No. 789,903. PATENTED MAY 16, 1905.

C. L. FENNER.

COMBINATION BED AND COUCH.

APPLICATION FILED OCT. 3, 1904.

2 SHEETS—SHEET 1.

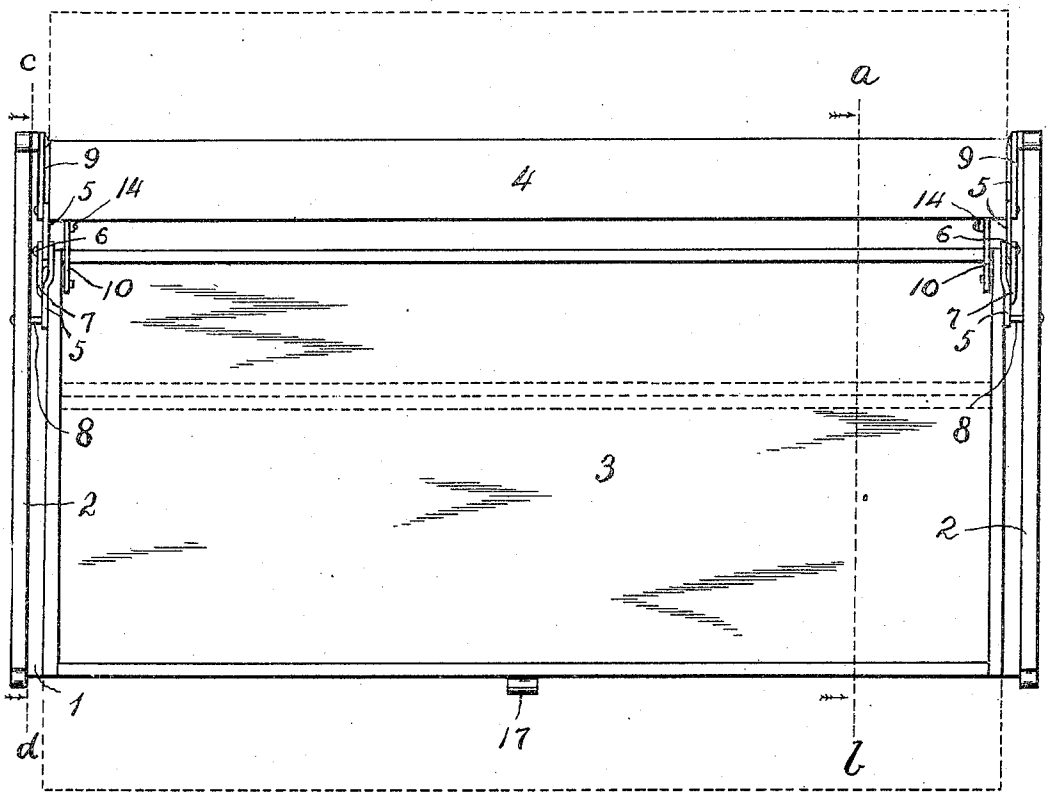


Fig 1

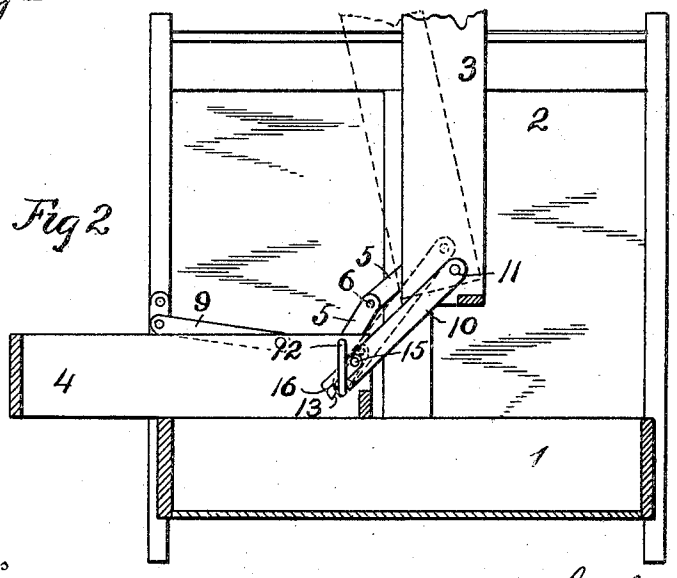


Fig 2

Witnesses

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Inventor

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His Attorney

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2 SHEETS—SHEET 2.

Fig 3

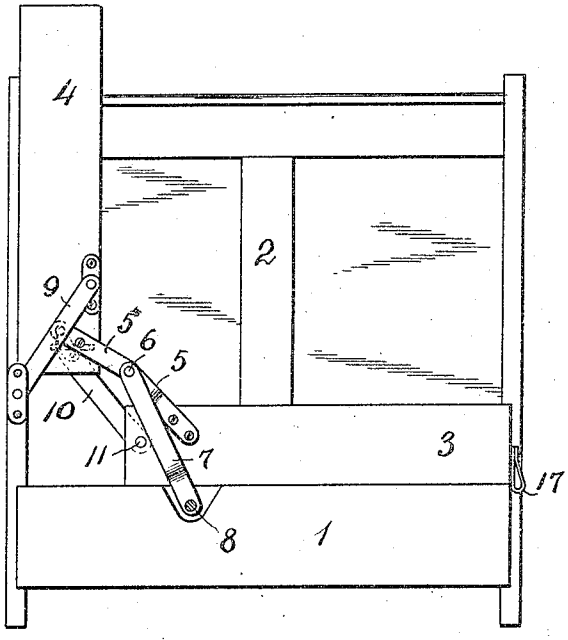
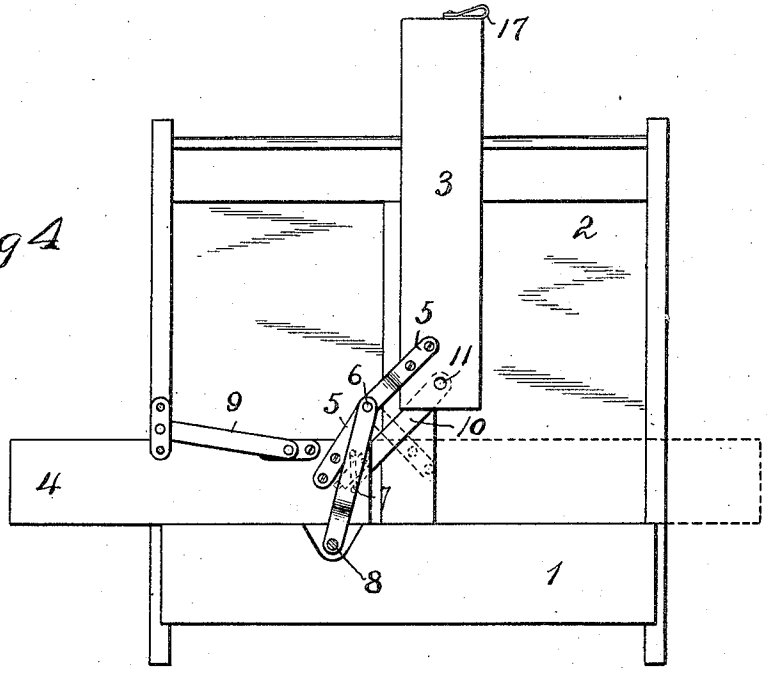


Fig 4

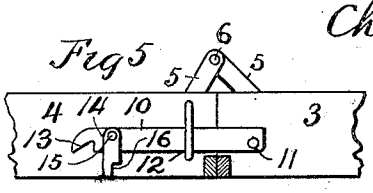


Witnesses

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Fig 5



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PHOTO-LITHOGRAPHED BY SACKETT & WILHELMS LITHO. & PTG. CO. NEW YORK.

No. 789,903. Patented May 16, 1905.

UNITED STATES PATENT OFFICE.

CHARLES L. FENNER, OF KANSAS CITY, MISSOURI, ASSIGNOR TO VALETTE K. SAMMONS, OF KANSAS CITY, MISSOURI.

COMBINATION BED AND COUCH.

SPECIFICATION forming part of Letters Patent No. 789,903, dated May 16, 1905.

Application filed October 3, 1904. Serial No. 226,976.

To all whom it may concern:

Be it known that I, CHARLES L. FENNER, a citizen of the United States, residing in Kansas City, in the county of Jackson and State of Missouri, have invented a new and useful Improvement in Combination Beds and Couches, of which the following is a specification, reference being had therein to the accompanying drawings, forming a part thereof.

My invention relates to improvements in combination beds and couches.

It relates particularly to couches of the well-known Davenport style, in which the back and seat may be positioned to form, with the supporting-frame, a bed.

The object of my invention is to provide a construction by which the back and seat when arranged to form a bed will be automatically disposed in a symmetrical position upon opposite sides of the medial line of the bed-frame.

A further object of my invention is to provide a construction by which the couch may be converted into a bed by manipulation of the parts from the side of the couch opposite the wall, thus avoiding the moving of the couch from the wall for the purpose of permitting the operator to pass behind the couch and effect the conversion.

The peculiarities of my invention are hereinafter fully described and claimed.

In the accompanying drawings, illustrative of my invention, Figure 1 is a top view showing in solid lines the parts arranged to form the couch, the dotted lines representing the positions of the parts when disposed to form the bed. Fig. 2 is a vertical sectional view taken on the dotted line *a b* of Fig. 1, the back and seat members having been swung to a position in which the back member is horizontally disposed and the seat member arranged at right angles thereto preparatory to releasing the locking mechanism and swinging the seat to the horizontal position. In dotted lines are shown the positions of the parts when the seat is swung so as to release the locking mechanism. Fig. 3 is a vertical sectional view taken on the dotted line *c d* of Fig. 1. Fig. 4 is a vertical sectional view taken on the dotted line *c d* of Fig. 1, the parts being represented in solid lines in the positions represented in Fig. 2, the dotted lines representing the positions of the parts after the seat member has been swung to the horizontal position. Fig. 5 is an end elevation view of one of the locking devices and parts connected therewith in the positions occupied by them when the seat and back members are in alinement with each other and in the horizontal position.

Similar characters of reference denote similar parts.

The bed-frame comprises a base 1, preferably an open-top horizontal box, to the ends of which are secured, respectively, the vertical end members 2.

3 and 4 denote, respectively, the seat and back members, each comprising, preferably, a rectangular frame, which may be upholstered in the ordinary manner. The ends of the seat and back members are provided each at the side adjacent the opposite member with arms 5, preferably rigidly connected to their respective members and hinged to each other, respectively, by pintle-pins 6. Two rocker-arms 7 are pivotally mounted at their lower ends on the end members 2 of the bed-frame by means of the transverse bolts 8, secured, respectively, to said end members. The upper ends of the rocker-arms 7 are pivotally connected to the arms 5 by means of the bolts 6, respectively, and thus form a swinging support for the seat and back members 3 and 4. The lateral swinging of the rocker-arms 7 is automatically controlled by means of two arms or guides 9, pivoted each at one end to the adjacent end 2 of the bed-frame and pivoted at its other end to the adjacent end of the back member. The means for releasably locking the back and seat members in a position at right angles to each other comprises the following parts: Two bars 10 are pivotally mounted, respectively, on the bolts 11, secured in the respective ends of the seat member 3, said bars 10 being positioned, preferably, on the inner sides of the frame forming the seat member and having their free ends slidably mounted, respectively, in the catches, preferably staples 12, secured, respectively, one at each end on the inner side

of the frame forming the back member 4. The lower side of the free end of each bar 10 is provided with a notch 13, adapted to receive the lower arm of the staple 12 when the parts are positioned as shown in Figs. 2 and 4, thus preventing the swinging of the back and seat members in alinement with each other and causing synchronous rotation of both members when either the back or seat member is rotated on the rocker-arms 7. Two lifting-dogs 14 are pivotally connected, respectively, by means of the transverse pins 15, to the sides of the bars 10 at points above a straight line connecting, respectively, the notches 13 and bolts 11. The free end of each dog 14 is provided on its under side with a notch 16, disposed slightly nearer the outer end of the adjacent bar 10 than the notch 13. When in the position shown in Fig. 2 in solid lines, the dogs 14 are positioned with the notches 16 out of engagement with the staples 12. To release the seat member and swing it to the horizontal position, the seat 3 is swung to the position shown in dotted lines in Fig. 2, thus withdrawing the dog 14, with the bars 10, until the notches 16 engage the staples 12. If the seat member 3 be now moved to the right as viewed in Fig. 2, the dogs 14, engaging with the staples 12, will swing the bars 10 at their free ends upwardly, thus permitting the notched ends of said bars 10 to move past the staples 12, allowing the seat to be moved to the horizontal position to form, with the back 4, the bed. On the outer edge, near the middle of the seat member 3, is provided a loop 17, of any suitable material, by means of which the back and seat members may be moved to the positions desired.

When it is desired to arrange the couch in the form of a bed, the parts being positioned as shown in Figs. 1 and 3, the operator grasps the loop 17 and swings the seat member to the vertical position, as shown in Fig. 4, at the same time causing rotation of the back 4 through the intermediacy of the arms 10, staples 12, arms 5, and pins 6. When the parts are thus swung, the arms 9, being pivoted to the ends 2 and the back 4, will swing the rocker-arms 7 laterally to the position shown in Fig. 4, thus positioning the back and seat members upon opposite sides, respectively, of the medial line of the bed-frame and disposing said members symmetrically relative to the bed-frame. The seat member 3 may then be moved to release the locking devices, as already described, after which it may be swung so as to lie flatwise on the base 1. With the parts so positioned the two members forming the bed will project laterally the same distance from the sides of the base. It will thus be seen that by means of the arms 9 and the swinging support comprising the rocker-arms 7 the bed and seat members may be automatically positioned to form a bed the two halves of which will lie symmetrically upon the bed-frame, and the manipulation for converting the bed into a couch, or vice versa, may be performed by the operator when occupying a single position and without necessitating his withdrawing the bed from the wall.

Various modifications of my invention may be resorted to without departing from its spirit.

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

1. In a combined bed and couch, the combination with the bed-frame, of a laterally-movable support pivoted to the bed-frame, a seat member and a back member pivotally connected together and to said support, and an equalizing member pivoted to the bed-frame and to one of said members.

2. In a combined bed and couch, the combination with the bed-frame, of two supporting members pivoted to the bed-frame, a seat member and a back member pivotally connected to each other and to said supporting members, and movable to and fro therewith, and means by which said supporting members are laterally swung when the seat and back members are swung on said supporting members.

3. In a combined bed and couch, the combination with the bed-frame, of two supporting members pivoted to the bed-frame, a seat member and a back member pivotally connected to each other and to said supporting members, and movable to and fro therewith, and an equalizing member pivoted to said bed-frame and to one of said seat and back members.

4. In a combined bed and couch, the combination with the bed-frame, of two rocker-arms pivoted at their lower ends to the bed-frame, a seat member and a back member pivotally connected to each other and to the upper ends respectively of the said bars, and two equalizing-arms pivoted respectively to the bed-frame and to one of said seat and back members.

5. In a combined bed and couch, the combination with the bed-frame, of a laterally-movable support pivoted to the bed-frame, a seat member and a back member pivoted to said support and pivoted to each other so as to swing from a position at right angles to each other to a position in the same plane with each other, means for releasably locking the seat and back members in the position at right angles to each other, and means for laterally swinging said support when the seat and back members are swung on said support.

6. In a combined bed and couch, the combination with the bed-frame, of the seat and back members pivoted to the frame so as to swing laterally and rotate thereon, and hinged to each other so as to be swung from a position in alinement with each other to a position at

right angles to each other, means for releasably locking said members in the right-angled position, and means connected with one of said members and the bed-frame by which the seat and back members are laterally swung when they are rotated.

7. In a combined bed and couch, the combination with the bed-frame comprising a base and ends, of two rocker-arms pivoted to said frame, the seat and back members pivoted to each other and to said rocker-arms respectively and movable from a position in alinement with each other to a position at right angles to each other, releasable locking means for holding said members in the right-angled position, and an arm pivoted to one of said members and to said frame so as to swing said members laterally when they are swung on the rocker-arms.

8. In a combined bed and couch, the combination with the bed-frame, of rocker-arms pivoted at their lower ends to the bed-frame, the back and seat members, each having arms pivoted to said rocker-arms and to the arms of the opposite member respectively, and one or more arms pivoted to the bed-frame and to one of said seat and back members so as to control the movement of the rocker-arms when said members are swung thereon.

9. In a combined bed and couch, the combination with the bed-frame of rocker-arms pivoted at their lower ends to the bed-frame, the seat and back members each having arms pivoted to said rocker-arms and to the arms of the opposite member respectively, releasable locking means for holding said members in a position normally at right angles to each other, and one or more arms pivoted to the bed-frame and to one of said members so as to control the movement of the rocker-arms when said seat and back members are both swung on the rocker-arms.

10. In a combined bed and couch, the combination with the bed-frame, of a swinging support mounted thereon, the back and seat members both rotatively mounted on said support independently of each other, a releasable means for locking said members in a position substantially at right angles to each other, and when released permitting said members to be swung in alinement with each other, and means connecting with one of said members and the bed-frame for controlling the swinging of said support.

11. In a combined bed and couch, the combination with the bed-frame, of a swinging support mounted thereon, the seat and back members independently rotatable on said support, releasable means for locking said members in a position substantially at right angles to each other but permitting when released, their disposal in alinement with each other, and means connected with the bed-frame for swinging said support to a position in which the said members will be disposed respectively on opposite sides of the medial line of the bed-frame.

12. In a combined bed and couch, the combination with the bed-frame, of a swinging support mounted thereon, the seat and back members independently rotatable on said support, releasable means for locking said members in a position substantially at right angles to each other but permitting, when released, their disposal in alinement with each other, and a controlling-arm mounted on the bed-frame and connected with one of said members for swinging said support.

13. In a combined bed and couch, the combination with the bed-frame, of a swinging support mounted thereon, the seat and back members independently rotatable on said support, releasable means for locking said members in a position substantially at right angles to each other, and an arm pivoted to the bed-frame and to one of said members.

14. In a combined bed and couch, the combination with the bed-frame, of two swinging arms mounted on the bed-frame, the back and seat members independently rotatable on said swinging arms, releasable means for locking said members in a position substantially at right angles to each other but permitting, when released, their disposal in alinement with each other, and means connected with the bed-frame for swinging said arms when said members are rotated in the locked position upon said arms.

15. In a combined bed and couch, the combination with the bed-frame, of two swinging arms mounted thereon, the seat and back members independently rotatable on said swinging arms, releasable means for locking said members in a position substantially at right angles to each other, but permitting, when released, their disposal in alinement with each other, and a guide mounted on the bed-frame and engaging one of said members for swinging said swinging arms when said members are rotated in the locked position on said arms.

16. In a combined bed and couch, the combination with the bed-frame, of two swinging arms mounted thereon, the seat and back members independently rotatable on said arms, releasable means for locking said members in a position substantially at right angles to each other, but permitting when released, their disposal in alinement with each other, and an arm pivoted to the bed-frame and to one of said members.

17. In a combined bed and couch, the combination with the bed-frame, of a swinging support mounted thereon, the seat and back members independently rotatable on said support, means controlled by the rotation of one of said members for laterally swinging said support, a catch carried by one of said members, an arm pivoted to the other member and provided with means for engaging with said catch when either member has been rotated

on the swinging support to a certain position, and a device carried by said arm for releasing said arm from the catch when the members are moved to the proper position.

18. In a combined bed and couch, the combination with the bed-frame, of a swinging support mounted thereon, the seat and back members pivoted thereto and to each other, means controlled by the swinging of one member on said support for swinging said support, an arm pivoted to one member, a catch on the other member adapted to be engaged by said arm when either member has been swung to a certain position relative to the other member, and a dog mounted on said arm and adapted to engage said catch and disengage therefrom said arm when either of said members has been moved to the proper position relative to the other.

19. In a combined bed and couch, the combination with the bed-frame, of a swinging support mounted thereon, the seat and back members pivotally connected to said support and to each other, a catch on one member, an arm pivoted to the other member and provided with a notch adapted to receive said catch when the members are moved relative to each other to a certain position, and a dog pivoted to said arm and provided with a notch adapted to receive said catch and disengage the arm therefrom when the members are swung to the proper position.

20. In a combined bed and couch, the combination with the bed-frame, of a swinging support mounted thereon, the seat and back members pivotally connected with said swinging support and with each other, means for swinging said support when one of said members is swung on the support, a staple mounted on one member, an arm pivoted to the other member and slidably mounted in said staple and provided with a notch adapted to receive said staple for locking said members relatively in a given position, and a lifting device carried by said arm and adapted to engage the staple and lift the arm free from engagement therewith when the members are properly positioned.

21. In a combined bed and couch, the combination with the bed-frame, of a swinging support mounted thereon, the seat and back members pivotally connected with said support and each other, an arm pivoted to the bed-frame and to one of said members and positioned so as to swing the said support when the member to which the arm is pivoted is swung on the support, a staple mounted on one of said members, an arm slidably mounted in said staple and having a notch for engaging the staple, a dog pivoted to the notched arm and provided with a notch for engaging the staple so as to disengage the arm carrying it from the staple upon proper relative movement of said members.

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

CHARLES L. FENNER.

Witnesses:
WARREN D. HOUSE,
HENRY F. ROSE.