

No. 617,754.

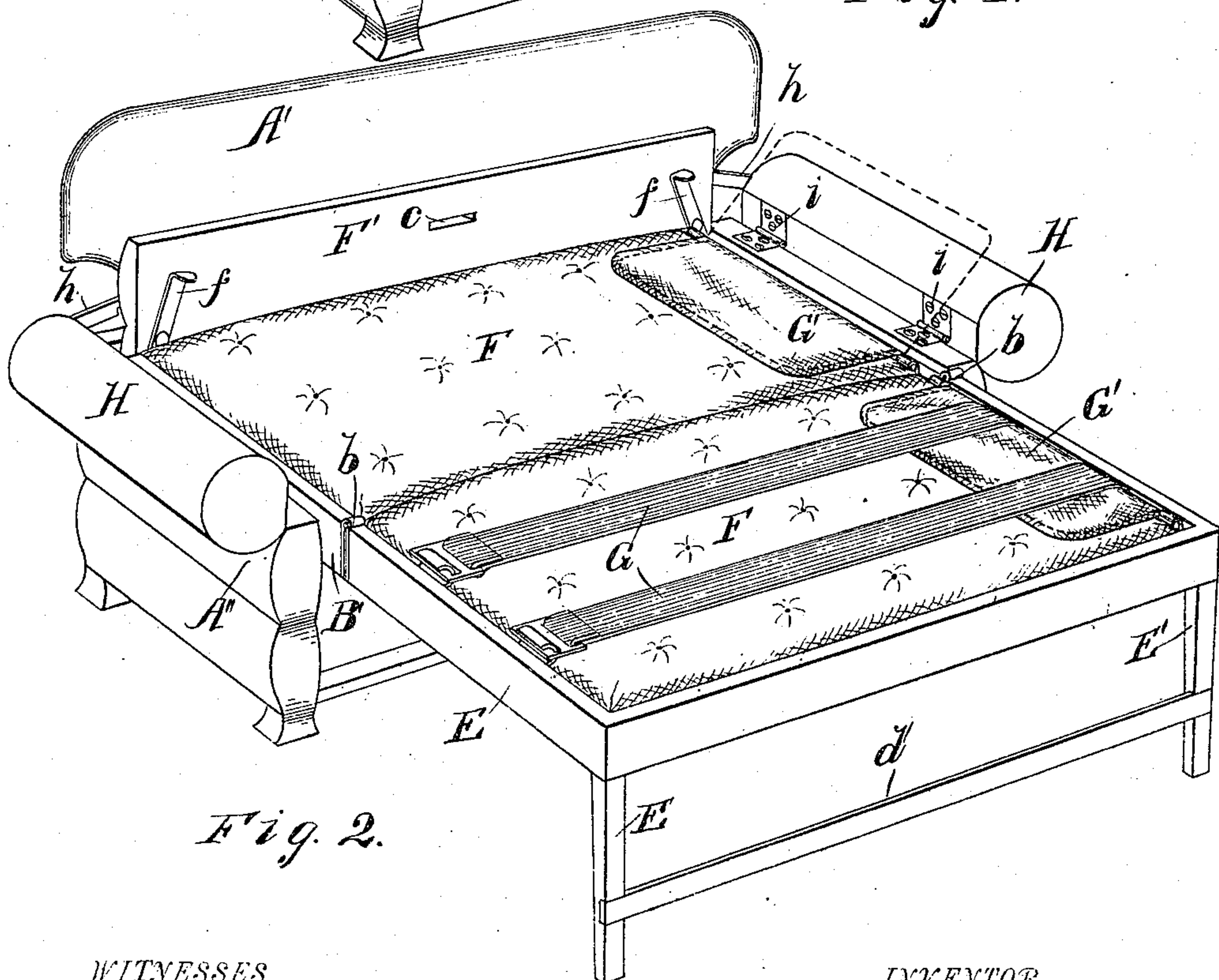
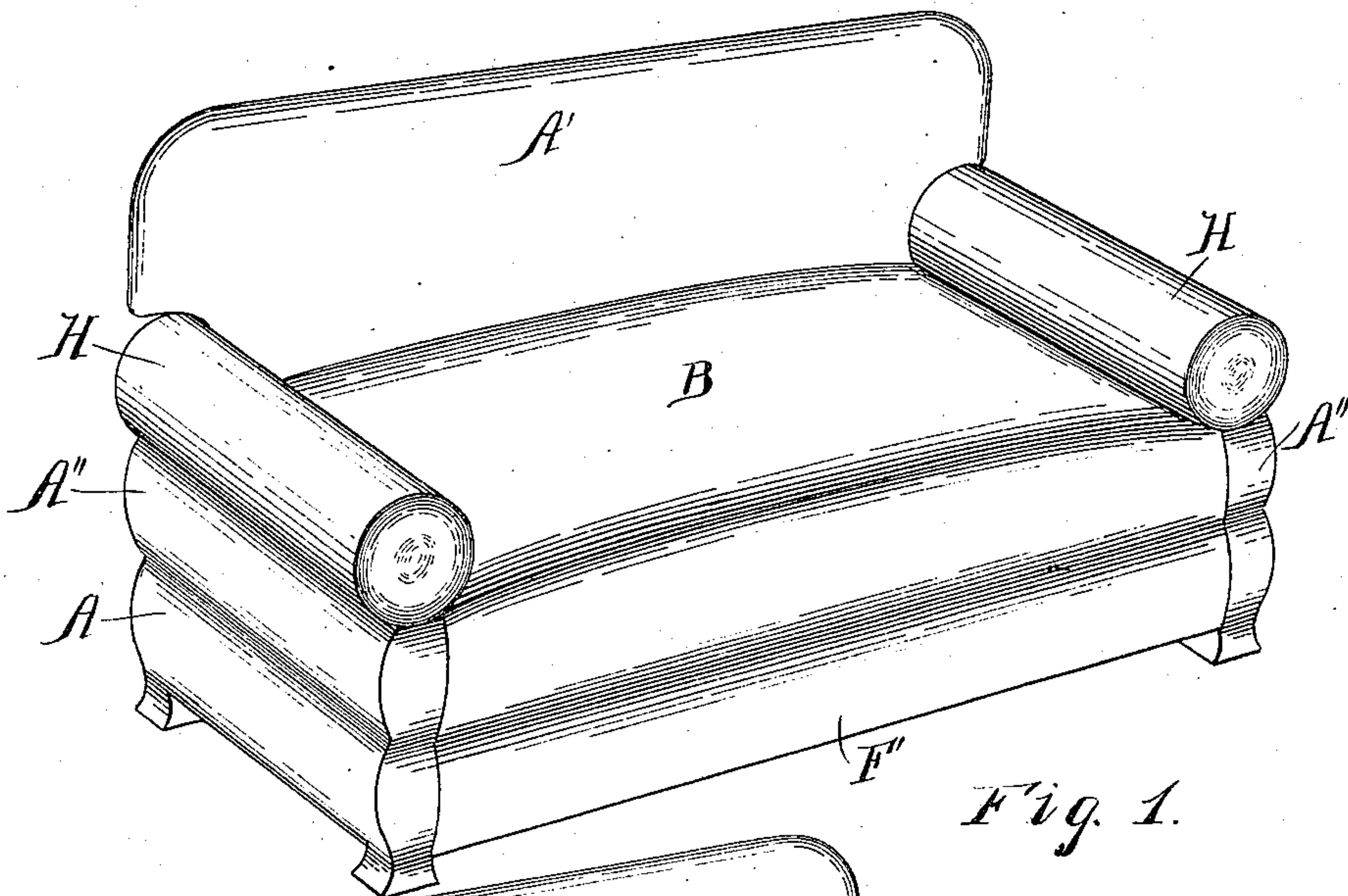
Patented Jan. 17, 1899.

A. MARTENSON.  
BED SOFA.

(Application filed May 13, 1896.)

(No Model.)

2 Sheets—Sheet 1.



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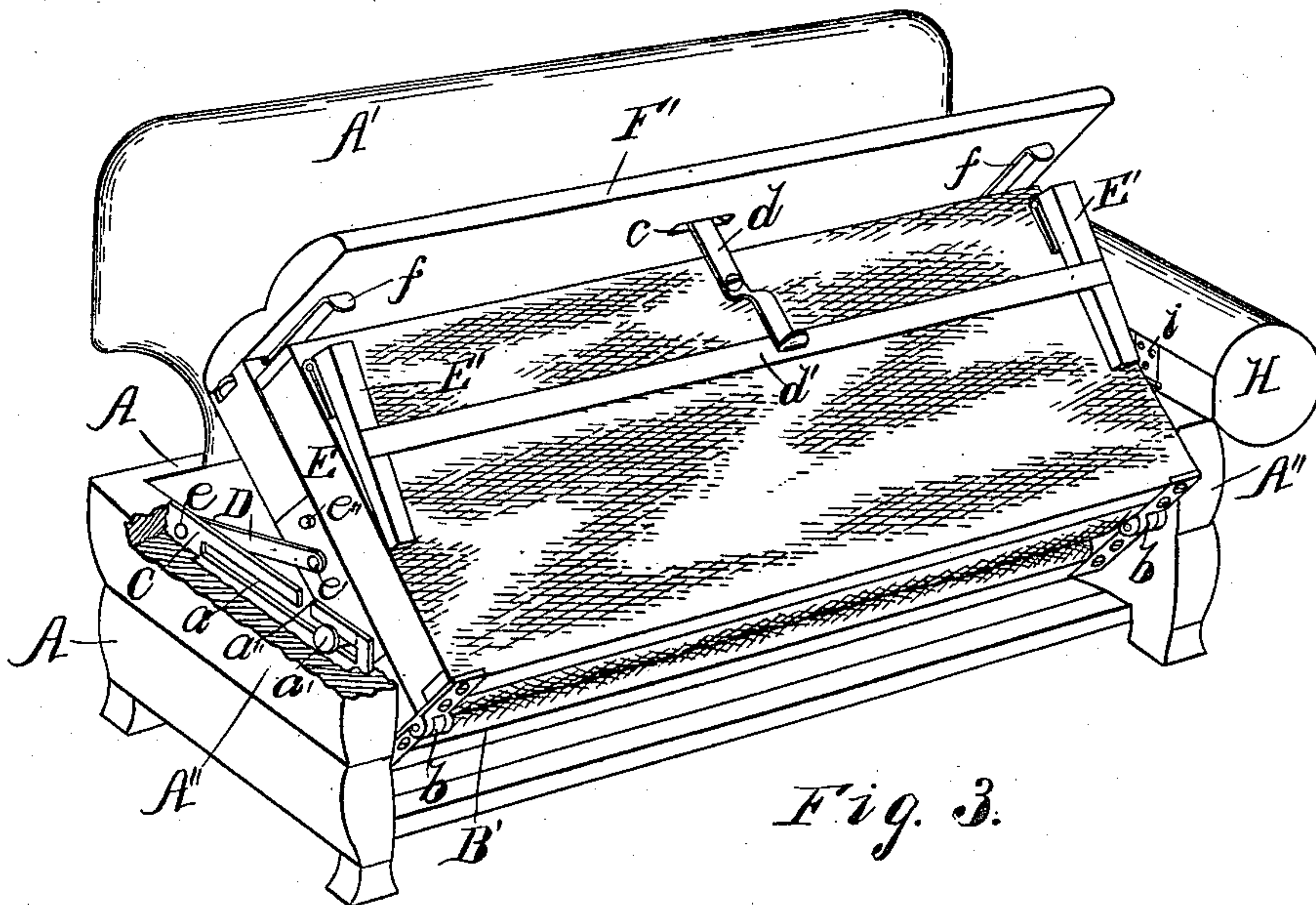


Fig. 3.

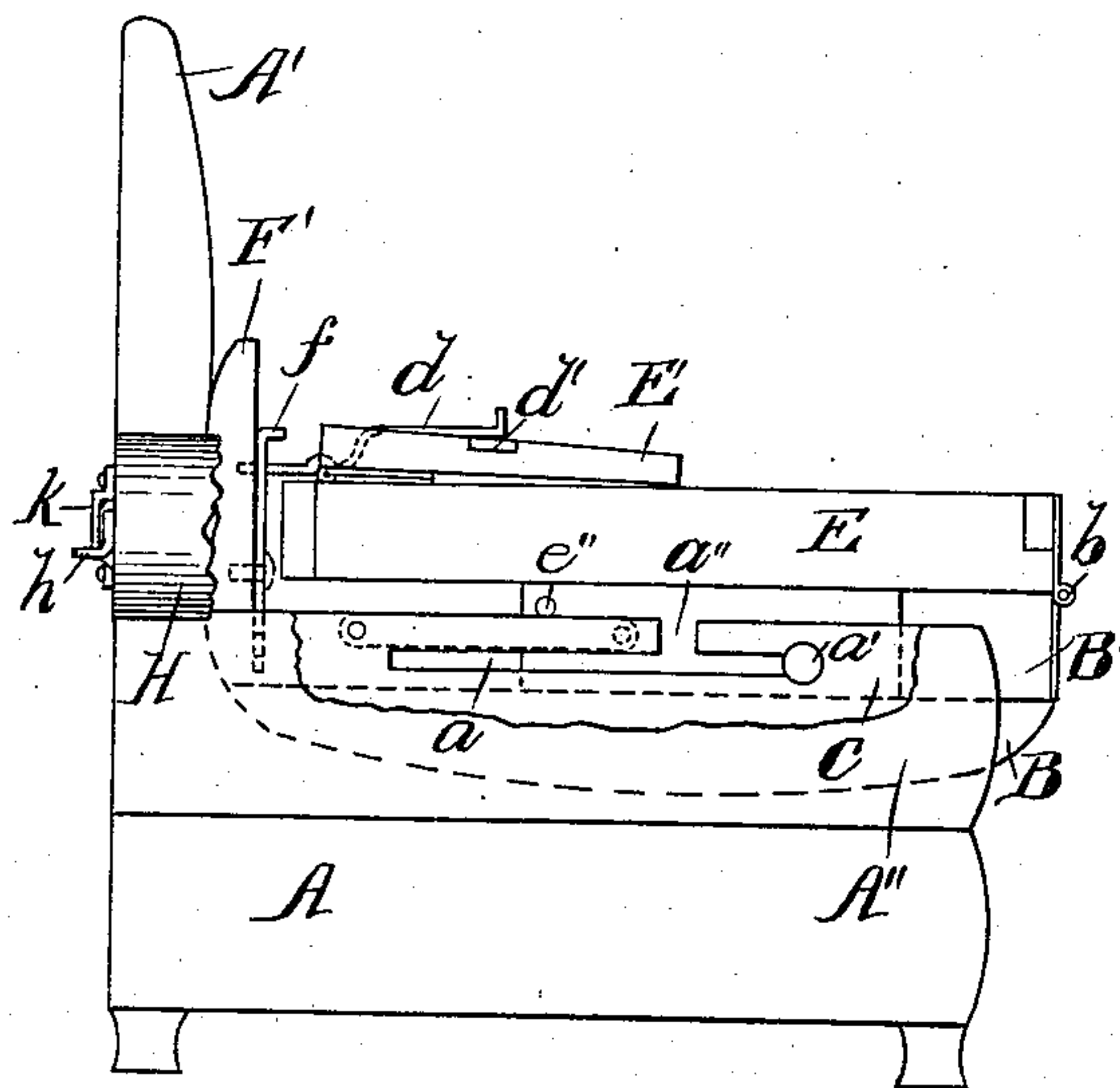


Fig. 4.

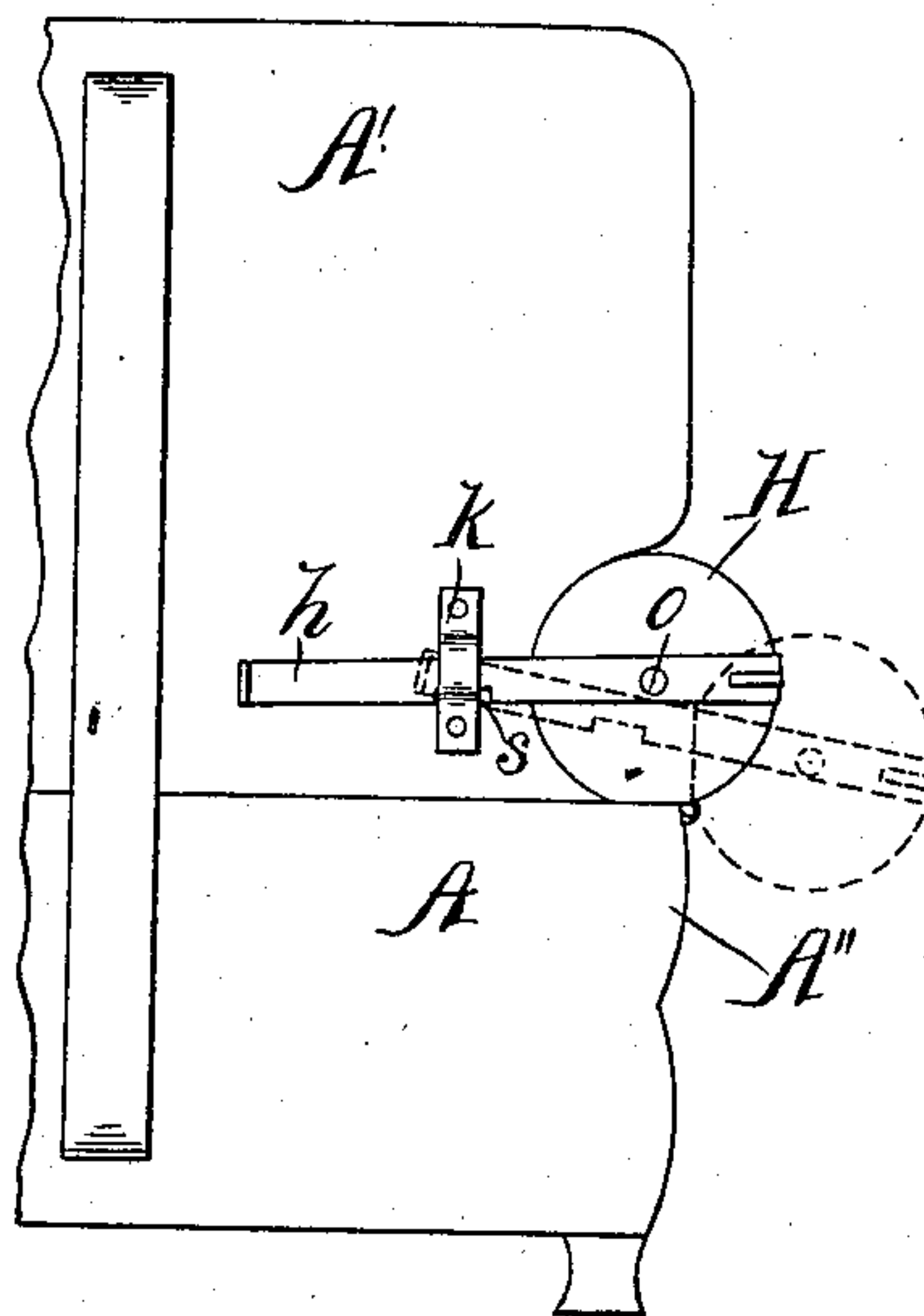


Fig. 5.

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# UNITED STATES PATENT OFFICE.

ANDREW MARTENSON, OF CLEVELAND, OHIO.

## BED-SOFA.

SPECIFICATION forming part of Letters Patent No. 617,754, dated January 17, 1899.

Application filed May 13, 1896. Serial No. 591,335. (No model.)

*To all whom it may concern:*

Be it known that I, ANDREW MARTENSON, a citizen of Sweden, residing at Cleveland, in the county of Cuyahoga, State of Ohio, have  
5 invented certain new and useful Improvements in Bed-Sofas; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable  
10 others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to new and useful  
15 improvements in bed-sofas; and it consists in the construction and arrangement of parts, as hereinafter fully set forth, and pointed out particularly in the claims.

The object of the invention is to construct  
20 a sofa in such manner as to enable it to be readily converted into a bed and in which the construction is such that when folded or closed to serve as a sofa the clothing of the bed is contained therein and all parts so adjusted  
25 and secured as to present the appearance of an ordinary article of furniture of this character. This object is attained by the mechanism illustrated in the accompanying drawings, in which—

30 Figure 1 is a general perspective view of my improved bed-sofa. Fig. 2 is a like view showing the position of parts when serving as a bed. Fig. 3 is a perspective view of the device partially opened, a portion of the end  
35 being broken away to show construction of parts. Fig. 4 is an end elevation of Fig. 3 with the bed half opened. Fig. 5 is an enlarged detail of a portion of the back, showing manner of locking end rolls.

40 Referring to the letters of reference, A designates the body or frame of the sofa, having a suitable back A' and end pieces A''.

The bottom or seat B of the sofa may be formed of the ordinary springs, which are  
45 mounted in a rectangular frame B' and are covered with the usual upholstery. This frame B' is so mounted that it may be reversed or turned over in the frame of the sofa within its own width, so as to present the upper face  
50 or seat thereof downward and the bottom upward. This movement is accomplished by means of the construction shown more clearly

in Figs. 3 and 4, which consists of a plate C, let into the opposite inner faces of the end pieces A'' at each end of the sofa and provided  
55 with a horizontal slot *a* therein, in which the headed pins *a'* lie and are adapted to move longitudinally. These pins are secured in the end rails of the frame B' at one side of the longitudinal center of said rails and nearer  
60 the rear edge of said frame, the pins being entered in said slots through the opening *a''* communicating with said slots through the upper edge of said plates. At each end of the reversible seat or bottom is employed a  
65 connecting link or arm D. The inner end of said arm is pivoted at *e* to the plate C and the outer end thereof to the end rails of the frame B', as at *e'*. With this construction when the parts are in their normal position,  
70 as shown in Fig. 1, the pins *a'* will lie in the extreme inner end of the slots *a* and the arms D parallel to and between the plates C and the ends of frame B'. In this position and when the seat or bottom of the sofa is un-  
75 locked, as hereinafter described, by depressing the rear edge of said seat it may be reversed or turned over to present the bottom upward, in which operation the function of the arms D causes the pins *a'*, on which the  
80 seat is supported, to travel outward in the slots *a*, thereby raising the seat or bottom as it revolves, so that the lower corner passes free from the floor, as shown in Fig. 3, enabling it to turn within its own width. When  
85 this operation is complete, the pins *a'* lie in the outer end of the slots *a* and the bottom of the seat is presented upward, as clearly shown in Fig. 4. When it is desired to restore the seat or bottom to its normal position,  
90 it is reversed by depressing the outer edge thereof, causing it to swing back to the position shown in Fig. 1, as will be well understood, the pins *a'* traveling backward in the slots *a*. 95

E designates a supplementary frame which is substantially of the same form as the frame B' and is hinged to the rear edge thereof, as shown at *b*, and adapted to fold against the under face of said frame B'. This frame E  
100 is employed to convert the sofa into a double bed and is adapted to unfold outward when the seat is reversed, as shown in Fig. 2, being provided with the legs E', hinged to the



rails of said frame and adapted to swing down and support the outer edge of the frame E when open. Within said frames B' and E is any suitable arrangement of springs or mattress F, which is divided through the center to permit said frames to fold together. The edges of the rails of said frames stand higher than the surface of the mattress, so as to form a space between the frames when folded for the retention of the bedclothes, enabling them to be folded between said frames and obviating the removal of the clothing when the bed is not in use.

In Fig. 2, G designates the retaining-straps, which are secured across the clothing on frame E and retain them in place while said frame is being folded onto frame B' in the operation of closing the bed. Hinged at the head of said frames are the wings G', which are turned outward, as shown by dotted lines, when the bed is made up, to support the pillows, turning in upon the mattress when the bed is closed.

For the purpose of locking the frame B' to prevent any tipping thereof when the bed is in service there are employed the elbow-levers f, which are pivotally mounted at each end of said frame and adapted to be actuated to thrust their locking ends f' through the end rails of the frame and into corresponding keepers in the inner faces of the end pieces A'', as shown at f in Fig. 4, thereby securely locking the frame B' in place.

To fold the parts together after serving as a bed, the clothes, including the pillows, if desired, are secured by the straps G and the frame E folded onto the frame B'. The legs E' are then folded onto the frame E and secured by means of the pivoted angle-arm d, which is mounted on the under face of frame E and is adapted to turn upon its pivot, so that one end thereof will swing over the cross-rail d', connecting said legs, and retain them firmly in place. At the same time the opposite end of said arm enters a recess c in the back face of the depending front piece F', as clearly shown in Fig. 3, and thereby locking the frame E as well in its folded position against the frame B'. Said frame B' is then unlocked by disengaging the elbow-levers f, when said folded parts are turned or reversed to bring the seat of the sofa uppermost, as shown in Fig. 1, in which position presenting the appearance of an ordinary sofa, but capable of being at once converted into a bed.

The arm-rests or rolls II at the ends are hinged at i to the end pieces A'' and are adapted to turn outward when making the sofa into a bed; but when the sofa is closed these rolls or arm-rests are turned inward and lie across the ends of the seat, and being se-

cured in this position they prevent any tipping or accidental turning of the seat and folded parts. To securely retain the end rolls II in this position, an arm h is pivoted at o to the rear ends thereof, as shown in Fig. 5, and passes through a clip or keeper k, attached to the back A'. A notch s in the under edge of said arm is adapted to engage said keeper to lock said rolls when turned inward, so as to lie across the ends of the seat, and while locked in this position the sofa cannot be opened. To unlock said arms so as to permit the rolls to turn outward, the outer end thereof is depressed to raise the inner end and disengage the notch s, when said arms will draw freely through the keepers k as said rolls are turned outward, as shown by dotted lines.

The depending front piece F' hides all the folded parts and adds a good appearance to the sofa when closed.

If desired, this device may be arranged for a single bed by omitting the supplementary frame E', in which case the straps G may be attached to frame B' and the clothes retained in the same manner.

To prevent the frame B' from swinging too far when reversed, a pin e'' is set in the end rail of said frame, with which the upper edge of the arm D engages as said frame reaches a horizontal position, as shown in Fig. 4.

Having thus fully set forth my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a bed-sofa, the combination of the fixed frame having the end pieces, the bottom or seat-frame reversibly mounted in said fixed frame, the arm-rests at the ends hinged to said end pieces so as to fold outwardly and having a flat under face which rests upon said end pieces, said arm-rests adapted to lie across the ends of the seat-frame when closed to secure it from turning, the arms pivoted to the rear ends of said arm-rests having a notch therein, and the keepers secured to the back of the sofa with which the notches in said arms are adapted to engage to lock said arm-rests.

2. In a bed-sofa, the combination of the reversible frame, the supplementary frame hinged thereto, the folding legs attached to said supplementary frame, and the bent locking-lever pivoted to the folding frame and adapted to engage said reversible frame for securing said legs in their folded position and locking the hinged frame to the reversible frame.

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

ANDREW MARTENSON.

Witnesses:

JAY ODELL,

JOHN W. DENMAN.