(No Model.)

J. LEHNBEUTER.

AUTOMATIC LIFT FOR SHOW CASE COVERS.

No. 425,891. Patented Apr. 15, 1890.

Fig. I.

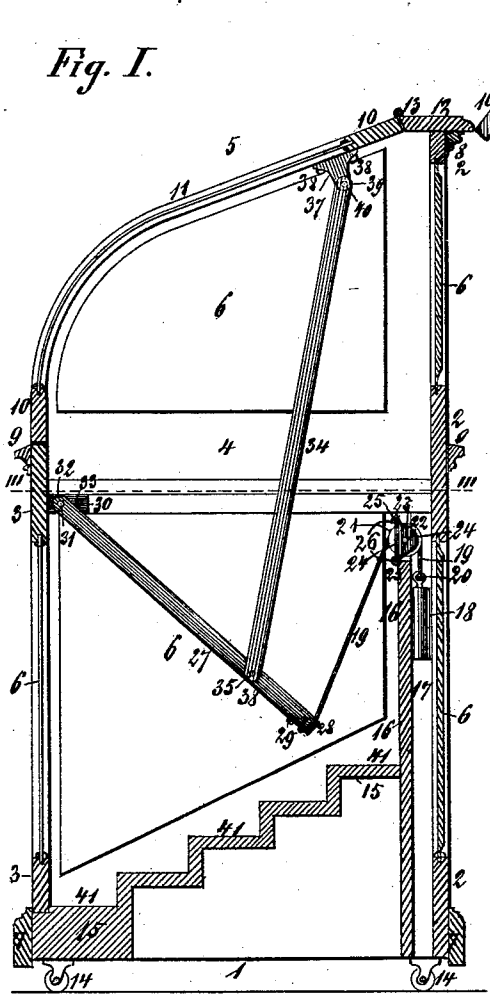


Fig. II.

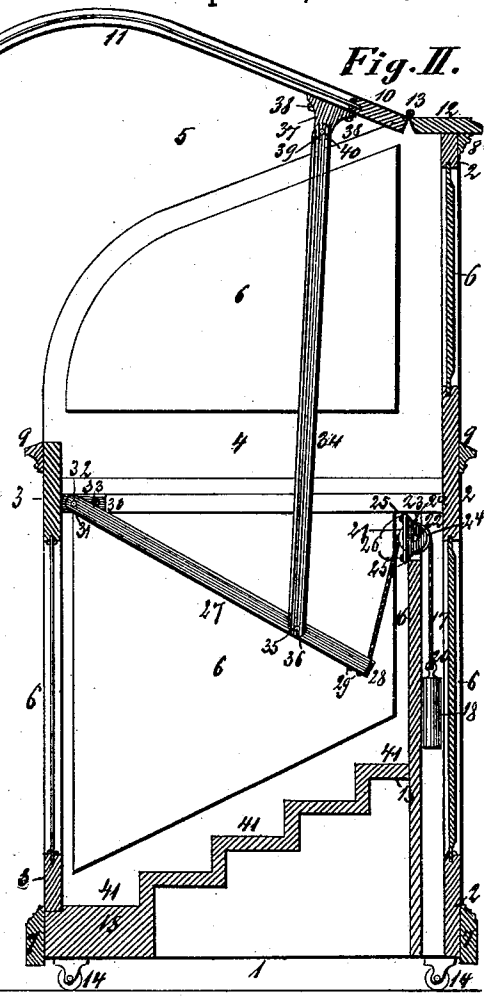
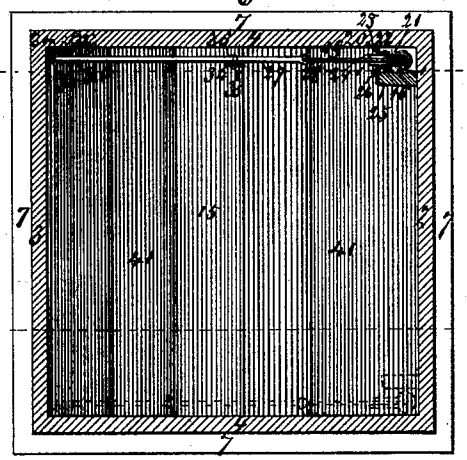


Fig. III



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JOSEPH LEHNBEUTER, OF ST. LOUIS, MISSOURI.

AUTOMATIC LIFT FOR SHOW-CASE COVERS.

SPECIFICATION forming part of Letters Patent No. 425,891, dated April 15, 1890.

Application filed September 27, 1889. Serial No. 325,263. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH LEHNBEUTER, of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Automatic Lifts for Show-Case Covers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to devices for effecting an automatic balance-lift for the covers of show-cases, which holds said cover in equipoise at any desired elevation; and the invention consists in features of novelty hereinafter fully described, and pointed out in the claims.

Figure I is a vertical section taken on line I II, Fig. III, and shows the arrangement of the pivoted link-balance devices with the cover closed. Fig. II is a like view taken on the same line, with the cover partially elevated; and Fig. III is a horizontal section taken on line III III, Fig. I, and shows the position of the devices for the automatic lift of the cover at the end of the case.

Referring to the drawings, 1 represents the bottom of the case; 2, the back frame, 3 the front frame, and 4 the side frames, of the show-case 5.

6 represents the panels that are inclosed in said frames, which panels are preferably of bevel glass.

7 represents the base bracket-frame that surrounds the bottom of the case.

8 is a bracket-strip attached externally to the top of the back frame of said case, and 9 is an intermediate bracket-frame that surrounds and strengthens the middle of the case as the base frame does the bottom.

10 represents the frame of the cover of the case, and 11 is the bowed panel which is inclosed in said frame, which, like the panels in the other frames of the case, is preferably of glass, for the threefold reason that said glass panels are ornamental, they admit light within the show-case for the better exhibit of the articles shown therein, and provide a view of said articles even when the case is closed. The frame of the cover is secured to the top back strip 12 by the hinges 13, said strip being securely attached to the top of the rear frame of the show-case.

14 are the casters on which the case is mounted, and 15 is the stepped platform or false bottom inside the case, for the support of umbrellas, canes, &c., which are thus stationed on raised steps or tiers 41, each succeeding step backward being elevated to a higher level than that in front of it, so as to exhibit said articles to the best advantage, respectively.

I will now describe the devices, which, conjunctively with a slight touch of the hand, automatically lift the cover of the show-case and hold it in equipoise at any elevation at which it is placed.

16 represents the boxing which incloses the well 17, in which the balance-weight 18 hangs pendent from the cord 19, which cord is secured by splicing or otherwise to the eyelet 20, that surmounts said weight and is integral therewith. The said cord runs over the pulley 21, whose journal-pin 22 has its bearings 23 in the journal-boxing 24, the flanges 25 of which journal-boxing are secured to the boxing 16 of the well in which the weight hangs by the screws 26. The fast end of the weight-cord 19, after passing over the pulley 21, is secured to the loose end of the pivotal lever 27 by passing between the forks 28 of its bifurcated end and being attached by screws or rivets 29 or otherwise to said lever. The upper pivotal end of said lever is secured to the bracket-block 30 by the pivot pin or screw 31, on which said lever has its hinge-bearing 32, the said pivot-screw, after passing through said bracket-blocks, having its screw-point seated in the side piece 4 of the case, the lever being thus held to the bracket-block and said bracket-block to the side piece, to which it is further secured by the screw 33.

34 represents a vertical pivotal fulcrum-link, the lower end of which is secured about one-quarter way from the lower end of the fulcrum-lever 27 by the pivot pin or screw 35, which passes through and is seated in the perforate bearing 36 in said link and lever.

37 represents a hanger-bracket that is secured beneath and to the frame of the cover of the case by the screws 38, and to which hanger-bracket the upper end of the fulcrum-lever 34 is pivotally secured by the pivot pin or screw 39, which passes through and is

seated in the perforate bearing 40 in said fulcrum-link and hanger-bracket.

The operation of the device is as follows: The system of links or levers being, as described, pivotally connected to the body of the case at one end and to the under side of the cover at the other, and the weight 18, which is a sufficient equipoise to balance the cover, being connected by the cord 19 with the loose end of the fulcrum-lever 27, the weight of the cover is so exactly balanced thereby that it requires but the slightest touch of the salesman to overcome the balance, and thus elevate or lower said cover, and it remains in the exact position—open, closed, or ajar—in which the salesman leaves it, open for the inspection of customers or closed to prevent the encroachment of dust, &c. It will be seen that when the lid is closed shut, as also when it is fully elevated to a vertical position beyond the medium elevation shown in Fig. II, the upper pivot of the fulcrum-link passes back of the center bearings of its pivotal attachment to the fulcrum-lever, and in consequence in both its extreme positions closed on the one hand and fully opened on the other the weight has an increased effect in holding the cover in the first case tightly closed, so as to prevent the inroads of dust, and in the latter case fully elevated to its vertical position out of interference with the inspecting customers or with the salesman who is waiting on them. At the same time, as heretofore stated, the cover is so nearly balanced by the weight that it will remain in any intermediate position in which it is placed by the salesman—as, for instance, as shown in a medium elevation in Fig. II.

I have shown and described one system of fulcrum pivotal automatic lifts at one end of the show-case, which is sufficient in short cases; but I do not confine myself to a single lift, for it is evident that the same system of automatic lift may be and preferably is in long show-cases duplicated at the other end of the case, as shown in broken lines in Fig. III.

I do not describe again the several parts of said second system of the fulcrum pivotal lift, for the several parts and the combined whole are exact duplicates of that of the coadjutant system at the other end of the show-case heretofore described.

I claim as my invention—

1. In a show-case, the combination of the body of the case, its hinged cover, the lever 27, pivotally hinged to the body of the show-case, the fulcrum-link 34, pivotally connected to the lever 27 and to said cover, the balance-weight 18, and the cord 19, that connects said weight to the loose end of the lever 27, the said lever, link, and balance-weight secured thereto being arranged as a coadjutant automatic lift of the cover of the case, substantially as and for the purpose set forth.

2. In a show-case, the combination of the body of the show-case, its hinged cover, the lever 27, the bracket-block 30, the pivot-screw 31, which screw pivotally secures said fulcrum-lever to the body of the case, the balance-weight 18, the weight-cord 19, that attaches said weight to said fulcrum-lever, the pulley-wheel 21, over which said cord runs, the fulcrum-link 34, the pivot screw or pin 35, that hinges said link to said lever, the hanger-bracket 37, secured to the cover of the case, and the pivot screw or pin that secures said link to said hanger arranged as a coadjutant automatic lift of the cover of the case, substantially as and for the purpose set forth.

3. In a show-case, the combination of the body of the show-case, the hinged cover of said case, the stepped platform in the bottom of said case, the pivoted fulcrum-lever 27, the balance-weight 18, the cord that connects said balance-weight to said lever, the pulley over which said cord works, the hanger-bracket 37, secured to said cover, and the link 34, said link being pivotally hinged to said hanger-bracket and said fulcrum-lever, arranged as coadjutant automatic lifts for said cover, substantially as and for the purpose set forth.

JOSEPH LEHNBEUTER.

In presence of—
BENJN. A. KNIGHT,
SAML. KNIGHT.