No. 898,399. PATENTED SEPT. 8, 1908.

L. ALBERT.

COMBINATION BED AND SOFA.

APPLICATION FILED OCT. 9, 1907.

Fig. 1.

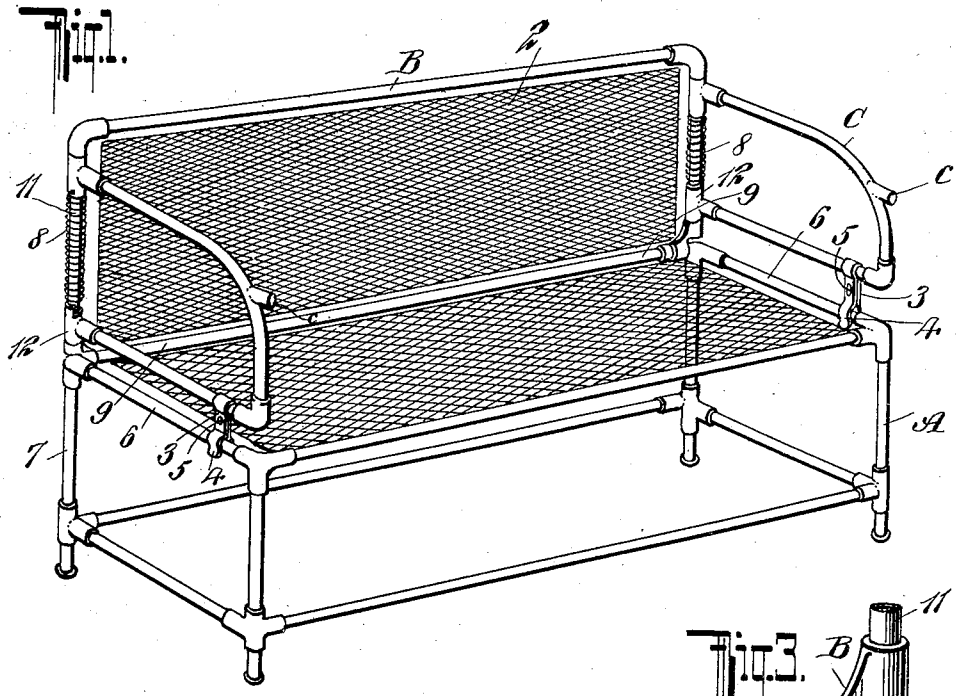


Fig. 3.

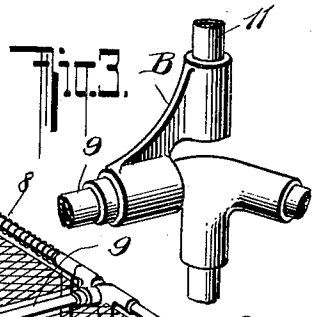


Fig. 2.

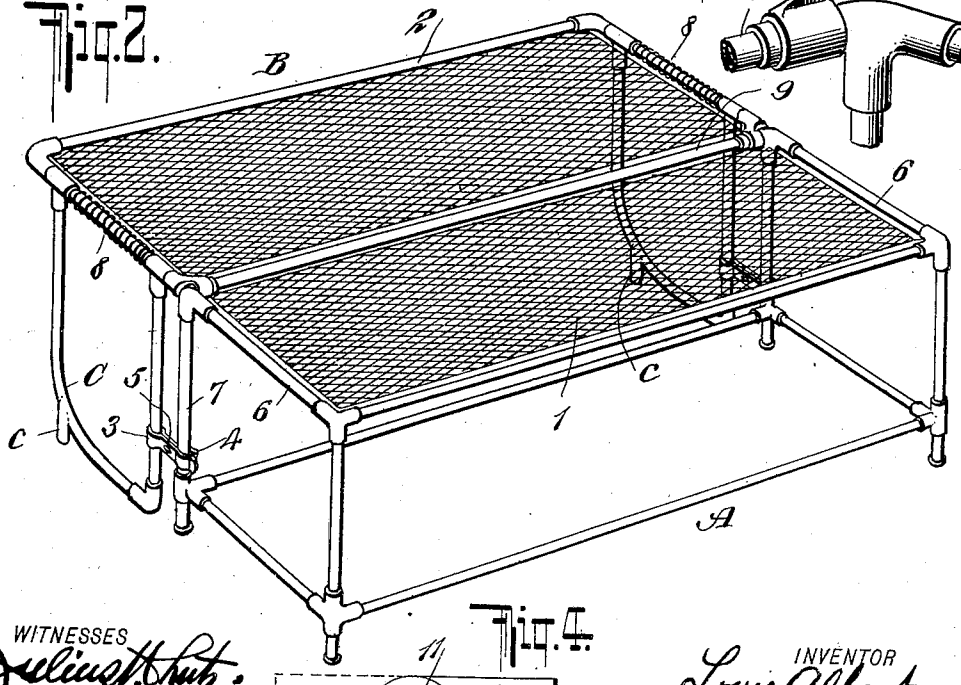
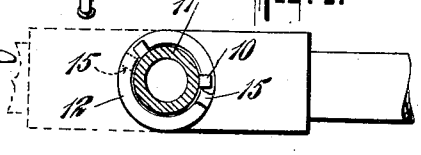


Fig. 4.



WITNESSES

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COMBINATION BED AND SOFA.

No. 898,399. Specification of Letters Patent. Patented Sept. 8, 1908.

Application filed October 9, 1907. Serial No. 396,561.

To all whom it may concern:

Be it known that I, LOUIS ALBERT, a citizen of the United States of America, and a resident of the city, county, and State of New York, have invented certain new and useful Improvements in a Combination Bed and Sofa, of which the following is a specification.

My invention consists in a combined sofa and bed or couch.

The object is to obtain a simple and inexpensive construction for a convertible device of this character.

Hitherto there has been a very great variety of combination sofas and beds invented and placed upon the market, but usually the object sought has been attained only imperfectly, and many of the constructions are cumbersome, expensive and inefficient. I am trying to provide an acceptable construction which can readily be used as a sofa or settee and also as a bed, and in either capacity will serve equally well, the transformation from the one to the other whenever desired being effected by a simple manipulation of the parts, which is done with great facility and rapidity and without requiring any skill in the adjustment.

The invention, therefore, consists essentially in the construction, combination and arrangement of parts, substantially as will be hereinafter described and claimed.

In the accompanying drawing illustrating my invention, Figure 1 is a perspective view of my improved combination sofa and bed, when occupying the sofa position. Fig. 2 is a perspective view when the parts are unfolded to serve as a bed or couch. Fig. 3 is an enlarged detail view of one of the hinges at the corner. Fig. 4 is a sectional view, to show the stop for limiting the movement of the arms when the article is being converted from a sofa into a bed.

Similar characters of reference designate corresponding parts throughout the different figures of the drawing.

A designates the main frame which is of a general rectangular shape and designed to remain rigidly on the floor, and to provide the seat of the sofa and one-half of the bed when the device serves as a bed. The main frame A is preferably made of some light, strong material, such as metal tubing, and the seat portion thereof consists preferably of woven wire netting or mattress, as 1, which is stretched upon the frame and which serves to receive and carry any upholstery which may be provided. The main frame A, as it is not intended to be changed or converted but remains substantially the same, whether the article is serving as a bed or as a sofa, may be looked upon as a permanent portion of the article; whereas the other part, which is hinged thereto and is movable and adjustable, differs from the frame A in the respect of being caused to change its position to serve its different functions. This second movable portion of the combined sofa and bed is designated B, and consists of a woven wire surface 2 carried in a suitable rectangular frame and serving as the back of the sofa, while hinged at both ends of the back are the arm frames C. The back frame B, as well as the arm frames, are commonly composed of stiff and strong metal tubing.

The back frame B normally occupies a vertical position, when the device is acting as a sofa or chair, and is hung pivotally, as indicated in Fig. 3, on one of the horizontal rails 9 of the main frame A. The arm frames C are pivotally connected to the ends of the back frame B, as shown in Fig. 1, the springs 8, coiled around parts of the frame B and connected thereto and to the pivotal portions of the arm frames C, serve to automatically throw the arm frames outwardly and over into their other position, when the device is being transformed from a sofa into a bed, or the springs may be arranged to accomplish the other and reverse purpose. I find it most convenient, however, to attach these springs 8 in such a manner that when the arms are released from their arm position, they will serve to throw said arms around into the leg position. In Fig. 4, I have indicated a detail view showing pins or stops 10 on the rods 11 of the back which are adapted to be struck by a pin or shoulder 15 on the swiveling sockets 12 of the arm frames C.

3, 3, denote clasps which are carried by the arm frames C. These clasps consist of short pieces of metal that are caused to embrace the lower rods of the arm frames C, and then have their parts secured together by rivets or

bolts at 5, thereby leaving spring ends 4 which are curved and designed to embrace and tightly grip the top end rails 6 of the main frame A when the device is in a sofa position; and when it is reversed into the bed position shown in Fig. 2, the spring ends 4 of these clasps 3 will similarly engage and tightly grip the rear legs 7 of the main frame A, as also shown in Fig. 2.

As I have already said, when the parts are in the sofa position, the back B with its wire netting 2 occupies a vertical and upright position, so that it may receive cushions or upholstery; while the end arms C are lying in a horizontal position or are projecting forwardly alongside of the ends of the main frame A and are held in this position by means of the clasps 3. At this time, the springs 8, with which the arms are provided as already specified, are preferably under tension and ready to act to automatically throw the arms around on their pivotal connections with the back frame whenever the arms are released. If now it is desired to convert the article into a bed, the operator will first release the clasps 3 by detaching the spring ends 4 from the rails 6, thus setting free the arm frames C; and as the back frame B is now pushed backward and downward into a horizontal position so as to form in conjunction with the top of frame 1 a single bed frame with a comfortable horizontal surface of considerable size for the reception of a mattress, it will result that the arms C at the same time under the assistance of a manipulation, and under the actuating power of the springs 8, will be rotated upon their pivotal connections with the back frame, and brought around into a vertical position beneath the now horizontal back frame, as shown in Fig. 2, where said arm frames C act as legs for supporting the frame B so that it may serve in conjunction with the frame A as a bed. The pins and shoulders, already mentioned, at 10 and 15, assist in stopping the movement of the arms C under the impulse of the springs 8 at the proper point. When the arms C are properly situated to serve as legs, the clasps 8 can be reversed in position, and the spring ends 4 caused to engage the rear legs 7 of the main frame A. The parts may be restored to the position that they occupy when the article is employed as a sofa with the same facility that they are changed for the purpose of converting the article into a bed, and it will be found in practical experience that the simple and convenient relation of the parts to each other will contribute very much to the efficiency of the article as a useful piece of furniture.

In speaking of the article as serving at one time as a sofa, I, of course, include the idea of its being so built that it might be called a settee or a chair, or otherwise designated as an article of furniture on which a person can sit; and when I speak of it as occupying at other times the position of a bed, I mean, of course, that it takes the form on which a person can conveniently lie. Very many changes in the precise construction and in the details and relative position of the different parts may be made without exceeding the legitimate scope of the invention.

The arm frames C being shown as curved, it is found desirable in practice to provide the curved portions with projections *c* which may be of sufficient size and proper shape to enable them to serve as feet, and hence to allow the arms, when reversed into the leg position, to rest firmly on the floor at two points, thus affording a firm and rigid support for the reversed half of the bed. These projecting feet *c* may vary widely in their form and size, and may be mere ornamental knobs if preferred, and of course the arms themselves may at times be so shaped as to dispense with the necessity of the knobs *c*, but in the preferred form of the invention they are employed.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. In a sofa and bed, the combination of a permanent stationary frame serving as a seat for the sofa and as a part of the bed, a second frame hinged to the first and reversible so as to serve at one time as a back for the sofa and at another time when reversed as a part of the bed, forming in the latter position a horizontal surface in the same plane with the seat, arm frames hinged at each end of the reversible frame and being movable on said ends so that they may occupy arm positions in conjunction with the seat at one time and may be reversed at another time so as to lie underneath the reversed frame and serve as legs for the bed, and clasps for connecting said arm frames at one time to the stationary frame at one point when said arm frames are in the arm position and connecting them when they are in the leg position to another point of the main frame.

2. In a sofa and bed, the combination of a permanent stationary frame serving as a seat for the sofa and as a part of the bed, a second frame hinged to the first and reversible so as to serve at one time as a back for the sofa and at another time when reversed as a part of the bed, forming in the latter position a horizontal surface in the same plane with the seat, arm frames hinged at each end of the reversible frame and being movable on said ends so that they may occupy arm positions in conjunction with the seat at one time and may be reversed at another time so as to lie underneath the reversed frame and serve as legs for the bed, and clasps for connecting said arm frames at one time to the stationary frame at one point when said arm frames are in the arm position and connecting them

when they are in the leg position to another point of the main frame, together with spring devices arranged in connection with the arm frames and the reversible frame for the purpose of automatically assisting in the unfolding or folding operation, all substantially as described.

Signed at New York city, this 4th day of October, 1907.

LOUIS ALBERT.

Witnesses:
RICHARD CONDON,
C. B. SCHROEDER.