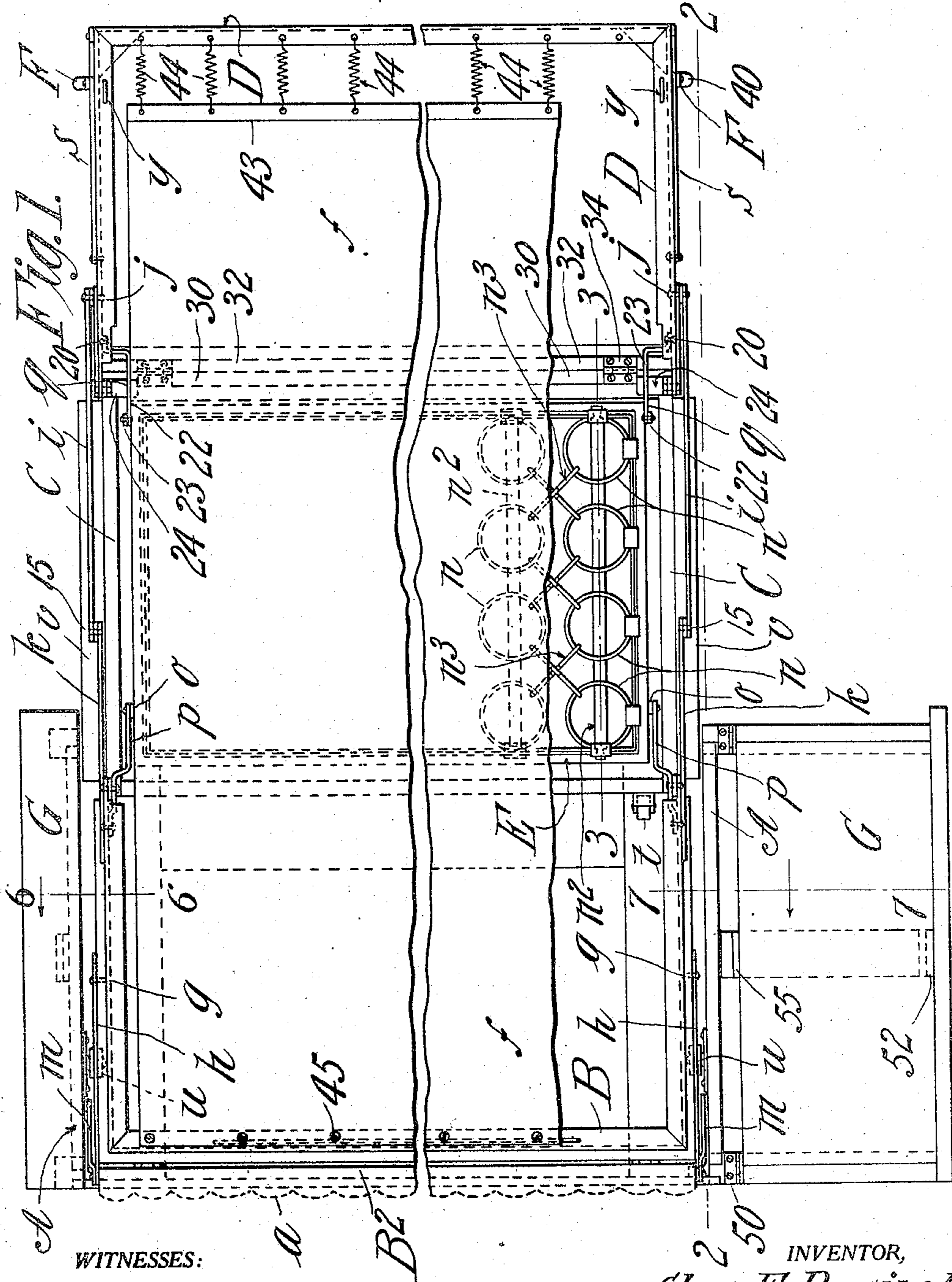


C. F. PERCIVAL.  
 CONVERTIBLE SEAT AND BED.  
 APPLICATION FILED JULY 23, 1908.

924,374.

Patented June 8, 1909.

4 SHEETS—SHEET 1.



WITNESSES:

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4 SHEETS--SHEET 2.

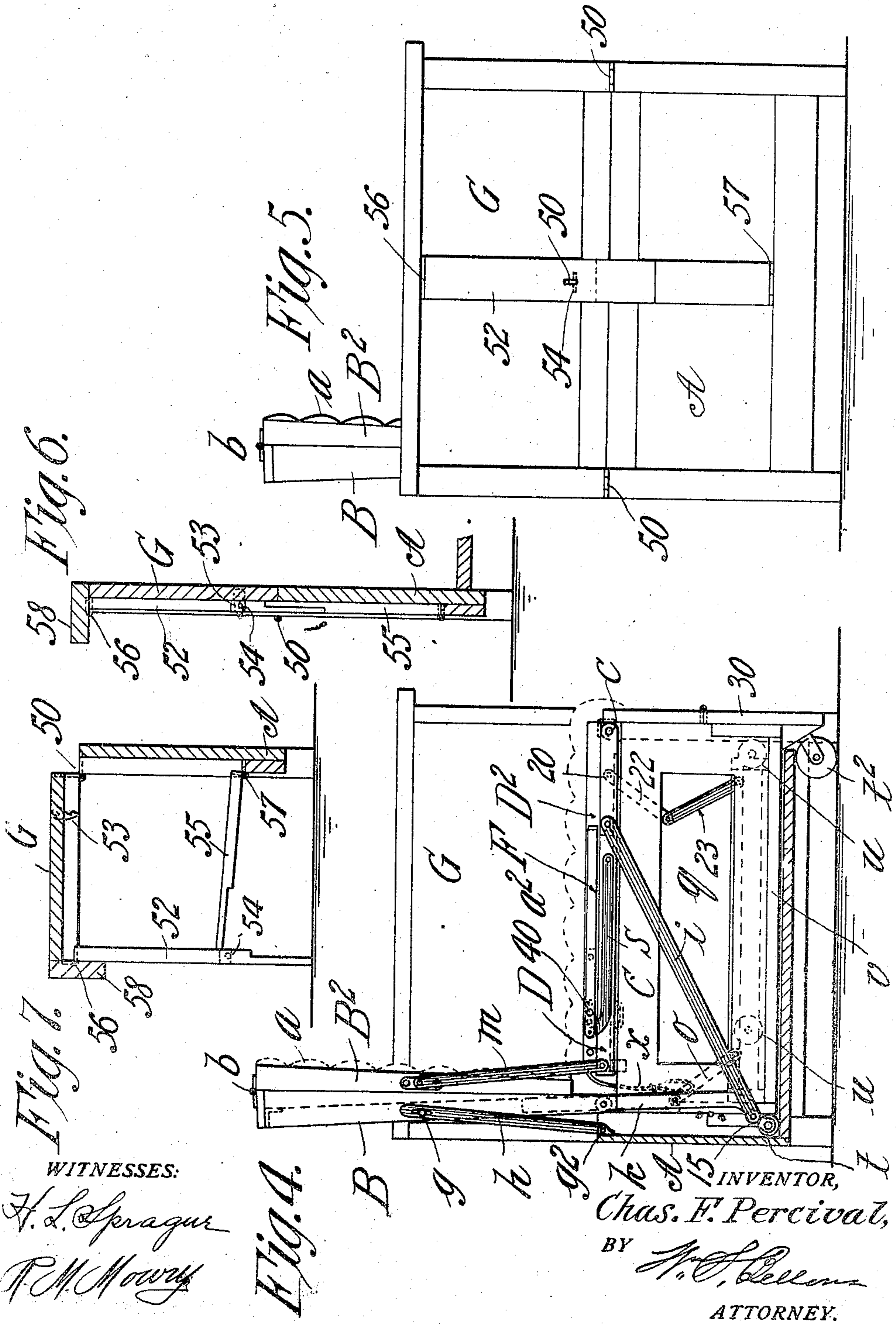


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 4 SHEETS—SHEET 3.



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Fig. 4.

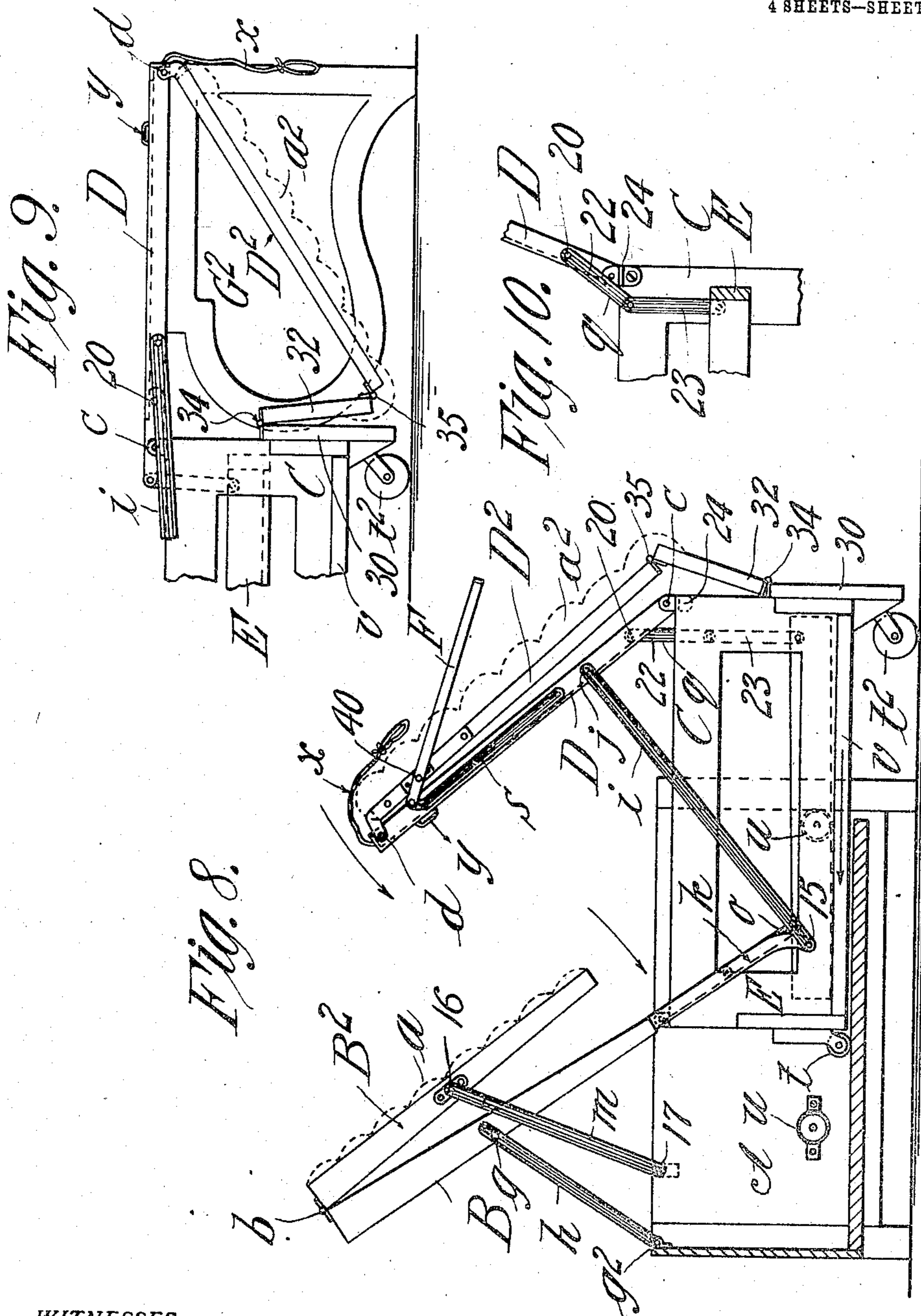
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# UNITED STATES PATENT OFFICE.

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## CONVERTIBLE SEAT AND BED.

No. 924,374.

Specification of Letters Patent.

Patented June 8, 1909.

Application filed July 23, 1908. Serial No. 444,920.

*To all whom it may concern:*

Be it known that I, CHARLES F. PERCIVAL, a citizen of the United States of America, and resident of Springfield, in the county of Hampden and State of Massachusetts, have invented certain new and useful Improvements in Convertible Seats and Beds, of which the following is a full, clear, and exact description.

This invention relates to improvements in lounges or divans including parts which are shiftable and distensible for converting the same into a most excellent bed, and the invention consists in the organization or combination and arrangement of parts and the constructions of parts for capabilities and the attainment of advantages which are hereinafter described and explained, while the means to the ends are defined in the claims.

The improved and operative convertible lounge bed such as has been manufactured commercially is illustrated in the accompanying drawings, made substantially to a scale, in which drawings:—

Figure 1 is a plan view of the apparatus distended for use as a bed; Fig. 2 is substantially a side elevation of the same, parts of the main frame being shown in vertical section as taken along the line 2—2, Fig. 1; Fig. 3 is a view of the frame for supporting a series of springs provided at the intermediate portion of the bed; Fig. 4 is a view similar to Fig. 2, but showing the parts as in their compacted or lounge constituting relations; Fig. 5 is an end view of the lounge; Fig. 6 is a vertical sectional view of parts of and related to the main frame, taken on line 6—6, Fig. 1, the same being shown as in one position, while Fig. 7 is a sectional view of the same shown in its changed positions and as will be hereinafter explained; Fig. 8 is a view similar to both Figs. 2 and 4, but showing the parts as in positions intermediate of those shown in said views; Fig. 9 is a side elevation of a part of the apparatus comprising a modification to be hereinafter referred to. Fig. 10 is a sectional elevation to illustrate a capability of action of a device hereinafter explained.

Similar characters of reference indicate corresponding parts in all of the views.

Briefly initially stated, the lounge bed comprises a main stationary frame or lounge having a frame B constituting the

lounge back, having another frame D normally disposed at or next under the position of the lounge seat and an intermediate frame C which when the parts are compacted as a lounge is nested within the main frame, the forward edge of the said seat frame D being hinge connected at *c* to the upper forward portion of the said intermediate frame C.

The back frame has a supplemental frame B<sup>2</sup> hinge connected at *b* at its upper edge to the normal upper edge of the back frame proper and being usually provided at its front with upholstery *a*; and the seat frame proper D is provided also with a supplemental frame D<sup>2</sup> which has its rear edge hinge connected at *d* to the rear edge of the frame D,—said supplemental frame D<sup>2</sup> being provided at its upper side with upholstery *a*<sup>2</sup> so that when the parts are arranged in a position for constituting the lounge the upholstery carried on the supplemental frame D<sup>2</sup> and horizontally disposed makes a comfortable lounge seat while the upholstery carried on the frame supplemental to the back frame makes a comfortable and slightly lounge back.

The organization is such that the back frame is adapted to have a swinging movement relative to the main or body frame A to assume a lowered horizontal position and disposed forwardly relatively to the rear upper portion of the main frame; the aforementioned intermediate frame C is adapted to be slid forwardly relatively to or out from the main frame, and the seat frame D hinged to the upper forward portion of the intermediate frame and normally superimposed thereon may be overturned and distended, all whereby the back, intermediate and seat frames may have relations one edgewise beyond the next to constitute supports in a substantially common horizontal plane for a mattress or bed bottom, the length of which as a whole is transverse of the length of the lounge.

The several frames are so inter-connected and operative that when the apparatus is converted from a lounge, settle or divan as shown in Fig. 4, into a bed as shown in Fig. 2, the upholstery carrying frame B<sup>2</sup> supplemental to the back frame assumes a reversed position, that is when the frame B is carried downwardly into its horizontal position with its upper edge rearward the supplemental frame is caused to have a move-

ment not only with its hinged edge following the approximate edge of the back frame, but also to have a movement independent of the back frame whereby it assumes a position at right angles thereto and so that comparing Figs. 4 and 2 it will be perceived that the upholstery in the one case is forwardly presented, as proper for making the back of the lounge, while the supplemental frame B<sup>2</sup> constitutes a head board for the bed, the upholstery *a* is positioned at, or faced from the back of the head board; and so also when what is herein termed the "seat frame" is overturned to its horizontally distended position the upholstery on the supplemental seat frame D<sup>2</sup> is caused to assume a protected and oblique position under the overturned frame. It is to be furthermore stated that means are provided in coaction with the several frames whereby by the mere overturning of the seat frame from its lounge position, Fig. 4, to its bed position, Fig. 2, all of the shiftings of the frames to their appropriate bed constituting positions are accomplished, that is the back frame B is brought to its lowered forwardly disposed and horizontal position, the supplemental frame B<sup>2</sup> is caused to become not only facewise reversed but also inverted, the intermediate frame C has a force imparted thereto for sliding it out from within the main frame or body, and the frame supplemental to the seat frame is caused, of itself, to assume its oblique underturned position shown in Fig. 2, and all without the requirement of any manipulations or special operations upon any of the individual frames or connections. There is, moreover, comprised within the intermediate slidable or telescopic frame C, a structure E for sustaining a series of springs *e* which when the apparatus is disposed as a lounge are at a position lowered from that which they have when the apparatus is disposed as a bed, such springs in their elevation assuming a proper position to give a support to the portion of the bed bottom constituting fabric *f* intermediate between the ends of the latter, and yet to be downwardly out of the way or so lowered as not to interfere with the compact folding of the parts to lounge form. And the sustaining structure for the bed bottom supporting springs is automatically raised and lowered in consequence of, and concurrently with, the changes of position of the seat frame; and it is also here stated that duplicated legs F bodily carried by the supplemental seat frame D<sup>2</sup> and peculiarly connected with the seat frame proper D are automatically swung to their positions for sustaining the extremity of the bed structure at the foot thereof, as shown in Fig. 2 concurrently with and by reason of the overturning movement of the seat frame proper.

65 The back frame proper B has at an inter-

mediate portion of the length of each lateral edge a pivotal connection therewith, as shown at *g*, of a link *h* which at its other end is pivotally connected at *g*<sup>2</sup> with the lounge body or main frame at an upper portion of the latter.

A link *i* of considerable length has a pivotal connection at *j* with an intermediate edgewise portion of the seat frame D, and said link also has a pivotal connection with the back frame B,—this connection specifically and as shown at 15 being with the extremity of a rigidly secured arm or extension *k* secured to and formed as a part of the back frame, the point of connection being considerably below the normal lower edge of such frame. The link *i* and back frame arm-extension *k* is duplicated at the opposite edges of the seat and back frame for apparent reasons. Another link *m* has pivotal connections at 16 and 17 respectively with the middle portion of the lateral edge of the supplemental back frame B<sup>2</sup> and with an upper portion of the main frame somewhat forwardly of the connection point *g*<sup>2</sup> of the other link *h*.

In the action of overturning the seat frame proper D, by the constraint assured by the link connection *i* a prying or forcing effect upon the intermediate frame C becomes exerted whereby such frame moves forwardly out from its nested position within the main frame, see Figs. 4, 8 and 2, as in swinging to overturn, the seat frame D creates something like a toggle action through the link *i* and back frame B, and the forwardly advancing frames D and C exert such a force on the back frame B and the movement of the back frame being constrained by the duplicated links *h* it has a floating movement, or compound of bodily forward movement and a swinging or partial revoluble movement so that it finally assumes, as shown in Fig. 2, its lowered horizontal position forwardly disposed relatively to the rear upper portion of the main frame and at, more or less nearly, the level of the top of the intermediate frame C and the overturned distended and horizontal seat frame proper D. And in the action or movement last explained which the frame B has relatively to the frames C and D, the constraint imposed by the duplicated link *m* upon the supplemental back frame B<sup>2</sup> causes the latter frame to open up and become right angularly disposed relatively to the back frame proper; and it will be perceived that the approximately quadrantal movement of the frame B provides for a shifting of the frame B<sup>2</sup> from a vertical to a horizontal position (the presence and action of the link *m* being, for the moment, ignored) so that the hinge point *b* is down at the level of the bed bottom, and at the head end thereof; and then appreciating the

presence and action of the link, the lower connection 17 of which is at a fixed point on the main frame, a prying or forcing action is exerted by the link to cause the supplemental back frame to assume its position, Fig. 2, right angular to the back frame proper, it having a somersaultic movement, inverting its hinged edge and when positioned to constitute a head board for the bed, having the upholstery  $a$ , or what was for the lounge, the front of the back, reversely faced so that when used as a bed the upholstery is not exposed or subjected to wear or liability of becoming soiled.

The support E for several rows of bed bottom supporting springs  $n$ , or such springs having any appropriate arrangement is fitted or accommodated, and is vertically movable, within the upwardly open intermediate frame C which latter is, advantageously, in the form of a rectangular box. This spring supporting frame E, as shown in Figs. 1 and 3 comprises a plurality of cross bars or slats  $n^2$  with which the lower ends of the axially vertical spiral springs have supporting connection while the upper portions of the several springs are connected by uniting members  $n^3$ .

It will be here stated that Figs. 2 and 3 are relied upon for imparting ample disclosure of the springs  $n$  and the relations thereof to the sustaining structure E therefor and to the bed bottom constituting fabric  $f$ ,—it being deemed advantageous to omit representations of the springs in Figs. 4 and 8 for the avoidance of obscurity of the other contrivances sought to be clearly represented in such views.

Each lateral portion of the spring supporting structure has supporting or suspension connections whereby such structure will be automatically raised and lowered because of, and concurrently with the movements of, the seat frame, which connections are seen to consist of a link  $o$ , the lower end of which is pivotally connected to a rearward portion of the spring frame E while its upper end is pivotally connected to an arm  $p$  extended in a downward direction from the vertical edge of the back frame proper and bent into a plane offset from that of the fixed arm extension  $k$  so as to have its shifting movements within the lateral wall of the intermediate frame C for acquiring its pivotal connection as aforesaid with the spring support; and as seen to furthermore consist of another link  $q$ , the upper end of which is pivoted at 20 to the seat frame suitably distant from its hinge  $o$  while its lower end is connected to the spring frame near its edge opposite from the point of connection of the link  $o$ . The latter named link  $q$  is made of two pivotally jointed sections 22 and 23 which when the frames are in the "lounge"

position, Fig. 4, and the spring support lowered to rest on the bottom of the intermediate frame C, are, incidentally slightly angular to each other. As the seat frame is swung upwardly, more or less as shown in Fig. 8, the links  $o$  and  $q$  become effective for elevating the spring support E, and then taking into account that the actuating seat frame completely overturns, so soon as such frame reaches the vertical positions the link  $q$  has a doubling up or jack knife action which is compelled by the abutment of the upper link section against a bracket or fixed projection 24 attached to and extending from the intermediate frame C. And thus while initially there is a straight vertical lifting by the link  $q$ , after the parts have assumed the relative positions shown in Fig. 10, the link section 22 becomes a lever intermediately fulcrumed on the bracket 24, and the completion of the lifting of the spring frame, so far as the link  $q$  is concerned, is accomplished by the swinging of the fulcrumed part 22 operating as a lever and having a suspension section 23 still acting as the link to complete the lifting of the spring frame. The other suspension link  $o$ , as perceived, is a simple suspension member between the extension arm  $q$  and the spring frame.

The front of the telescopic box-like intermediate frame C has a board or wall 30, the upper edge of which terminates below the top of the frame C, and another member, in the present instance represented as a board 32 extending entirely across the front of the frame C and nearly as long as the lounge is, and being in effect a link, is hinge connected to the front board or wall 30 and also to the normally forward or outer edge of the supplemental seat frame D<sup>2</sup>,—and 35 representing the hinge or pivotally connecting points. The supplemental seat frame being thus link connected to a front part of the intermediate frame below the top of the latter, when the seat frame proper D is overturned to the position shown in Figs. 2 and 9, assumes in conjunction with its somersaultic movements a position angular to and considerably open from the seat frame proper, obliquely disposed with the upholstery  $a^2$  carried at its normally upper side downwardly faced and out of the way under the foot portion of the bed.

The leg member F, duplicated at each lateral edge of the supplemental seat frame, has a pivotal connection shown at 40, near the end of the leg bar, to such frame. A link  $s$  connects the short arm of the lever-like leg bar with an intermediate portion of the seat frame proper D with the result of constraining the leg bar F to become right angularly swung relatively to the supplemental seat frame D on which it is pivotally hung in consequence of the swinging or

spreading movement which the frames D and D<sup>2</sup> have one relatively to the other during their somersaultic movement.

In Fig. 4 the leg bar is shown as disposed closely ranging alongside the edge of the supplemental seat frame D<sup>2</sup> while the link is shown as having its doubled-up relation to the leg bar and ranging closely alongside the edge of the seat frame proper, while Fig. 2 shows the other extreme relative position of the parts.

The so-called intermediate frame C has at its rear lower portion one or more rollers or casters *t* which run on the horizontal bottom of the main frame A while the frame C at its forward lower portion in front of the main frame has a depending bracket or brackets carrying one or more rollers or casters *t'* having a rolling bearing on the floor.

For steadying the intermediate frame C in its sliding movements relatively to the main frame, and for preventing, by any possibility, such frame C from having a rising or twisting movement the opposite side walls of the main frame have, internally, near, but slightly above the bottom pairs of rollers *u* mounted on horizontal axis studs beneath which outwardly extended flanges *v* of the frame C have running engagements.

The forward end 43 of the bed bottom constituting canvas, or other fabric *f* (which might be woven wire) is connected by a plurality of spiral springs 44 to the normally rear edge of the seat frame proper while the opposite end of such fabric *f* is connected as indicated at 45 to the normally upper edge of the back frame proper B; and the dotted lines Figs. 2 and 3 at *w* represent a mattress, supported slightly crowned at the middle of the bed by reason of, and in degree corresponding to that of, the elevation or upward projection of the support E and the spiral springs *n* sustained thereon.

When the bed is reconverted to the normal lounge form approximately two-thirds of the bed bottom *f* is folded on itself while the remaining third is carried into a substantially vertical position and concealed between main and supplemental back frames B, B<sup>2</sup>.

It is practicable to accomplish the folding in of the mattress *w*, when the frames are compacted as a lounge so that the mattress will occupy corresponding relations to the bed bottom support just above described; and such is done in practice, the possibility thereof being appreciated when it is taken into account that the several frames are of such open-work or skeletonized form as to afford ample space within their marginal portions for the folded mattress. And the lowering of the spring support and springs when the parts are in lounge form serves

to remove any impediment which might be constituted by such appliances to the folding of the bed bottom and mattress and to the resumption of the seat frame to their proper lounge seat constituting relations.

*a* represents a strap attached to the normally rear edge of seat frame proper D, to constitute a means for upwardly swinging such frame for opening up the apparatus to bed form. This strap may be concealed as represented at Fig. 4, below the back frame, but accessible, by crowding the hand between the adjoined but separable portions of the upholstery *a* and *a'*.

*y y* represent staples or loop-shaped retainers for a strap *y'* which retainers are provided near the lateral sides of the seat frame D near the hinge *d*,—the strap engaged through such retainers being advantageously employed for keeping the mattress close to the seat frame and preventing creeping or displacement otherwise, of the mattress during the changes of relations of parts.

G G represent upward extensions of the opposite lateral walls of the main frame A, serving as head and foot boards for a lounge or settle, the same being hinged at 50 so that they may be swung down to horizontal positions more or less nearly at the level of the top of the main frame proper to serve as rests or tables,—either one or both on which,—for instance, a lamp or reading matter may be supported.

To the upper or outer portion of each extension G a leg constituting bar 52 is hinged connected at 56 to be foldable closely against the side of the part G as shown in Fig. 6, and when so folded to be retained by a catch pawl 53 pivoted to the extension G which has a hook engagement over a stud 54 provided on the leg bar.

55 represents a brace bar exteriorly hinged at 57 to the side of the main frame proper and to be swung outwardly as shown in Fig. 7 to have an engagement with the leg bar for suitably maintaining it in its supporting position.

The extremities of the two bars are reduced in thickness so as to be "halved together" as shown in Fig. 6, whereby these appliances may be compactly related to the side of the main frame and extension G thereof, and to appear as a continuous panel.

The ledge 58, as will be perceived in Fig. 7, constitutes a stop for preventing an excessive swinging movement of the leg bar whereby the brace bar would be rendered ineffective relatively thereto.

In the plan view, Fig. 1, one of the extensions G is represented as in its horizontal table constituting position, while the other is represented as in its normal vertical position.

In Fig. 9 a modification is represented of

the manner of supporting the head and foot members  $G^2$  (which in a sense correspond to those  $G$  above described) that is the extensions  $G^2$  are carried as vertical cheeks with the lateral bars of the seat frame proper  $D$  so that when the apparatus is arranged as a bed these extensions will constitute the leg supports for the overturned seat frames, and when arranged as a lounge they will be in planes coincident with and as extensions of the lateral walls of the main frame to serve as head and foot risers therefor.

In the foregoing description for consistency and uniformity of designation, the parts have been referred to while regarding the lounge form of the apparatus as the "normal," or usual, one, and the references to the locations of portions of the components have been made from such point of view as the basis, but, of course, such references or descriptions are only relative; for what would be considered longitudinal relatively to, etc. the lounge, would be "transverse" etc. relatively to the bed.

The apparatus, organized substantially as described, manifestly, by mere change of dimension, of the parts instead of being a "lounge-bed" may be a chair convertible into a comparatively narrow bed, and the apparatus is practicably available for conversion from chairs or seats to sleeping berths either for railway cars or ships; and while I have hereinabove described with particularity the specific or detailed instrumentalities for the inter-connection and actuation of the several frames or main components, I can within considerable latitude make changes and substitutions in such instrumentalities without departing in substance from my invention.

I claim:—

1. In a convertible lounge and bed, in combination, a back and a supporting frame to which it is jointed for swinging movement relatively thereto, a seat section and a support to a forward portion of which the seat section is jointed and connections between the seat section and back through which, by swinging the former from a position over the supporting frame to a position forwardly thereof the back will be moved from its upright to a horizontal position.

2. In a convertible lounge and bed, the combination with a main stationary frame, a back frame rising from the rear of said main frame, link-connected thereto and adapted to have a swinging movement relatively to such frame, to assume a lowered horizontal and forwardly disposed position relatively to the rear upper portion of the main frame, an intermediate frame having a horizontal sliding telescopic movement relatively to the main frame, of a seat frame, hinged to the forward upper portion of the intermediate frame, normally superimposed

thereon, to be overturned and distended horizontally therefrom, and means, actuated by the swinging of the seat frame for imparting the changed relative positions of the said back and intermediate frames.

3. In a convertible lounge-bed, the combination with a lounge frame and a normally vertical back frame rising from a rear upper portion of the frame and link connected, at an intermediate portion thereof, to said frame, of a hinged seat frame, normally horizontal and substantially at right angles to the back frame, and hinge supported to be overturned and to occupy a distended horizontal position, and a link connecting the seat frame and the back frame, whereby the overturning movement of the seat frame will impart a shifted movement of the back frame to bring the latter to a lowered position and disposed in a horizontal plane.

4. In a convertible lounge-bed, the combination with a lounge frame and a normally vertical back frame rising from a rear upper portion of the frame link-connected, at an intermediate portion thereof, to said frame, and having a supplemental frame edgewise hinged to the upper portion of the back frame, and normally related facewise to the forward side of such back frame, of a seat frame, normally horizontal and substantially at right angles to the back frame, and hinge supported to be overturned and to occupy a distended horizontal position, a link connecting the seat-frame and the back frame, whereby the overturning movement of the seat frame will shift the back frame to a lowered position and disposed in a horizontal plane, and means for constraining the said supplemental frame, on the shifting of the back frame to assume a position vertically and at right angles thereto.

5. In a convertible lounge-bed, the combination with a main frame and a normally vertical back-frame rising from a rear upper portion of the main frame link-connected, at an intermediate portion thereof, to said frame, and having a supplemental frame edgewise hinged to the upper portion of the back frame, and normally disposed facewise relatively to the forward side of such back frame, of a seat frame, normally horizontal and substantially at right angles to the back frame, and hinge supported to be overturned and to occupy a horizontal position in a forwardly shifted location, a link connecting the seat-frame and the back frame, and a link connecting the main frame and said supplemental frame at an intermediate portion of the latter.

6. In a convertible lounge-bed, a main stationary frame, a back frame normally in a vertical position rising from the rear of said main frame, an intermediate frame having a horizontal sliding movement and to be telescoped relatively to the main frame, and a

seat frame hinged to the forward upper portion of the intermediate frame, normally superimposed thereon, a link connecting the main frame and an intermediate portion of the back frame, and another link connecting an intermediate portion of the seat frame and the back frame.

7. In a convertible lounge-bed, a main stationary frame, a back frame normally in a vertical position rising from the rear of said main frame, and having a supplemental frame hinged to its upper edge and normally disposed in proximity to the front thereof, an intermediate frame having a horizontal sliding movement and to be telescoped relatively to the main frame, a seat frame hinged to the forward upper portion of the intermediate frame, and normally superimposed thereon, and adapted to be overturned to occupy a horizontal position farther from the main frame, a link connecting the main frame and an intermediate portion of the back frame, another link connecting an intermediate portion of the seat frame and the back frame, and still another link connecting the main frame and an intermediate part of the supplemental frame.

8. In a convertible lounge-bed, the combination with a main stationary frame, a back frame rising from the rear of said main frame, link-connected thereto and adapted to have a swinging movement relatively to such frame, to assume a lowered horizontal and forwardly disposed position relatively to the rear upper portion of the main frame, an intermediate frame having a horizontal sliding telescopic movement relatively to the main frame, of a seat frame, hinged to the forward upper portion of the intermediate frame, normally superimposed thereon, and to be overturned and distended horizontally therefrom, means, actuated by the swinging of the seat frame for imparting changed relative positions as described of the said back and intermediate frames, a bed bottom spring supporting bar or tray in the intermediate frame and links connecting said spring supporting bar from the back and seat frames, and for supporting it at different heights according to the positions of said frames.

9. In a convertible lounge and bed, in combination, a supporting frame and a back frame, jointed to the supporting frame for swinging movement from an upright to a horizontal position relatively thereto, a seat section and a support to a forward portion of which the seat section is jointed, a flexible mattress supporting fabric having one end portion thereof connected to the normally upper portion of the back frame, and having its other end portion connected to the normally rearward portion of the seat frame and at the underside thereof, and a link having connection with the seat section and with

the back through the medium of which the swinging or overturning movement of the seat section will cause a movement of the back from its upright to a lowered and horizontal position, and whereby will be changed from its folded and angular dispositions to a linear one in stretched condition lengthwise of the bed.

10. In a convertible lounge and bed, in combination, a supporting frame and a back to which it is jointed for swinging movement relatively thereto, a seat section and a support to a forward portion of which the seat section is jointed, and a link having connection with the section and with the back through the medium of which the swinging or overturning movement of the seat section will cause a movement of the back from its upright to a lowered, and horizontal position.

11. In a convertible lounge bed, the combination with a lounge frame comprising vertical opposite sides and back, and a horizontal bottom, and open at top and front, and a normally vertical back frame rising from a rear upper portion of the lounge frame and link connected by an intermediate portion thereof to such frame, of an intermediate frame adapted to be disposed within the lounge frame, having a roller at its rear lower portion, to run upon the bottom of such frame and having a depending bracket at its forward portion carrying a roller to run on the floor forward of the lounge frame, a seat frame hinge-connected to the intermediate frame, normally superimposed thereon and adapted to be overturned and extended therefrom, and means actuated by the seat frame and connected with the back frame, and operative, upon the swinging of the seat frame, to cause the shifting from vertical to a lowered and advanced horizontal position of the back frame, and a forwardly forcing of the intermediate frame relatively to both the lounge frame and the so shifted back frame.

12. In a convertible lounge bed, the combination with a lounge frame comprising vertical opposite sides, a back and a horizontal bottom, open at top and front and having rollers mounted internally of its sides near its bottom, and a normally vertical back frame rising from a rear upper portion of the lounge frame, and link connected at an intermediate portion thereof to such frame, of an intermediate frame slidable relatively to and adapted to be disposed within the lounge frame, having oppositely projecting flanges at its lower portion for engagement below said rollers, a seat frame hinge connected to the intermediate frame normally superimposed thereon and adapted to be overturned and extended therefrom, and means actuated by the seat frame and connected with the back frame and opera-

tive, upon the swinging of the seat frame to cause the shifting of positions of the back and intermediate frames.

13. In a convertible lounge bed, in combination a main stationary frame, a back frame rising from the rear of said main frame, link connected thereto and adapted to have a swinging movement to shift the back frame into a horizontal forwardly disposed position relatively to the rear upper portion of said main frame, an intermediate frame having horizontal sliding movement relatively to the main frame, a seat frame having its forward edge hinged to the upper forward portion of the intermediate frame, normally superimposed thereon and having a supplemental frame rearwardly edgewise hinged, and facewise related thereto, a member pivotally connected to the forward edge of said supplemental frame and to the front of the intermediate frame, and means, actuated by the overturning movement of the seat frame for imparting the changed relative positions of the back and intermediate frames.

14. In a convertible lounge bed, in combination, a main stationary frame, a back frame rising from the rear of said main frame, link connected thereto and adapted to have a movement to swing the seat frame into a horizontal forwardly disposed position relatively to the rear upper portion of said main frame, an intermediate frame having a horizontal sliding movement relatively to the main frame, and having a board across its front, upwardly terminating below the top of the intermediate frame, a seat frame having its forward edge hinged to the upper forward portion of the intermediate frame, normally superimposed thereon and having a supplemental frame rearwardly edgewise hinged, and facewise related thereto, a board having its upper edge pivotally connected to the forward edge of said supplemental frame and having its lower edge pivotally connected to the upper edge of said board provided across the front of the intermediate frame, and means, actuated by the overturning movement of the seat frame for imparting the changed relative positions of the back and intermediate frames.

15. The combination with a main stationary frame, a back frame link connected thereto, an intermediate frame horizontally slidable into and out from the main frame, of a seat frame having at its rear edge a hinge connection with the intermediate frame, to be superimposed thereon and to be overturned and extended therefrom, and carrying a member to constitute a supporting leg and means, actuated by the swinging of the seat frame for imparting changed relative positions to the back and intermediate frames.

16. In combination, a main stationary frame, a back frame normally vertical and rising from the rear of said main frame and link connected by an intermediate portion thereof to the rear upper portion of the main frame and having a supplemental upholstery carrying frame hinge connected thereto at its upper edge and normally facewise related to its forward side, an intermediate frame slidable horizontally relatively to the main frame, a normally horizontal seat frame having its forward edge hinge connected to the upper forward portion of the intermediate frame and having a supplemental upholstery carrying frame which by its rear edge is hinge connected to the rear edge of the seat frame, a member pivotally connected to the forward edge of the frame supplemental to the seat frame and to a forward portion of the intermediate frame, and means actuated by the swinging of the seat frame for imparting changed relative positions of said intermediate frame and of the back frame and for insuring that the normally disposed frame supplemental to the back frame and the frame supplemental to the seat frame will have their upholstery carrying sides the one rearwardly turned and the other downwardly and forwardly inclined.

17. The combination with a stationary main frame, a back frame rising from the rear of said main frame and shiftable relatively thereto, and an intermediate frame slidable relatively to the main frame, of a seat frame, hinged to the forward upper portion of the intermediate frame, and adapted to be overturned from its normal horizontal position to a horizontal position sidewise beyond the intermediate frame, and having means for supporting it from the floor while in its latter position, and means actuated by the seat-frame for shifting the back frame to a lowered and forward location, and for forwardly moving the intermediate frame and the seat frame therewith.

18. In combination, a back frame, a seat frame and another frame to which the seat frame is hinged, a supplemental frame having by one edge a hinge connection with the seat frame proper, and having by its other edge a link connection with said frame to which the seat frame is hinged, a leg bar pivoted near one end thereof to the supplemental seat frame and a link connected to the seat frame proper and to the short member of the leg bar for the purposes set forth.

19. In combination, a stationary main frame, a back frame shiftable from a vertical to a lowered horizontal position relatively to the main frame, an intermediate frame slidable relatively to the main frame and a seat frame hinged to a forward upper portion of the main frame and having a supplemental frame hinged thereto, a leg bar pivoted near its end to the supplemental frame, adjacent

the hinge of such frame, and a link connected to the seat frame and to the short arm of the leg bar.

20. The combination with a main stationary frame, a back frame shiftable from a normally vertical to a lowered, advanced and horizontal position, and an intermediate frame telescopic relatively to the main frame, of a seat frame hinged to the intermediate frame, adapted to be overturned relatively thereto, and having a supporting leg carried thereby, and pivotally mounted relatively thereto, and means for automatically swinging the leg to its seat frame supporting position on the overturning of such frame.

21. The combination with a main stationary frame, a back frame shiftable from a normally vertical, to a lowered advanced and horizontal, position, an intermediate frame telescopic relatively to the main frame and a seat frame hinged to the intermediate frame, of an extension section hinged at the upper side portion of the main frame adapted to be swung from its vertical position of extension above the lounge seat level, to a horizontal shelf constituting portion, and means for temporarily sustaining the extension section in its shelf-like position.

22. The combination with a main stationary frame, a back frame shiftable from a normally vertical, to a lowered advanced and horizontal, position, an intermediate frame telescopic relatively to the main frame and a seat frame hinged to the intermediate frame, of an extension section hinged at the upper side portion of the main frame, adapted to be swung from its vertical position of extension above the lounge seat level, to a horizontal shelf constituting position, a leg bar pivoted to the outer portion of the extension section, and foldable thereagainst, and a brace bar pivoted to the main frame side

foldable thereagainst and adapted to engage the leg bar.

23. In a convertible lounge bed the combination with a main body frame having at its side a hinged extension section, adapted to have a vertical position above the seat level, and to be swung outwardly to a horizontal position as a shelf, of a leg-bar pivoted to the upper part of the extension-section, a brace-bar pivoted to a lower part of the main frame side and adapted to engage the leg bar, said bars being foldable sidewise against the parts to which they are pivoted, one endwise overlapping the other, and means for confining them in their folded and overlapped relations.

24. In a convertible lounge bed the combination with a main body frame having at its side a hinged extension section, adapted to have a vertical position above the seat level, and to be swung outwardly to a horizontal position as a shelf, and said extension having an outwardly extending ledge at its upper edge, of a leg-bar pivoted to the upper part of the extension-section adapted to be swung angularly thereto, and to have a limiting engagement against said ledge, a brace-bar pivoted to a lower part of the main frame side and adapted to engage the leg bar, said bars being foldable sidewise against the parts to which they are pivoted, having their extremities of reduced thickness, one endwise overlapping the other, to constitute a continuous panel, and means for confining them in their folded and overlapped relations.

Signed by me at Springfield, Mass., in presence of two subscribing witnesses.

CHARLES F. PERCIVAL.

Witnesses:

G. R. DRISCOLL,  
WM. S. BELLWS.