No. 676,215. Patented June 11, 1901.

G. E. BEDELL.

BOX COUCH.

(Application filed Apr. 4, 1898.)

(No Model.)

Fig. 1.

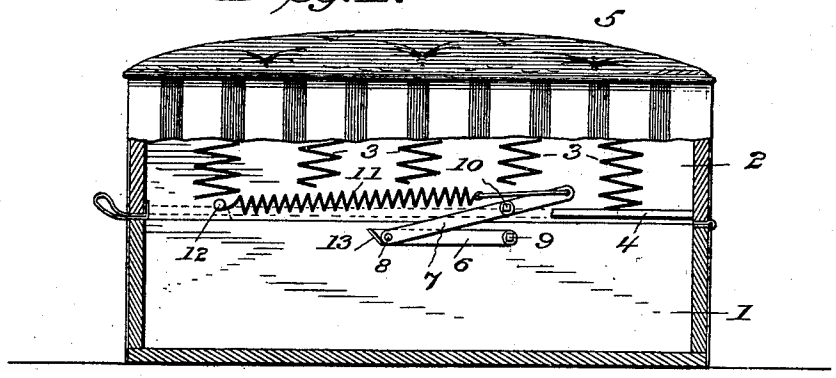


Fig. 3.

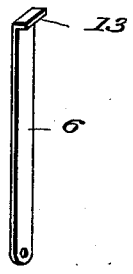


Fig. 2.

Witnesses
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UNITED STATES PATENT OFFICE.

GEORGE E. BEDELL, OF WASHINGTON, DISTRICT OF COLUMBIA, ASSIGNOR OF FIVE-EIGHTHS TO ARTHUR C. MOSES, OF SAME PLACE.

BOX-COUCH.

SPECIFICATION forming part of Letters Patent No. 676,215, dated June 11, 1901.

Application filed April 4, 1898. Serial No. 676,272. (No model.)

To all whom it may concern:

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

My invention relates to means for raising or aiding in raising the lids of box-couches, and has for its object to provide certain improvements in the spring mechanism heretofore in use for such purpose, whereby the operative parts thereof will be carried by the upholstered lid of the couch, thus removing all danger of contact of said mechanism with articles deposited in the box portion of said couch. In mechanisms of this character heretofore in use the construction and arrangement have been such that the spring tension employed is exerted in such direction when the lid is closed that a direct lifting strain will not be imparted to said lid, though when said lid has been partly opened the line of application of said lifting strain will be shifted to more directly operate on said lid in a lifting direction, the result being that although the spring-power employed would be sufficient if directly applied to overcome the dead-weight of the lid when closed still by reason of its line of application when in said position it will not of itself raise said lid and will only come into full operative position when said lid has been partly lifted manually. My invention is designed to retain all the advantages of this form of construction and at the same time to so locate and arrange the operative mechanism that the lifting-lever will contact with the side of the couch-bottom at but a single point and that very near the top of said couch-bottom, while the operating-spring will be carried by and attached to the couch-lid and located within the upholstered portion thereof.

In the drawings accompanying this specification, Figure 1 is a vertical transverse sectional view of a box-couch, showing my improved construction of spring mechanism, the lid being shown closed. Fig. 2 is a similar view, the lid being shown open. Fig. 3 is a detail perspective view of one arm of the lifting-lever.

Similar numerals of reference denote corresponding parts in the several views.

In the said drawings the numeral 1 denotes the couch-bottom, and 2 the couch-lid, the latter being provided with the usual springs 3, supported by transverse slats 4 and forming with the usual tufted top surface 5 the upholstered feature.

The lifting mechanism consists of a lever, in this instance formed of two arms 6 and 7, pivoted together at 8, the arm 6 being also pivoted at its other end at 9 to the side of the couch-bottom close to its upper edge, while the arm 7 is pivoted intermediate its length at 10 to the side of the lid 2. A coiled spring 11, attached at one end at 12 to the side of the couch-lid, near the front thereof, is attached at its other end to the free end of the arm 7, the relative arrangement of the parts being such that the spring 11 lies at all times entirely within the couch-lid 2 and when said lid is closed is stretched to its full tension, though it will be observed that by reason of the fact that said spring and the arm 7 lie almost parallel when the lid is closed the full strength of said spring will not be exerted to rotate the arm 7 on its pivot, and thus lift the couch-lid, but will be expended for the most part in a direct pull against said pivot-point 10. When, however, the lid is partly lifted, the consequent partial rotation of the arm 7 on its pivot 10 will bring the line of power application of the spring 11 above said pivot 10, and thus act to further rotate said arm on its pivot, the result being that as the arms 6 and 7 are drawn more nearly parallel the lid 2 will be lifted accordingly. The movement of the free end of arm 7 being toward the point 12, the tension of spring 11 is decreased as the two approach, while the movement of the arms 6 and 7 toward a parallel position is limited by the angularly-bent end 13 of arm 6 coming in contact with the side of arm 7, thus affording a stop for the upward movement of the couch-lid. It will be observed that in both of these positions the operating-spring lies entirely within the couch-lid and that the only portion of the mechanism that at any time lies within the couch-bottom is the lifting-lever, which even when the lid is closed lies only slightly below

the top edge of the couch-bottom. The advantage of this arrangement is that all danger of the contents of the couch-bottom being caught and torn by the lifting mechanism is obviated, this having been found to be a serious defect in the constructions heretofore employed.

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

1. In a box-couch, the combination with the body portion and the lid thereof, of lid-raising mechanism connecting said body portion and lid and having its actuating means located within said lid, substantially as set forth.

2. In a box-couch, the combination with the body portion and the lid thereof, of lid-raising mechanism comprising a lever formed in two parts and connecting said body portion and lid, and a spring located within said lid and connected to said lever, substantially as set forth.

3. In a box-couch, the combination with the body portion, and the lid thereof, of a lever formed in two parts and fulcrumed in said body portion and contacting with said lid, and a spring carried by said lid and engaged with said lever in such manner as to exert its tension on said lever to move the same on its fulcrum and raise the lid, substantially as set forth.

4. In a box-couch, the combination with the body portion, and the lid thereof, of a lever formed in two parts and fulcrumed in said body portion and contacting with said lid intermediate its length, and a spring carried by said lid and attached to the free end of said lever, substantially as set forth.

5. In a box-couch, the combination with the body portion, and the lid thereof, of a lever formed in two parts and fulcrumed in said body portion and contacting with said lid intermediate its length, and a spring carried by said lid and attached to the free end of said lever, said spring and lever lying substantially parallel when said lid is closed and adapted to approach a position at a right angle to each other as the lid is opened, substantially as set forth.

6. In a box-couch, the combination with the body portion, and the lid thereof, of a lever consisting of two arms pivoted together, one arm being pivoted to the couch-bottom at its other end and the other arm being pivoted to the lid intermediate its length, and a spring attached to the lid and to the free end of the upper arm in such manner that said arms and spring lie substantially parallel when said lid is closed and approach a position at a right angle to each other as said lid is opened, substantially as set forth.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

GEO. E. BEDELL.

Witnesses:
PHILIP F. LARNER,
WM. A. GOMEWELL.