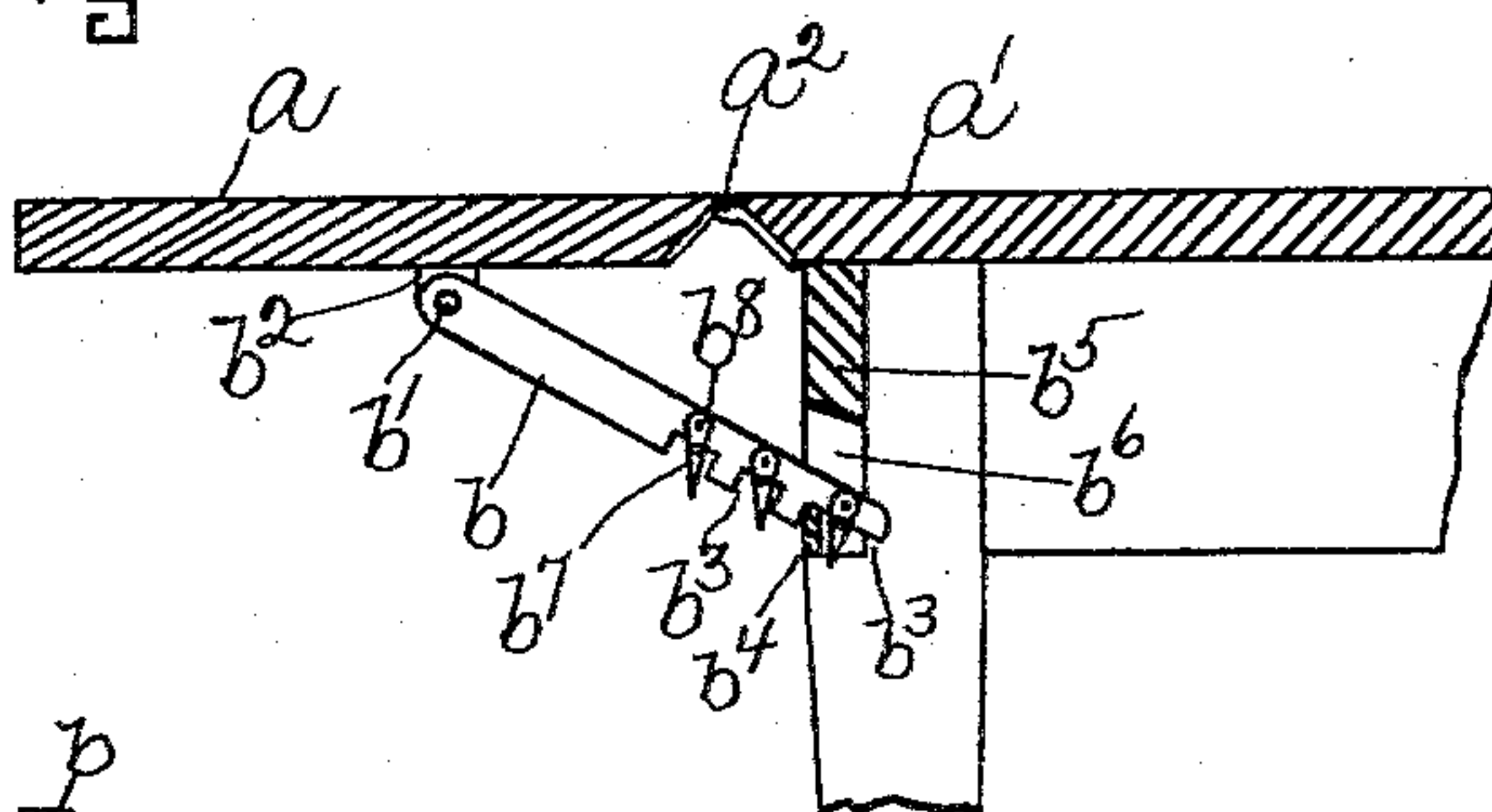


Fig. 3.

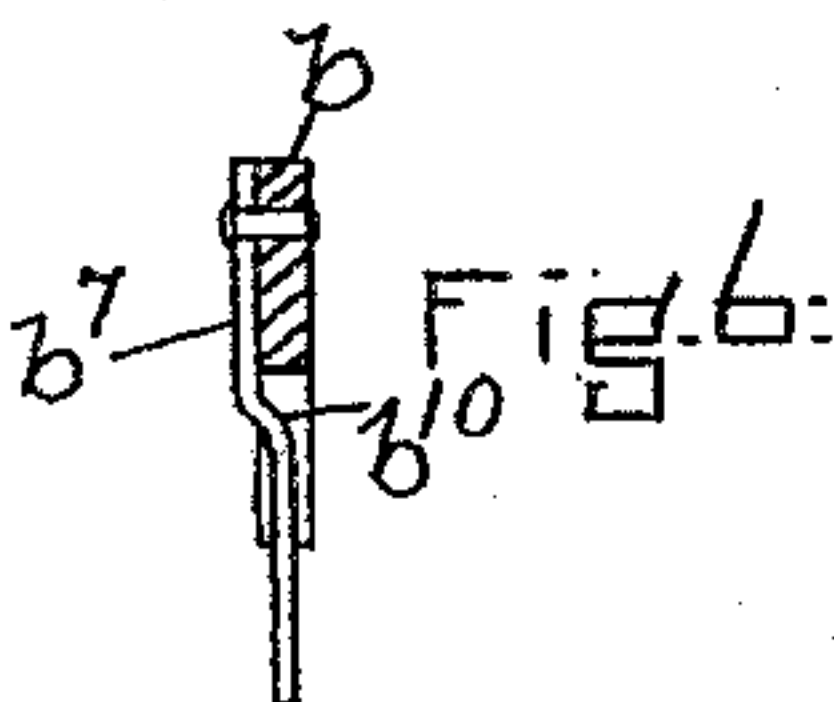


Fig. 6.

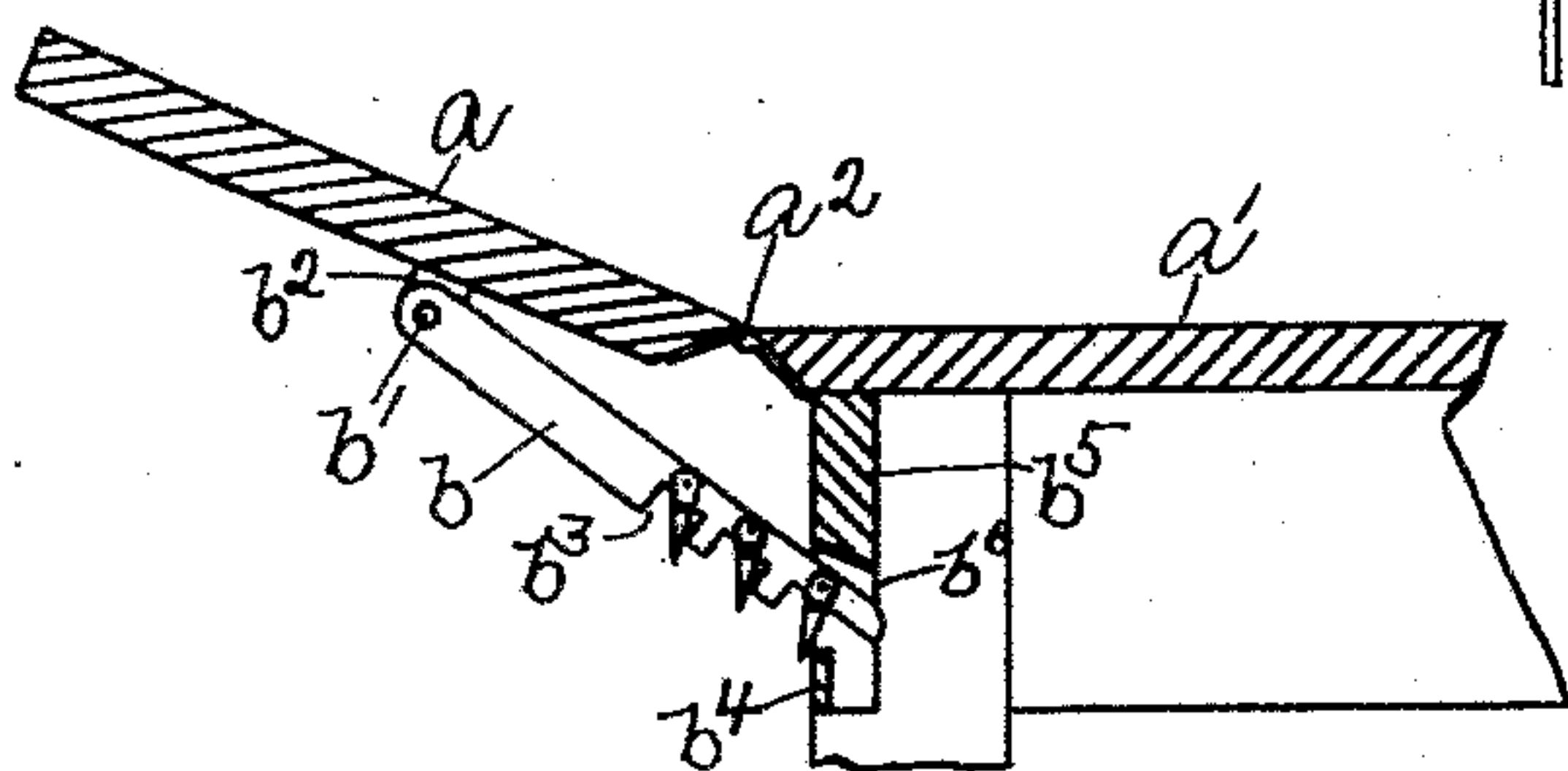


Fig. 4.

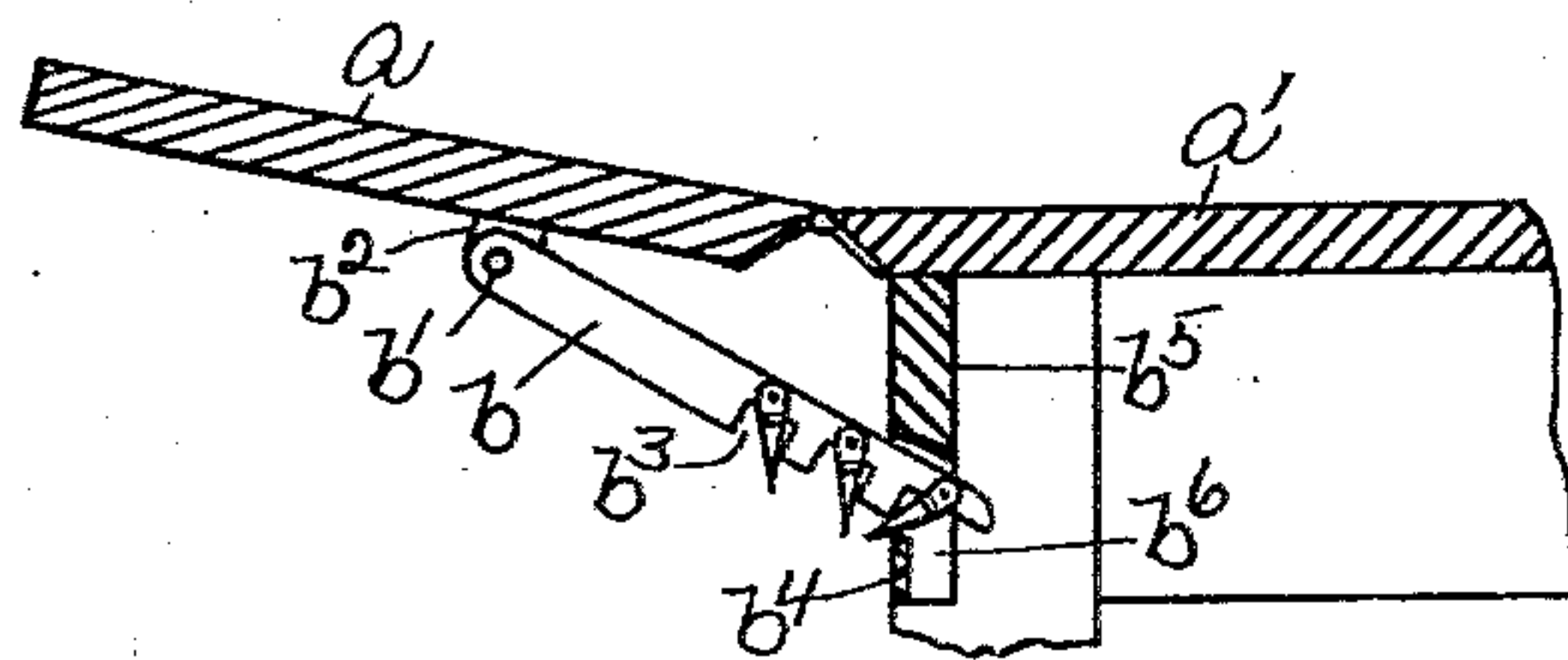


Fig. 5.

WITNESSES.

Matthew M. Blunt.
J. Murphy.

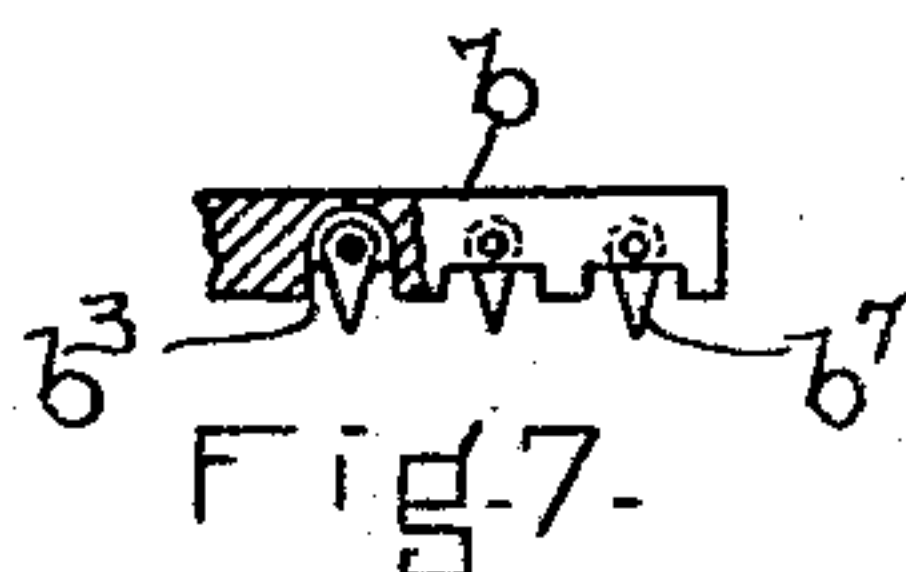


Fig. 7.

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George W. Bent
by Jas. H. Churchill

ATTY.

(No Model.)

2 Sheets—Sheet 2.

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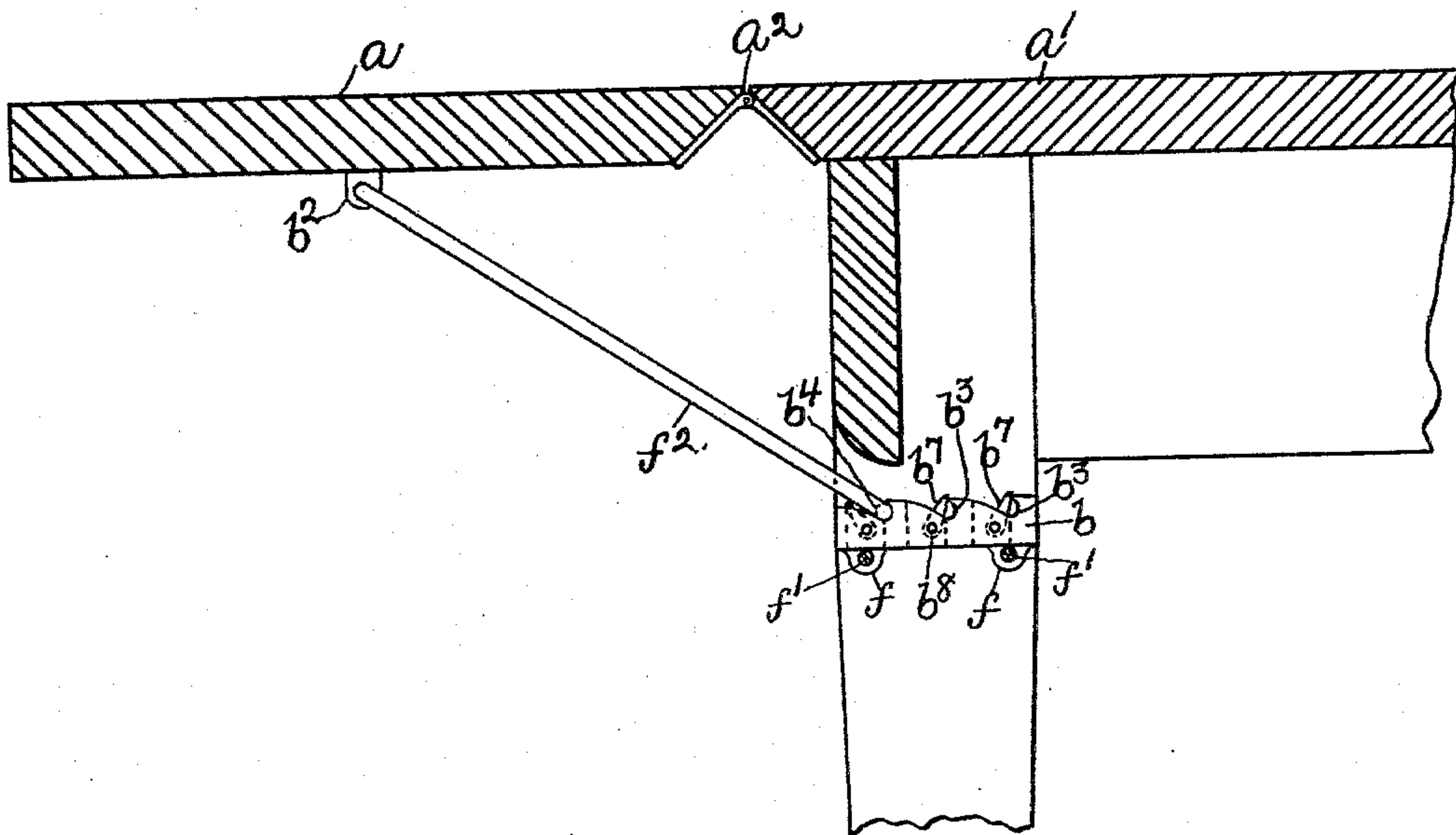


Fig. 2.

WITNESSES.

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ATT'Y.

UNITED STATES PATENT OFFICE.

GEORGE W. BENT, OF HYDE PARK, MASSACHUSETTS.

SUPPORTING DEVICE FOR MOVABLE PARTS OF TABLES.

SPECIFICATION forming part of Letters Patent No. 596,975, dated January 11, 1898.

Application filed October 6, 1896. Serial No. 607,999. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. BENT, residing in Hyde Park, in the county of Norfolk and State of Massachusetts, have invented an Improvement in Supporting or Holding Devices, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention relates to a supporting or holding mechanism or device capable of being used with a number of articles having one portion or member movable with relation to another portion or stationary member—such, for instance, as a table having leaves hinged thereto, couches having hinged side pieces, chairs having hinged backs, and other similar articles of furniture.

My present invention has for its object to provide a simple, cheap, and efficient supporting or holding mechanism for the movable member referred to which is capable of being automatically released from its locked position by movement of the movable member, as will be described.

Figure 1 represents in elevation a table provided with a leaf hinged thereto, which leaf is adapted to be supported in its elevated position by a supporting or holding device or mechanism embodying this invention. Fig. 2 is a sectional detail on the line 2 2, Fig. 1, showing the leaf in its lowered position and the supporting mechanism or device in its inoperative position. Fig. 3 is a sectional view similar to Fig. 2 with the leaf elevated and locked in its elevated position by its supporting mechanism. Fig. 4 is a sectional detail showing the leaf as raised from the position shown in Fig. 3 preparatory to lowering the same. Fig. 5 is a sectional detail to illustrate the leaf on its closing movement; Fig. 6, a sectional detail of the holding device shown in Figs. 1 to 5; Fig. 7, a detail of a modified form of holding device, and Fig. 8 a modification to be referred to.

In the present instance I have chosen to illustrate my invention as applied to a table A, which may be of any usual or suitable construction and which is provided at one or both of its sides with a folding leaf *a*, which, as

herein shown, is secured to the top *a'* of the table by suitable hinges *a''*.

The folding leaf *a* of the table constitutes in the present instance the movable member of the article to which my improved supporting or holding device or mechanism is applied, and the top *a'* of the table and the parts firmly attached to it constitute the stationary member of the article herein shown.

In accordance with this invention the movable member or leaf *a*, as herein shown, has pivotally secured to it a notched surface, shown as a bar *b*, preferably of metal, and herein represented as pivoted, as at *b'*, to a lug or ear *b''* on the under side of the movable member or leaf *a*. The bar *b*, which may be of metal, wood, or other suitable material, is provided on one side or edge, herein shown as the under side, with one or more notches *b'''*, of suitable shape and size to engage a locking device, represented in the present instance as a metal plate or bar *b''''*, secured to what is termed the "roundabout" *b'''''* for the table, the roundabout *b'''''* being provided in the present instance with a slot *b''''''*, through which the holding bar or surface *b* is adapted to be moved. The locking device *b''''*, shown in the present instance as a substantially flat plate or bar, may be a metal rod or pin, or it may be of any other suitable material and construction capable of entering the notches *b'''* to engage the bar *b*, and thereby lock the holding surface or bar *b* in what may be termed its "operative" position—namely, with the movable member *a* elevated into position for use. The holding-bar *b* in accordance with this invention is provided with a dog or arm *b''''''*, pivoted, as at *b''''''''*, to the bar *b* in line with a notch *b'''''''* in the said bar, there being a dog for each notch, and the said dog is pivotally attached to the bar *b* substantially near the longitudinal center of the notch *b'''''''*, with which it coöperates, and the said dog or arm is made of a length greater than the depth of the notch *b'''''''*, so that the said dog may project below the lower edge of the notch for a purpose as will be described.

The dog *b''''''* constitutes an automatically-operated disengaging device for the supporting bar or surface *b*, and the said disengag-

ing device is automatically positioned, so as to prevent the engagement of a notch b^3 with its locking device b^4 by a movement of the bar b in the same direction it is moved when engaged with the said holding device to support the movable member or leaf a in its operative position.

In Fig. 2 I have shown the leaf a as in its folded or inoperative position, and when it is desired to use the leaf it is lifted in the ordinary manner and brought into a substantially horizontal position, (shown in Fig. 3,) and as the leaf a is moved outward and upward in a direction indicated by the arrow 20, Fig. 2, the bar b will be drawn through the slot b^6 in the roundabout and the dogs b^7 will be turned so as to uncover substantially one-half of the notches b^3 —namely, the halves nearest the pivot b^1 —and cover the other half of the said notches, so that on the outward movement of the bar or surface b the notched portion of the said bar will be lifted from the holding device or plate b^4 until the leaf a has been moved into the proper or desired position, and when brought into the desired position the leaf a may be moved slightly in the direction opposite to the arrow 20, which will cause the engagement of the locking-plate b^4 with a notch b^3 in the bar or surface b . In the present instance the holding-plate is represented as engaged with the last or endmost notch b^3 in the bar or surface b . When now it is desired to lower the leaf a , the operator is not obliged with my improved supporting device to reach under the leaf a or to handle in any manner the supporting bar or surface and the parts carried by it, but, on the other hand, takes hold of the leaf a and turns it still farther in the direction indicated by the arrow 20 until the dog b^7 , cooperating with the last notch in the bar b , has passed beyond the outer edge of the locking plate or device b^4 and into substantially the position represented in Fig. 4. When in this position, the supporting bar or surface b is in condition to be moved back into the position represented in Fig. 2, and this may be accomplished by lowering the leaf or movable member a , for by an inspection of Fig. 5 it will be seen that as the leaf a is lowered the bar or surface b is moved inward through the slot b^6 , and the dog b^7 , cooperating with the endmost notch b^3 , engages the locking device or plate b^4 and at the same time covers that wall of the notch b^3 which would otherwise be brought into engagement with the said locking device, so that the bar b may be moved over the locking device or plate b^4 without the engagement of the said plate or device with any of the notches in the said bar.

In order to properly position the dogs b^7 , so as to properly cover the end walls of the notches b^3 , which would otherwise be engaged with the holding device or plate b^4 , the said dogs are limited in their movement, which may be accomplished, as shown in Figs. 1 to

6, inclusive, by making the lower portion of the dogs with an offset b^{10} , (shown in Fig. 6,) so that when the dog is turned on its pivot the offset will engage the wall of the notch which it is desired to cover, or the dogs may be pivoted in a slot in the bar b , so as to be located between the walls of the notch, as shown in Fig. 7. It will thus be seen that the pivoted dogs b^7 are made longer than the depth of the notches and practically form cams which cooperate with the locking device for the supporting bar or surface to cause the said bar or surface to be lifted as the notch with which the cam cooperates passes over the locking device.

I have herein shown my invention as applied to a table having a leaf which is hinged thereto; but I do not desire to limit my invention to the use of the supporting device herein specified, as it may be used with other articles—such as couch-beds, chairs having movable backs, and like articles—and, furthermore, I do not desire to limit my invention to the use of a supporting surface or bar when applied to a hinged movable member, as it can be used when the movable member slides or moves in a substantially straight path. Furthermore, I do not desire to limit my invention to the particular number of notches herein shown in the bar b , as one or more may be used.

I have herein described the notched bar provided with the dog or cam cooperating with the notch as movable with relation to the locking device; but I do not desire to limit myself in this respect, as the locking device might be made movable with relation to the notch-bar, as represented in Fig. 8. I have also shown the bar b as secured to the leaf a , so that the notches are on the under side of the said bar; but I do not desire to limit my invention in this respect, as the bar in some instances may be placed with the notches up, as shown in Fig. 8.

Referring to Fig. 8, the notched bar b is represented as provided with ears f , through which are inserted screws f' for fastening the notched bar to the leg of the table, with its notches b^3 in its upper or top surface and the cams or dogs b^7 pivoted to the bar, so as to uncover the notches when moved in one direction and to cover the same and prevent the holding device b^4 from entering the same when moved in the opposite direction. The holding device b^4 , as shown in Fig. 8, consists of a finger or bent end of a rod f^2 , which is pivoted to the lug b^2 on the leaf a .

I claim—

1. The combination with a movable member as a , of a supporting or holding device consisting of a bar or surface provided with a notch, a locking device cooperating with said notch and adapted to engage therewith to hold the movable member in its adjusted position, and a cam or dog attached to the said bar to move therewith and cooperating

with the notch in the said bar or surface and
with the locking device to engage the latter
and cover the notch against engagement of
the same with the locking device by further
5 movement of the movable member in the
same direction it is moved when the notch in
the supporting surface or bar is engaged with
the said locking device, substantially as de-
scribed.

10 2. The combination with a bar or surface
provided with a notch, of a cam or dog car-
ried by said bar or surface and movable with

relation to said notch to cover one wall of the
said notch and prevent the engagement of
the said wall with a coöperating locking de- 15
vice, substantially as described.

In testimony whereof I have signed my
name to this specification in the presence of
two subscribing witnesses.

GEORGE W. BENT.

Witnesses:

JAS. H. CHURCHILL,
J. MURPHY.