

O. R. MILKE.

HINGE.

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948,112.

Patented Feb. 1, 1910.

Fig. 1.

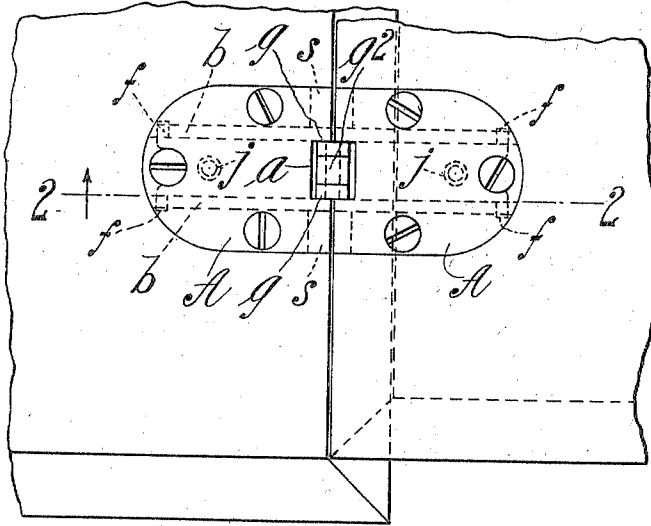


Fig. 2.

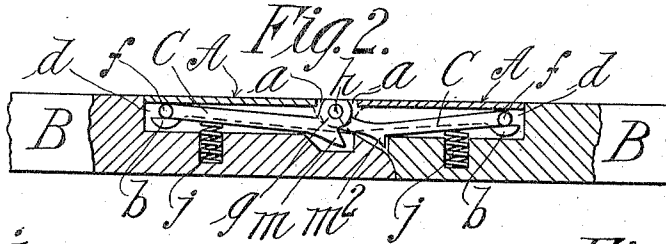


Fig. 3.

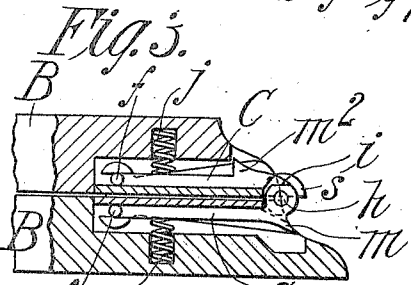


Fig. 4.

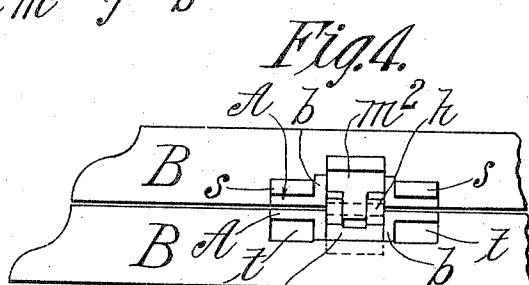


Fig. 5.

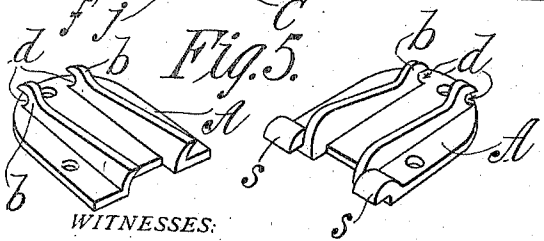
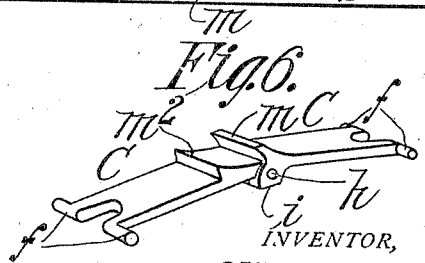


Fig. 6.



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HINGE.

948,112.

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To all whom it may concern:

Be it known that I, OTTO R. MILKE, a citizen of the United States of America, and resident of Holyoke, in the county of Hampden and State of Massachusetts, have invented certain new and useful Improvements in Hinges, of which the following is a full, clear, and exact description.

This invention relates to improvements in hinges and of a kind especially adapted for employment where the projection of hinge ear pieces or protuberances will be avoided at the junction of the hinged parts; but, on the other hand, whereby the surface at such hinged parts will be flush and continuous.

A hinge such as exemplified by this invention is especially desirable for use on sewing machine tables of a kind known as "drop top" tables, that is, tables constructed with a main top and a supplemental top hinged thereto, the sewing machine being mounted on a support within a large aperture in the main top and adapted, when the supplemental top is overturned, to lie horizontally on the main top to be automatically caused to descend into the said aperture and be concealed by the supplemental top.

In tables for sewing machines of the character just above referred to, and in many other tables having one top section hinged to another, it is very desirable that when the table top sections are in their extended relations, and in the same plane, there shall be no projection or obstruction above such plane to interfere with the free moving of fabrics on the table or to otherwise constitute an undesirable factor.

This invention consists in a hinge having parts in combination and arrangement substantially as hereinafter described in conjunction with the accompanying drawings and set forth in the claims.

In the drawings:—Figure 1 is a plan view showing my improved hinge as connecting the two parts or sections of a table top; Fig. 2 is a vertical sectional view on line 2—2, Fig. 1, with the parts in extended relations; Fig. 3 is a sectional view similar to Fig. 2, but showing the parts in folded-over relations; Fig. 4 is an edge view of Fig. 3; Fig. 5 is a perspective view of the pair of hinge plates inverted; Fig. 6 is a perspective view of the pair of pivotally connected link bars shown inverted.

In the drawings,—A A represent a pair or set of like hinge plates designed to be

sunk into mortises therefor in the table top sections or parts B B; which are to be hinge connected. The frame plates have opposed recesses *a a* within their matching edge portions, and they are provided at points suitably remote from their matching recessed edges with opposite depending lugs *b b* which have fulcrum recesses *d d* within their rear edges,—these recesses being most clearly shown in Fig. 5.

C C represent a pair of link bars having laterally extending trunnion-like lugs *f* at their outer or most separated ends which are engaged in the said fulcrum recesses; and these link bars have at their inner ends matching upstanding ear pieces or lugs *g g* and *g²*, united by the transverse pivot pin *h*. The combined bulk of the ear pieces is such as to substantially fill the said opposed recesses *a a* of the hinge plates, and their upper edges are flat, as shown at *i*, so as to constitute a surface continuation when the parts of the hinge are in the relations shown in Fig. 2, flush with the top of the frame plates.

The aforementioned lugs *b b*, which have the fulcrum recesses *d d* in the rear edges thereof,—are longitudinally continued in parallelism for the entire length of each frame plate so as to make a downwardly opening channel, the side walls of which constitute a guide for each link bar and strengthen the hinge construction as a whole.

j j represent spiral springs which are preferably provided for coaction with the link bars for exerting a pressure thereagainst to force them toward the hinge plates A.

m and *m²* represent lips or flanges projecting more or less transversely from the lower surfaces of the link bars and extending transversely across the entire widths thereof, adjacent their pivotally connected ears,—these members *m* and *m²* serving, when the hinge is doubled up as shown in Figs. 3 and 4, as guards to prevent the entrance of dirt into the channel-like openings in the hinges, which, in the absence of these guards, would be endwise open at times.

One of the hinge plates A, which is to be affixed in the leaf or part which is to be movable relatively to the stationary table top, is provided at its edge next to the adjacent hinge plate with one, or, preferably, a pair of hook-like lugs *s s* which when the hinged parts are opened in the relation shown in Figs. 1 and 2 will engage under the

edge portions of the stationary hinge plate at either side of the recesses therein for preventing any possibility of upward movement of the hinge connected leaf relatively to the table top even although a pressure from underneath might be exerted against the hinged leaf.

I claim:—

1. In a hinge, in combination, a pair of edgewise matching frame-plates having opposed recesses within their matching edge portions, a pair of link bars fulcrumed to the frame plates, having their inner ends pivotally united one to the other, and comprising means, adjacent their uniting pivot for substantially filling said opposed recesses, and constituting a surface continuation flush with the top of the frame plates.

2. In a hinge, in combination, a pair of edgewise matching frame-plates having opposed recesses within their matching edge portions, a pair of link bars fulcrumed to the frame plates, having their inner ends pivotally united, one to the other, comprising means, adjacent their uniting pivot for substantially filling said opposed recesses and constituting a surface continuation flush with the top of the frame plates, and springs, under the link bars, for forcing the latter toward the frame plates.

3. In a hinge, in combination, a pair of edgewise matching frame-plates having opposed recesses within their matching edge portions, a pair of link bars fulcrumed to the frame plates at points remote from the matching edges of the latter having at their inner ends matching ear pieces pivotally united, said ear pieces having a combined bulk to substantially fill said opposed recesses, and having their upper portions flat to constitute a surface continuation flush with the top of the frame plates.

4. In a hinge, in combination, a pair of edgewise matching frame plates having opposed recesses within their adjacent edges and each having remote from such edges opposed depending lugs having fulcrum re-

cesses within the rear edges thereof, a pair of link bars having trunnion-like lugs at their outer ends engaged in said fulcrum recesses, having their inner ends pivotally connected together and constructed with parts to substantially fill the opposed recesses in the frame plate.

5. In a hinge, in combination, a pair of edgewise matching frame plates having opposed recesses within their matching edge portions and adapted to be fitted in edgewise opening mortises in the parts to be hinge connected, a pair of link bars fulcrumed to the frame plates, having their inner ends pivotally united one to the other, formed with portions adjacent their uniting pivot for substantially filling said opposed recesses and making a flush surface continuation of the frame plates and said link bars having at their under portions and adjacent their connecting pivot downwardly extended transverse ribs for forming closures for the edgewise opening mortises when the hinge connected parts are in folded relations.

6. In a hinge, in combination, a pair of edgewise matching frame plates to be secured to the parts to be hinge connected, said plates having opposed recesses within their matching edge portions and the edge of one of said plates having an extension for engaging under the other for preventing a movement, in an upward direction, of the one plate relatively to the other, a pair of link bars fulcrumed to the frame plates having their inner ends pivotally united one to the other and comprising portions adjacent their uniting pivots for substantially filling said opposed recesses, constituting a surface continuation flush with the top of the frame plates.

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

OTTO R. MILKE.

Witnesses:

WM. S. BELLOWS,
G. R. DRISCOLL.