No. 734,659. PATENTED JULY 28, 1903.

H. M. BEDELL.

BOX COUCH.

APPLICATION FILED MAR. 6, 1903.

NO MODEL. 2 SHEETS—SHEET 1.

Fig. 1.

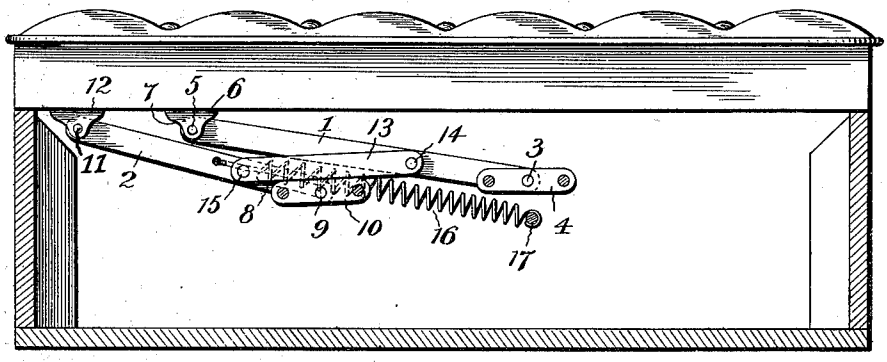
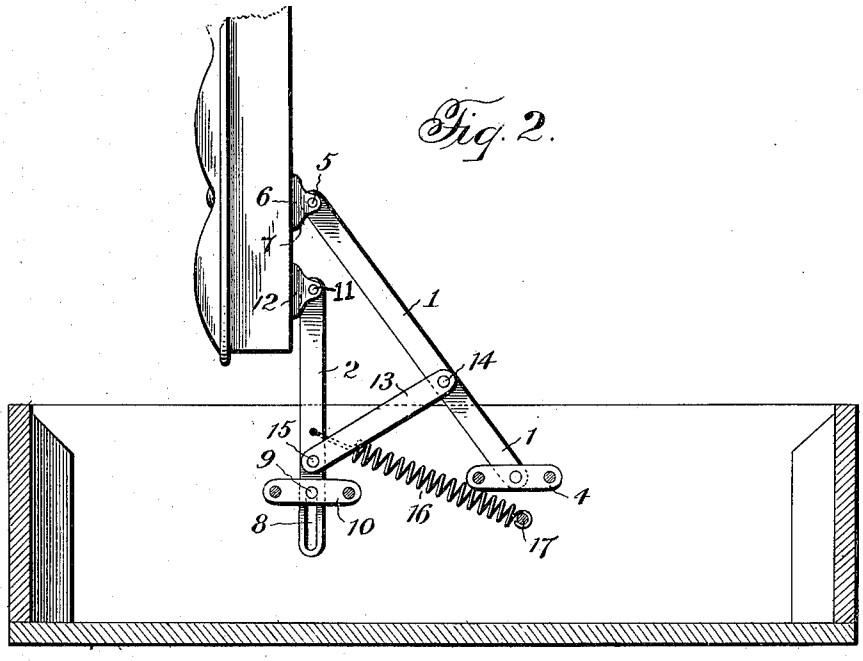


Fig. 2.



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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

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NO MODEL. 2 SHEETS—SHEET 2.

Fig. 3.

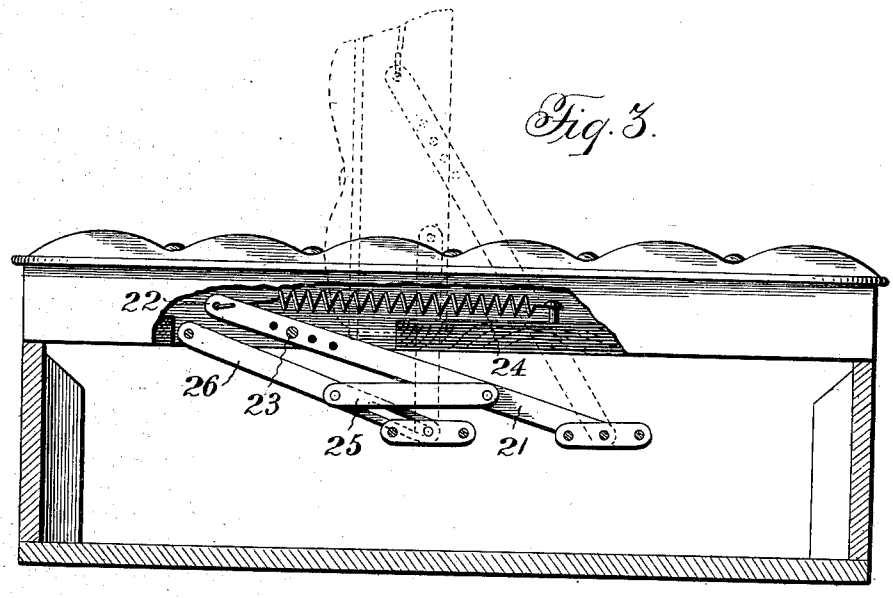


Fig. 4.

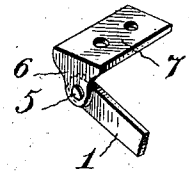


Fig. 5.

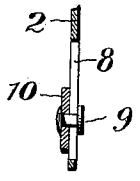
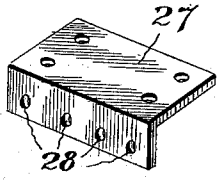


Fig. 6.



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No. 734,659. Patented July 28, 1903.

UNITED STATES PATENT OFFICE.

HARRY M. BEDELL, OF WASHINGTON, DISTRICT OF COLUMBIA.

BOX-COUCH.

SPECIFICATION forming part of Letters Patent No. 734,659, dated July 28, 1903.

Application filed March 6, 1903. Serial No. 146,459. (No model.)

To all whom it may concern:

Be it known that I, HARRY M. BEDELL, a citizen of the United States, residing at Washington, District of Columbia, have invented certain new and useful Improvements in Box-Couches, of which the following is a specification.

The invention relates to improvements in box-couches.

The object of the present invention is to improve the construction of box-couches, more especially the mechanism employed for hinging the lid or cover to the body or base of the couch, and to provide a simple, inexpensive, and efficient device of great strength and durability adapted to be readily applied to the base and lid of a box-couch and capable of enabling the lid to be easily raised without moving the base of the couch from the wall, against which the same may be placed.

A further object of the invention is to provide a construction which will permit the top of the couch when open to assume a perpendicular position, to arrange it entirely out of the way, and to afford complete access to the interior of the couch.

The invention consists in the novel construction and arrangement of parts hereinafter described and shown, and particularly pointed out in the claims hereto appended.

In the drawings, Figure 1 is a vertical sectional view of a box-couch provided with lid-raising mechanism constructed in accordance with this invention, the couch being closed. Fig. 2 is a similar view, the couch being open. Fig. 3 is a vertical sectional view illustrating a modification of the invention. Fig. 4 is a detail sectional view illustrating the manner of pivoting the bars to the top of the couch. Fig. 5 is a similar view illustrating the manner of slidably connecting the rear bar with the body or base of the couch. Fig. 6 is a detail view of the continuous angle-plate.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 and 2 designate front and rear bars or members constructed of steel or other suitable material and arranged at an inclination when the couch is closed, as clearly illustrated in Fig. 1 of the drawings. The front bar 1, which is located in advance and above the rear bar, is pivoted at its lower or front end to the base or body of the couch, at the inner face of the end wall thereof, by means of a rivet 3, mounted upon an attachment-plate 4, which is screwed or otherwise secured to the end of the couch; but any other suitable means may be employed for pivoting the front bar to the base or body of the couch. The upper or rear end of the front bar is pivoted to the top of the couch, a short distance in advance of the rear edge thereof, by means of a rivet 5 or other suitable fastening device which passes through the bar 1 and a perforated ear 6 of an angle-plate or bracket 7, suitably secured to the top of the couch.

The rear bar 2 is provided at its lower portion with a longitudinal slot 8, receiving a pivot or stud 9 of the body of the couch, whereby when the lid is raised the same is permitted to move forward to clear the wall and obviate the necessity of pulling the base or body of the couch away from the wall to raise the lid. The stud or pivot 9 is mounted on an attachment-plate 10, which is suitably secured to the end of the couch, or a simple bolt may be used. The upper end of the rear bar is pivoted to the top by a rivet 11 or other suitable fastening device passing through the rear bar and through a perforated ear of an angle-plate or bracket 12, which is secured to the top of the couch.

The bars 1 and 2 are connected by a link 13, pivoted at its front end 14 to the front bar 1 at a point between the center and the lower end thereof and similarly connected at its rear end 15 to the rear bar at a point above the slot 8.

The top of the couch is partially counterbalanced by a coiled spring 16, arranged at an inclination and adjustably secured at its front end by a screw 17 or other suitable fastening device to the end of the couch and engaged at its rear end by a perforation of the rear bar. By adjustably securing the front end of the spring to the couch the tension of the spring may be varied to secure the desired counterbalancing action of the same and to tighten the spring should it stretch and become loose through use.

When the top or lid is raised, the rear bar slides forward on the stud or pivot 9 and at

the same time swings upward to a perpendicular position, as illustrated in Fig. 2 of the drawings. The front bar is also swung upward by this movement and the link is raised to a position approximately perpendicular to the front bar. The top of the couch when open is arranged in an upright or perpendicular position, being supported in such position by the bars and the link which brace and support it. The top is securely held in an upright position, the front bar forming an inclined brace to prevent the top from moving accidentally forward or backward while in an open position. The rigid support formed by the bars and the link is broken in the closing movement of the top of the couch by swinging the upper portion of the top forward on the upper pivot of the front bar, thereby carrying the rear bar backward from its perpendicular position and permitting the couch to close. By arranging the top of the couch in a perpendicular position when opened it is entirely out of the way and free access is afforded to the interior of the base or body of the couch.

In Fig. 3 of the drawings is represented a modification of the invention in which the front bar 21 is provided at its top with an arm or extension 22, projecting above the upper pivot 23 into the top of the couch and connected with the rear end of a coiled spring 24. The spring 24, which is secured at its front end to the top of the couch, partlally counterbalances and assists the opening movement of the same.

The front bar is connected by a link 25 with a rear bar 26, constructed and operating as heretofore described.

In the modified form of the invention the bars or members are located in a recess in the top of the couch and are pivoted by bolts. Instead of employing a pair of brackets or angle-plates a continuous angle-plate 27 may be employed, and this angle-plate will be provided with a series of perforations 28 to permit the pivots to be adjusted.

It will be understood that various changes within the scope of the appended claims may be made without departing from the spirit or sacrificing any of the advantages of the invention.

What I claim is—

1. In a device of the class described, the combination with a box-couch, of a pair of bars or members pivotally connected with the base and top of the couch, one of the bars or members having a limited slidable movement, means for connecting the bars or members at points between the points of attachment of the said bars or members to the base and top of the couch and a spring connected with one of the bars or members, substantially as described.

2. In a device of the class described, the combination with a box-couch of a pair of bars or members pivotally connected with the base and top of the couch, one of the bars or members having a limited slidable movement, a link connecting the bars or members between the ends thereof, and a spring connected with one of the bars or members, substantially as described.

3. In a device of the class described, the combination with a box-couch, of a pair of bars or members pivotally connected with the base and top of the couch, one of the bars or members being slidable on the base, a link pivoted to the bars or members between the ends thereof, and a spring connected with one of the bars or members, substantially as described.

4. In a device of the class described, the combination with a box-couch, of a pair of bars or members pivotally connected with the base and top of the couch, one of the bars or members being slidable on the base, and the other bar or member being provided with an arm or extension, means for connecting the bars or members at points between the points of attachment of the said bars or members with the base and top of the couch and a spring connected with the arm or extension and located within the top of the couch, substantially as described.

5. In a device of the class described, the combination with a box-couch, of a pair of bars or members pivotally connected with the base and top of the couch, one of the bars or members having a limited slidable movement, means for connecting the bars or members, at points between the points of attachment of the said bars or members to the top and base of the couch and a counterbalancing device, substantially as described.

6. In a device of the class described, the combination with a box-couch, of a pair of bars or members pivotally connected with the base and the top of the couch, one of the bars or members being provided with a slot, a pivot mounted on the base of the couch and arranged in the said slot, means for connecting the bars or members at points between the points of attachment of the said bars or members to the base and top of the couch and a spring connected with one of the bars or members, substantially as described.

7. In a device of the class described, the combination with a box-couch, of a rear bar or member pivotally connected to the top and base of the couch and slidable on one of such parts, a front bar or member pivoted to the top and base of the couch, means for connecting the bars or members between their pivotal points, and a counterbalancing device substantially as described.

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

HARRY M. BEDELL.

Witnesses:
JAMES A. SMITH,
GEO. L. SMITHSON.