

C. DRIVER.
COUCH BED.

No. 538,668.

Patented May 7, 1895.

Fig. 1.

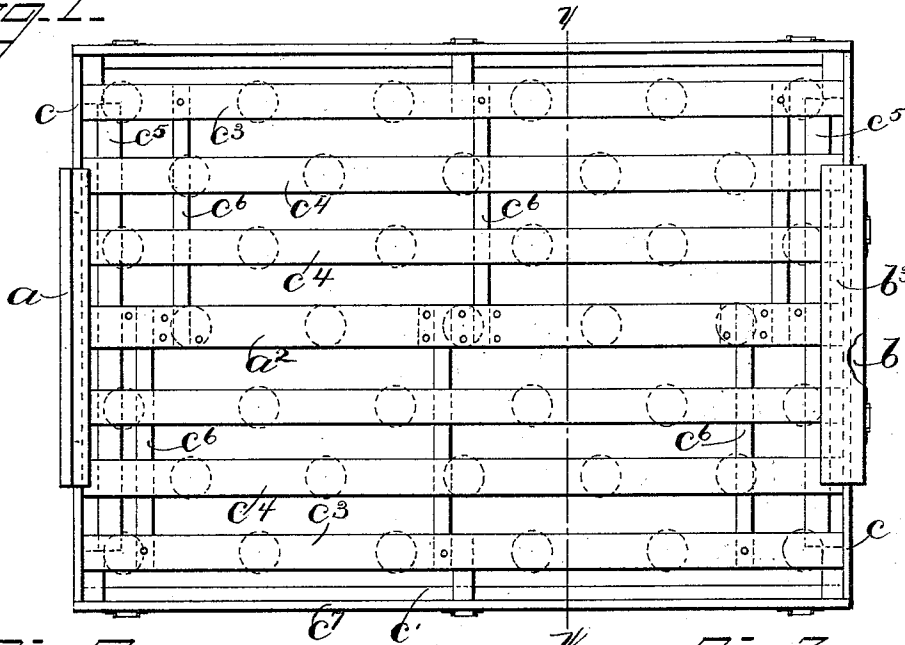


Fig. 2.

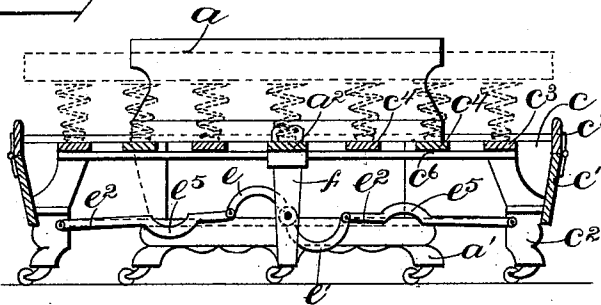


Fig. 3.

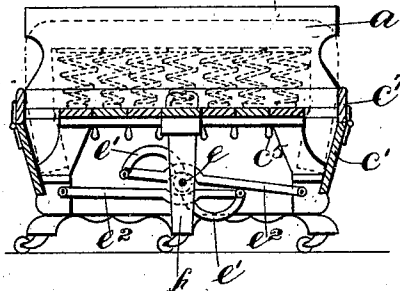


Fig. 4.

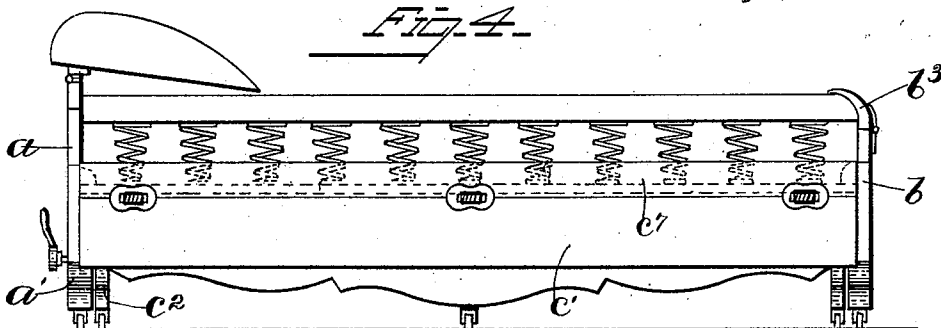
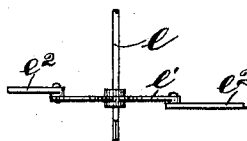


Fig. 5.



WITNESSES.

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(No Model.)

2 Sheets—Sheet 2.

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Fig. 6-

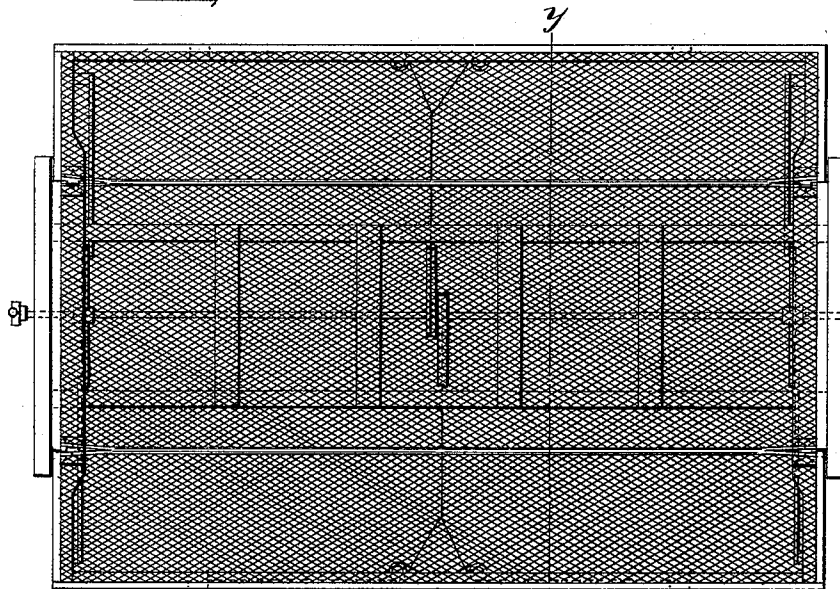


Fig. 7-

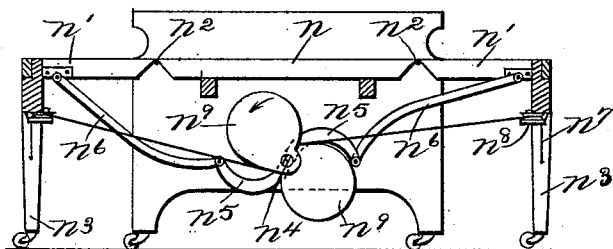


Fig. 8-

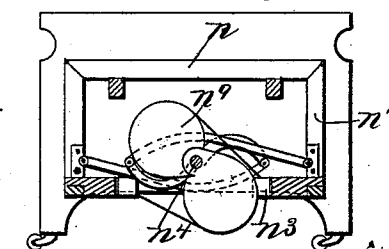
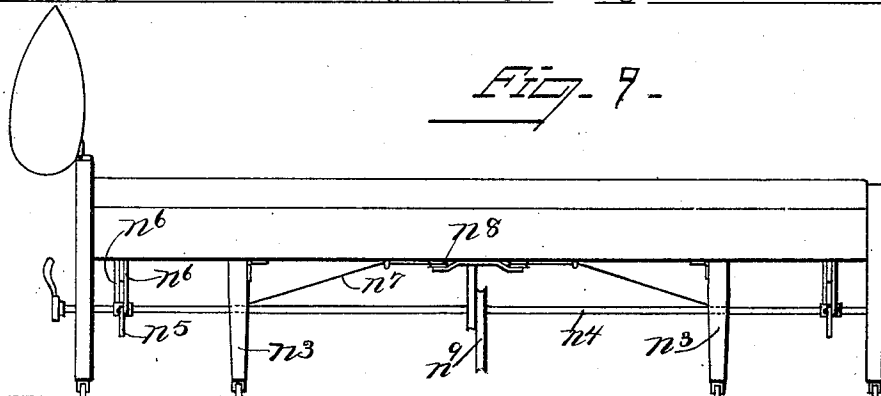


Fig. 9-



WITNESSES.

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UNITED STATES PATENT OFFICE.

CHARLES DRIVER, OF BOSTON, MASSACHUSETTS.

COUCH-BED.

SPECIFICATION forming part of Letters Patent No. 538,668, dated May 7, 1895.

Application filed November 6, 1894. Serial No. 528,022. (No model.)

To all whom it may concern:

Be it known that I, CHARLES DRIVER, of Boston, county of Suffolk, and State of Massachusetts, have invented an Improvement in Couch-Beds, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention has for its object to improve that class of lounge or couch beds such as represented in United States patents granted to W. S. Bowie, Nos. 482,683, 497,798 and 497,749; and the invention consists in details of construction, having particular reference to the operating mechanism by means of which the bed is narrowed or widened, and to the means employed for holding the sides of the mattress when the bed is narrowed and used as a couch, the mattress at such times constituting the upholstery.

Figure 1 shows in plan view my improved lounge or couch-bed, the same being fully extended or widened and the mattress being removed; Fig. 2, a cross-section of the bed shown in Fig. 1, taken on the dotted line xx ; Fig. 3, a similar cross-section showing the parts contracted or narrowed to serve the purpose as a couch; Fig. 4, a side elevation of the bed, the parts being extended and supplied with a mattress and head-rest; Fig. 5, a detail of a portion of the operating mechanism to be referred to; Fig. 6, a plan view of a modified form of bed; Fig. 7, a cross-section of the same, taken on the dotted line yy ; Fig. 8, a similar cross-section showing the parts contracted or narrowed to serve as a couch; Fig. 9, a side elevation of the modified form of bed.

The slatted frame of the bed which is made in such a manner as to be extended or retracted as desired comprises essentially three sections, a middle section and two side sections. The middle section consists of the head board a , provided with legs a' , a' , a foot board b , similarly constructed and a central longitudinal slat a^2 , rigidly connecting the head and foot boards together at points midway their length. The side sections are made substantially alike and each consists of two end pieces c , c , a side piece c' , a slat c^3 , and corner blocks c^2 , all rigidly secured together, and for simplicity the corner blocks are ex-

tended to serve as legs for the section. The side sections are made of just sufficient length to occupy a position between the head and foot boards, moving in and out in suitable guideways provided for them in said head and foot boards.

The rigidly secured slats c^3 occupy a plane with the middle slat a^2 .

The corner blocks c^2 are cut away for a short distance between the slat c^3 and the side rail c' to present a pocket to receive the sides of the mattress. Each side piece is also preferably provided with a third leg arranged at a point midway its length, which is constructed similar to the other legs.

Between the rigidly secured slats a^2 and c^3 , two or more slats c^4 are arranged in parallelism with the other slats, the ends thereof resting upon guideways provided for them, and said slats c^4 , at each side of the central slat a^2 , are connected with the central slat a^2 , and also with the outermost slats c^3 , by flexible bands c^5 or otherwise.

The bands c^5 are of sufficient length, and the slats connected to them at equally distant points in such a manner, that when the bed is extended its full width said bands are drawn taut as represented in Figs. 1 and 2, but when the bed is narrowed said bands between the slats will fold as represented in Fig. 3.

As additional means of guiding and supporting the side sections I have herein provided each side section with an inwardly extended guide-bar c^6 , each section being herein represented as having three such guide-bars, secured to the outermost slat c^3 or otherwise, and the inner ends of said guide bars move in guideways formed upon the under side of the central slat a^2 .

As a means of extending or retracting the bed, which is done by moving the side sections toward and from the middle section, I have herein shown a single central operating shaft e , having its bearings in the head and foot board, and also in a middle leg f depending from the slat a^2 , if such leg is provided.

The central operating shaft e has secured to it at two or more points, two arms e' , projecting in opposite ways from the shaft, said arms being bent as shown in Fig. 2 in opposite ways, and to the extremities of said bent arms links e^2 are connected, the opposite ends

of which are loosely connected with the framework of the side sections. By turning the shaft by means of a hand crank or otherwise in the direction of the arrow in Fig. 2, one half a revolution or thereabout, or into the position shown in Fig. 3, the links e^2 will be drawn inward toward each other, and consequently the side section will be drawn toward the middle section. The links e^2 are bent at e^3 to prevent contact with the shaft when drawn in.

The side rails c' of each side section have hinged to their upper edges auxiliary or extension pieces c^7 , the hinges employed being made as spring hinges, and the sides of the mattress are turned down into the pockets formed by the side rails c' and by the auxiliary spring actuated strips c^7 . These spring actuated strips exert a certain pressure on the mattress which assists in holding it in place.

A curved strip b^3 , see Fig. 4, is connected to the top of the foot board b , also by spring hinges extending inwardly or toward the head of the bed, and forming a recess which receives the foot of the mattress. This strip may be used whether the bed is retracted or extended.

Referring to Figs. 7, 8 and 9, a middle section n , and two side sections n' , are provided, but the side sections instead of sliding in and out with relation to the middle section, are pivotally connected to said middle section at n^2 , and said pivoted side sections are provided with legs n^3 which are hinged thereto, and adapted to be turned up or folded against the side section lengthwise thereof, and a central operating shaft n^4 is provided having bent arms n^5 projecting from it, the extremities of which are connected with links n^6 , which are in turn connected loosely with the side section, so that by turning said shaft n^4 the side sections will be swung on their pivotal connections.

To simultaneously fold the legs n^3 , by means of the central operating shaft, I have herein shown the legs of each section connected by

a cord n^7 , which passes over a pulley n^8 , supported by the side sections, the ends of the cords n^7 of each section being joined together, and then attached to an eccentric disk n^9 , which is rigidly secured to the shaft n^4 . By turning the shaft n^4 , the legs will begin to fold just as or previous to the movement of the side sections.

I claim—

1. In a couch bed, a collapsible spring-supporting frame, comprising a middle section, and two side sections movable toward and from the middle section to narrow and widen the bed, combined with the central operating shaft e , having its bearings in the end of the middle section, a pair of arms e' located at or near each end of said shaft projecting in opposite ways, and links e^2 connecting the extremities of said arms with the movable side sections, substantially as described.

2. In a couch bed, a collapsible spring-supporting frame, comprising a middle section, and two side sections movable toward and from the middle section to narrow and widen the bed, combined with the central operating shaft e , a pair of bent arms e' located at or near each end of said shaft projecting in opposite ways, and links e^2 , bent as shown, connecting the extremities of said bent arms with the movable side sections, substantially as described.

3. In a couch bed, a collapsible spring-supporting frame, comprising a middle section, and two side sections movable with relation thereto, a mattress, and pockets extending lengthwise the side sections, which receive the sides of the mattress, combined with spring actuated strips c^7 , forming extensions of said pockets, substantially as described.

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

CHARLES DRIVER.

Witnesses:

B. J. NOYES,
FLORENCE H. DAVIS.