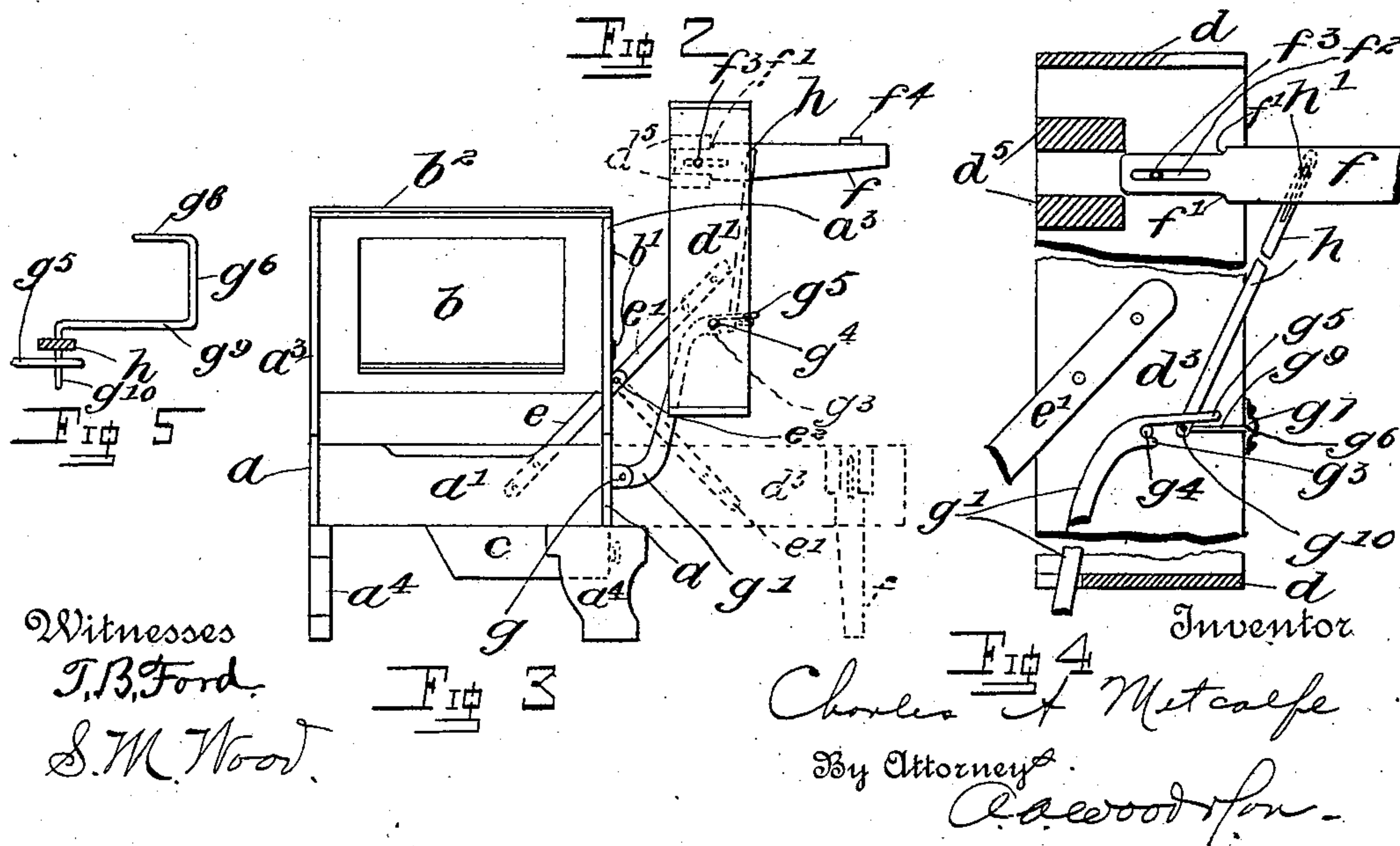
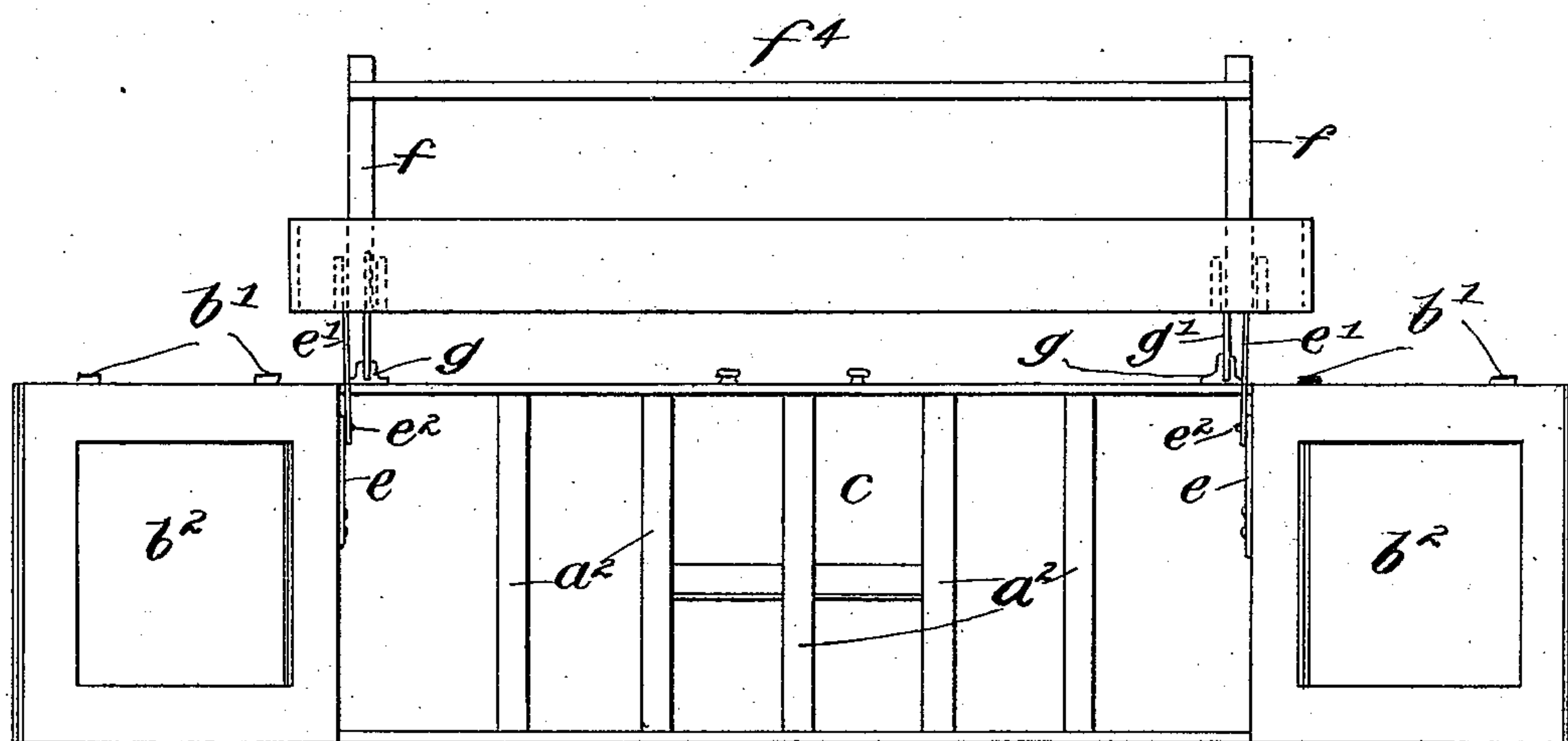
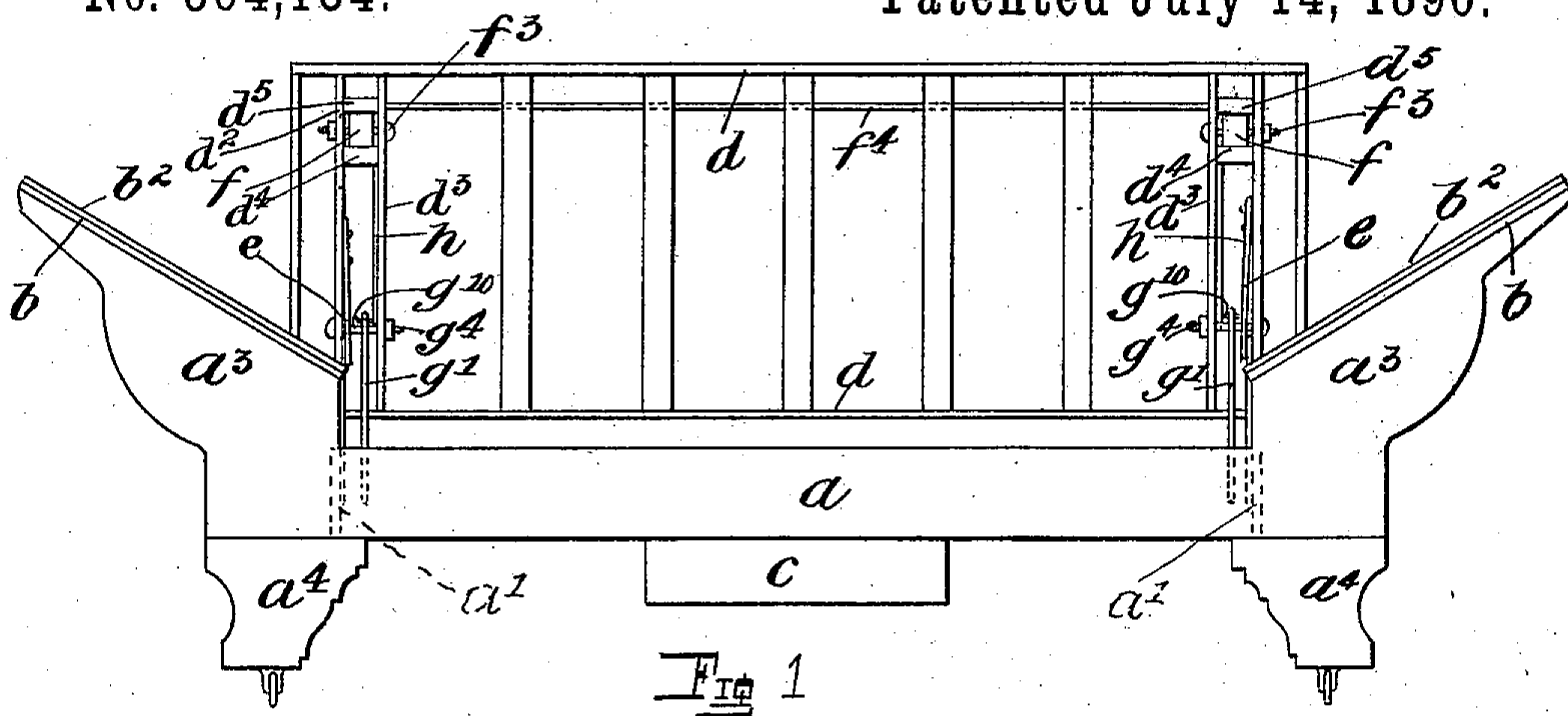


C. A. METCALFE.
FOLDING SOFA.

Patented July 14, 1896.



UNITED STATES PATENT OFFICE.

CHARLES A. METCALFE, OF MARIETTA, GEORGIA.

FOLDING SOFA.

SPECIFICATION forming part of Letters Patent No. 564,154, dated July 14, 1896.

Application filed January 24, 1896. Serial No. 576,719. (No model.)

To all whom it may concern:

Be it known that I, CHARLES A. METCALFE, a citizen of the United States of America, and a resident of Marietta, in the county of Cobb and State of Georgia, have invented certain new and useful Improvements in Folding Sofas; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

In the accompanying drawings merely the framework of this device is shown, inasmuch as therein lies the entire novelty, the parts not shown simply consisting of the upholstering, which may be done in any way and on any part of the framework desired.

Figure 1 is a front elevation of the frame with back elevated. Fig. 2 is a plan thereof with parts in the same relative position. Fig. 3 is an end elevation of the device, the lowered position of the back being shown in broken lines. Fig. 4 is a section taken between the two parallel end pieces of the back, and Fig. 5 is a detail view of the pawl-releasing elements.

In the figures like reference-marks are employed in the designation of corresponding elements of construction.

The main frame is composed of side pieces a , suitably formed at the ends to support inclined heads and kept in their proper relative positions by means of end pieces a' and spring-supporting slats a^2 , arranged intermediately thereof. Other cross-bars of suitable construction may, if desired, be placed between the enlarged portion a^3 of the side pieces a , whereby the structure may be further strengthened and a suitable base provided for the particular kind of upholstery it is desired to apply. Legs a^4 are secured to the lower edges of the side pieces a , preferably under the head section a^3 thereof, and may be of any desired form and secured in any manner, either independently or braced to each other. Casters should be employed.

A transverse head-piece b is secured across the upper inclined edges of the side pieces, and secured thereto by the hinges b' on its

back edge is a correlative folding section b^2 , substantially coextensive therewith and fitting closely over the top thereof when folded, as shown in the drawings. When unfolded or extended, this part b^2 forms a head for the then depressed back of the device. The upper side of this leaf b^2 carries the upholstering for the head of the lounge when in normal use, and the faces of these leaves when open serve to receive pillows or cushions, the upholstery of the part b^2 at such times being on the under side thereof. The upholstery of the seat of the sofa should be about as high as would reach the lower line of the part b , as seen in Figs. 1 and 3, while the upholstery on the back should be of a corresponding height, both for the purpose of proper upholstery when used as a sofa and for providing a uniform level when the back is lowered.

On the under side of the lounge is a drawer c for the purpose of depositing bedding, &c.

The back is composed of side bars d and two or three parallel end bars d' , d^2 , and d^3 , slats d^4 being intermediately placed for the purpose of receiving the upholstery-springs. The pieces d' act as a backing for the upholstery and serve to support the leaf b^2 when same is opened out for use as a bed. The back is hinged to the seat portion by means of the straps e and e' , bolted, respectively, to the end pieces a' of the seat-frame and to the pieces d^2 of the back-frame, and joined at their inner ends to each other by a rivet e^2 . Normally the longitudinal axes of these straps are parallel, but when the back is depressed the strap e' assumes the position shown by broken lines in Fig. 3.

Two blocks d^5 are placed between the pieces d^2 and d^3 at each end of the frame for the back and near the top thereof.

f is a leg, which is provided with a reduced portion f' and a slot f^2 , through which passes the pivoting-bolt f^3 , which serves to pivot these legs between the end pieces d^2 and d^3 . Opposite the openings between the blocks d^5 these legs are connected to each other by means of a cross-bar f^4 , by means of which they are manipulated. When these legs are in the position shown in Fig. 4, they will readily swing downwardly, so as to lie flush on the back side of the sofa-back, but when they are in the position shown in Fig. 3 the blocks

d^5 hold them rigidly projected, so that they remain upright when the back is turned down and said legs contact with the floor and support the back.

5 Pivoted to the back-bar a on a block g , secured thereto, is a curved arm g' , which is provided on its upper end with a lip g^3 , adapted to engage the bolt g^4 , passing through the end pieces d^2 and d^3 , and also with a projecting fin-
10 ger g^5 .

As shown in Figs. 4 and 5, a bent wire g^6 is pivoted on the end teeth d^3 and having a strap g^7 screwed thereover to pivot it, an arm g^8 preventing its accidental displacement and a
15 crank g^9 , provided with a wrist g^{10} , being on the other end thereof. Across this wrist rests the finger g^5 . A pitman h is connected to this wrist g^{10} , and being slotted at the opposite end, as best shown in Figs. 3 and 4, is there con-
20 nected by a bolt h' , passing through said leg and said slot. This slot in the pitman h allows the leg to swing downwardly when in the position shown in Fig. 4, while, if the leg be, when in that position, turned upwardly, the
25 correlative arms g' will be raised, disengaging the lips g^2 and the bolts wherewith they engage when the back is raised, which said disengagement allows the back to be lowered.

Owing to the fact that the pivotal point of
30 the seat and back is above the upholstery of each or just at the corner thereof, it is obvious that the bracing of the back to hold it up is stronger than were the pivotal point and the supporting-pin engaging the arm closer to-
35 gether, and also that the back may be folded down upon the seat in transporting same, either shipping or moving, and the goods forming part of the cushions be thoroughly protected.

40 Having thus described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. A sofa-frame consisting of a seat-frame and a back-frame hinged thereto upon a pivot
45 located above the seat and back when the latter is depressed, legs pivotally secured to the said back-frame on the back side near the

upper edge, an arm pivotally secured to the back edge of the seat, passing through the lower edge of the back-frame and curved on
50 a radius from the aforesaid pivot, a lug on said arm, a pin so situated on the back-frame as to engage said lug when the back-frame is elevated, and a pitman connected at one end to said arm and at the other end to the cor-
55 relative leg, substantially as and for the purpose specified.

2. A sofa-frame consisting of a seat-frame and a back-frame hinged thereto, legs pivotally secured to said back-frame on the back
60 side near the upper edge, an arm pivotally secured to the seat-frame on its back edge, passing through the lower edge of the back-frame and curved on a radius from the pivot of the hinge, a lug on said arm, a pin so situated on
65 the back-frame as to engage said lug when the back-frame is elevated, and a slotted pitman connected at one end to said arm and at the other end to the correlative leg by means of a bolt passing through said leg and through
70 the slot in said pitman, substantially as and for the purpose specified.

3. A sofa-frame consisting of a seat-frame and a back-frame hinged thereto, legs pivotally secured to the said back-frame on the
75 back side near the upper edge, an arm pivotally secured to the back edge of the seat-frame, passing through the lower edge of the back-frame and curved on a radius from the hinge, a lug on said arm, a pin adapted to engage
80 the said lug when the back-frame is elevated, a crank mounted on the back-frame near said pin with its wrist lying under said arm and a pitman connected to said wrist at one end and to the correlative pivoted leg by its other
85 end, whereby the upward movement of said leg will disengage the said lug and pin, for the purpose specified.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

CHAS. A. METCALFE.

Witnesses:

ALBERT P. WOOD,

H. L. KEITH.