

(No Model.)

G. L. LOOMIS.  
LOCK HINGE.

No. 472,483.

Patented Apr. 5, 1892.

Fig. 1.

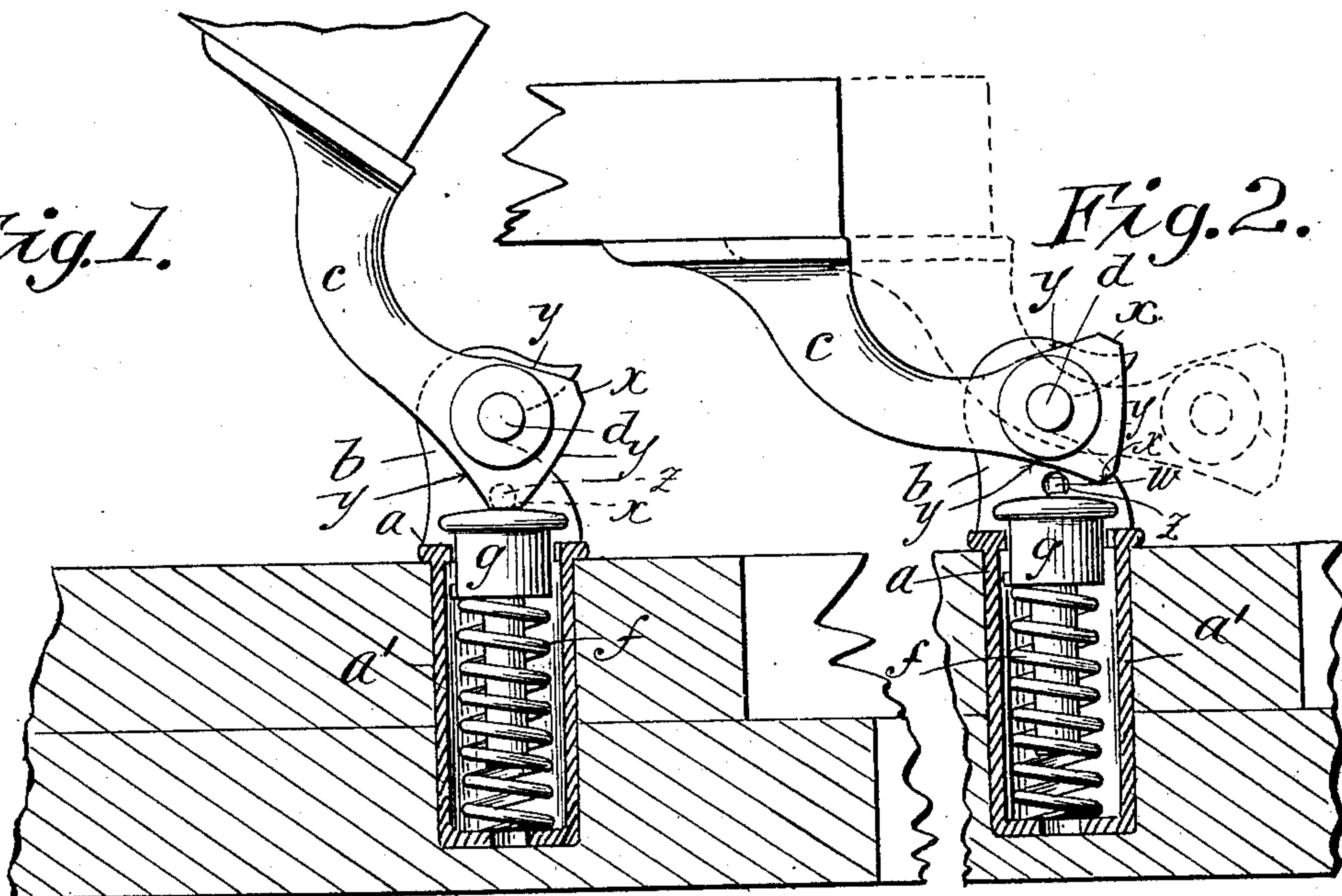
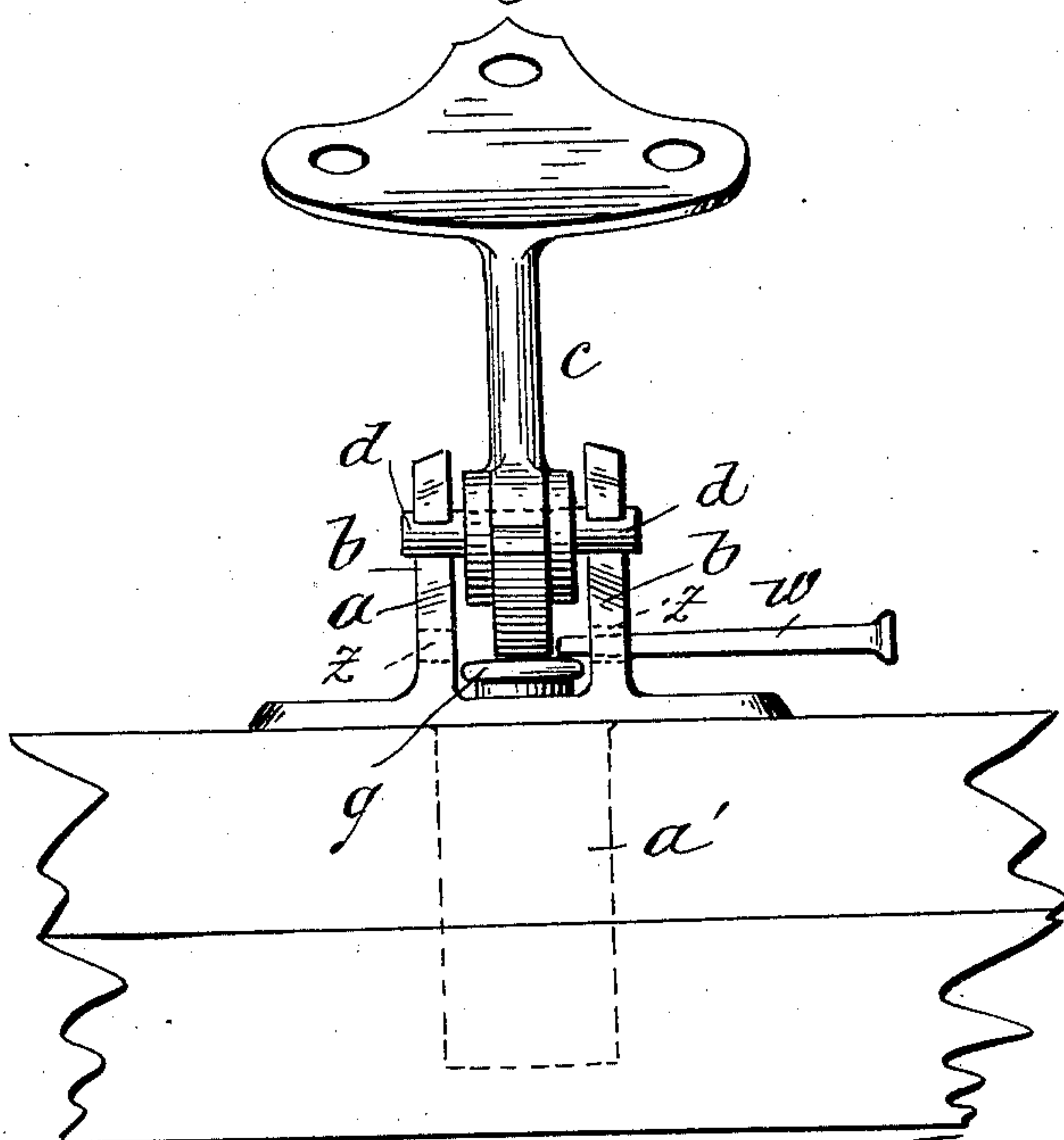


Fig. 3.



Witnesses:

J. D. Goffinet  
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Inventors.

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attys.



# UNITED STATES PATENT OFFICE.

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## LOCK-HINGE.

SPECIFICATION forming part of Letters Patent No. 472,483, dated April 5, 1892.

Application filed September 9, 1891. Serial No. 405,175. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE L. LOOMIS, a citizen of the United States, residing at Northampton, in the county of Hampshire and State of Massachusetts, have invented new and useful Improvements in Lock-Hinges, of which the following is a specification.

This invention relates to improvements in lock-hinges of the class illustrated in Letters Patent of the United States issued to Frank N. Kelsey and myself March 31, 1891, No. 449,366, the object being by a simple formation of a part of the hinge, and a formation which does not appreciably increase the expense thereof, to greatly increase the availability or convenience in use of the hinge—that is, to render the hinge members more easy of engagement with and disconnection from each other—all as will hereinafter more fully appear.

The invention consists in the combination and construction of parts, as will be described and illustrated, and pointed out in the claim.

Reference is to be had to the accompanying drawings, in which the present improvement and the utility thereof are illustrated.

Figures 1 and 2 are sections through portions of window-casings, showing hinges as applied thereupon and as also connecting blinds or other parts, the hinge members in the two views being shown as in different relative positions. Fig. 3 is a front view of the hinge with the parts in their relations shown in Fig. 1.

As in the hinge illustrated in said patent, the one here shown embodies two members *a* and *c*. The one *a* comprises a socketed casing *a'*, which is open at its outer end and is provided at either side of the opening or mouth with the hook-shaped lugs *b b*. The member *c* is adapted to be pivotally connected to the hooked lugs of the other hinged member by the laterally-projecting studs *d*, which may be integrally cast as a part of said hinge member *c*, or, as practically the same, they may consist of the end portions of a pin, which by an intermediate portion has a binding engagement with the said member, the mechanical resort for the production of the said studs *d* being immaterial. There is a spring *f* let

into the casing and resting on or supported from the bottom thereof, said spring exerting a forcing action upon the end portion of the hinge member *c*, which is between the mouth of the casing-socket and the pivotal line constituted by the studs *d*. The tendency of the spring is to hold the hinge member *c*, with the blind or other part supported thereby, in whatever position it may be set. It is preferred to provide a bushing *g* between the spring and the member *c*, which having its outer surface evenly formed is deemed advantageous for obvious reasons. It will be noticed that the extremity of the hinge member *c* is formed with points, as indicated at *x*, which are extended for a greater distance from the line of the pivot-studs *d* than the points *y*, which are adjacent said extended points. The lugs *b b*, one or both, are formed below the hook-opening with the hole or holes *z*, which are as to the lower borders thereof about on a line of the top of the bushing when in its lowermost position as forced inwardly by one of the extended points of the hinge member *c*.

Of course it is understood that the blind may be swung and retained in any position, the spring-pressure exerted on the obliterated portions of the hinge member *c* preventing any movement of said member and the blind, &c., carried thereby, as by the wind, although when sufficient positive force is intelligently applied on the blind, which acts on the hinge member *c* as a lever, the movable parts may be swung as desired. The bushing is held in place when the hinged parts are assembled by the hinge member *c*, which in turn is in engagement with the hook-lugs. On desiring to remove the blind and hinge member *c*, connected thereto, from the engagement with the hook-lugs, the parts to be removed are swung into the position indicated in Figs. 1 and 3, so that the spring and bushing therefor are inwardly forced, when a nail or pin, as indicated at *w*, is entered through the hole *z* in one of the hook-lugs to project by its extremity for a short distance over the top of the inwardly-forced bushing, which is in substance the upper section of the compressed spring. The spring force is thus relieved from the hinge member *c*, so that there is no bind between the



studs *d* and the hook-lugs, and on swinging the movable parts into the position shown in the full lines in Fig. 2 the said movable parts may be carried bodily forward, as shown 5 by the dotted lines in said Fig. 2, for the detachment, as indicated.

The spring in order to be effective in maintaining the blind in its set position, resisting the wind force, is necessarily quite heavy and 10 powerful, and much difficulty has been experienced in the detachment of the parts heretofore in the absence of the capability as now afforded by the provision of the hole *z* in at least one of the socket-lugs for the insertion 15 of a pin or the nail for temporarily maintaining the spring-compression, as stated. Practically the same advantage also arises by the provision set forth in the assemblyment or re-engagement of the parts, and the nail or 20 pin serves, also, while the members *a* and *c* remain detached, to prevent the spring and the bushing therefor from being forced or permitted to pass out of the casing-socket.

What I claim, and desire to secure by Letters Patent, is—

A lock-hinge consisting of two members *c* and *a*, the former having the lateral pivot-forming projections *d d* and the member *a* comprising a socketed casing opened at its outward end and provided with the opposing 25 hook-formed lugs *bb*, adapted for the engagement therewith of said projections *d*, the spring disposed in said casing and exerting an outward forcing action in relation to the member *c*, and one of the hook-formed lugs 35 having a hole *z*, located as described and adapted for the passage therethrough and engagement therein of a pin or the like for temporarily maintaining the spring under compression for relieving the bind exerted by the 40 spring between the engaging portions of the hinge members, substantially as described.

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Witnesses:

LEON M. HOLCOMBE,  
SELDEN W. HAYES.