

(No Model.)

L. F. GRISWOLD.
STOP HINGE.

No. 431,459.

Patented July 1, 1890.

Fig. 1.

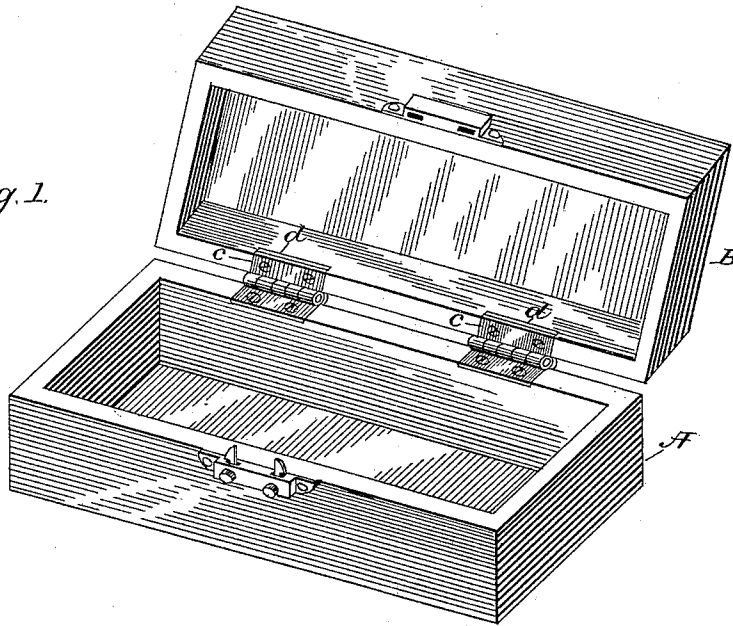


Fig. 2.

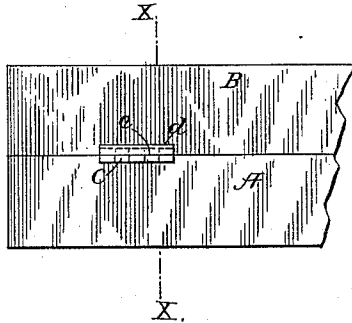


Fig. 3.

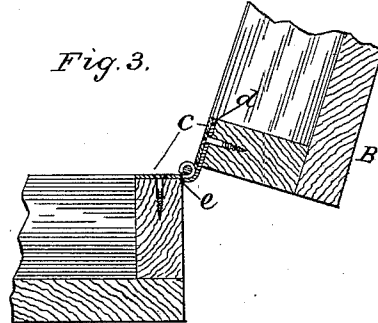
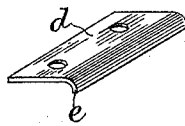


Fig. 4.



Attest:

J. H. Mundy

Edw. D. Leary

Inventor:

Lewis F. Griswold

By

J. N. M. Sutar

Attorney

UNITED STATES PATENT OFFICE.

LEWIS F. GRISWOLD, OF MERIDEN, CONNECTICUT, ASSIGNOR TO THE
CHARLES PARKER COMPANY, OF SAME PLACE.

STOP-HINGE.

SPECIFICATION forming part of Letters Patent No. 431,459, dated July 1, 1890.

Application filed March 4, 1890. Serial No. 342,830. (No model.)

To all whom it may concern:

Be it known that I, LEWIS F. GRISWOLD, of Meriden, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Stop Devices for the Lids of Trunks and Boxes; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of this specification.

Previous to my invention various devices or contrivances have been gotten up for the purpose of holding open or operating as a stop to the further movement by gravity of the opened lid of a box or trunk having its cover hinged to the body portion of the receptacle, and in some of these heretofore known and used contrivances, the construction and operation have been such that the hinged lid of the box or trunk could be set more or less widely open and be held fast at any one of several points of adjustment, while in other forms the device has been such that the stop device has performed only the function of detaining the lid or cover against any further opening movement after it should have been opened back to some point beyond that at which there would be any liability of the cover to close by gravity.

My present invention relates especially to the last-named species of contrivances, and has for its main object to provide for use an exceedingly simple and cheap device which will at the same time perfectly answer the purposes of a stop to prevent the lid of the box from opening back or moving by gravity beyond a predetermined and desired point.

To this main end and object my invention may be said to consist, essentially, in a metallic or other plate-like piece or device separable from but adapted to be used in connection with any ordinary hinge, (and preferably perforated, so as to be held in an operative position by the same screws which serve to secure in place one of the parts of the hinge,) and which operates to stop or limit the relative movement of the parts of the hinge, all as will be hereinafter more fully explained, and as will be more particularly pointed out and specifically defined in the claims of this specification.

To enable those skilled in the art to make and use the device forming the subject-matter of invention in this application, I will now proceed to more fully describe my improvement, referring by letter to the accompanying drawings, which form part of this specification, and in which I have shown my invention carried out in that form in which I have so far practically used it.

In the drawings, Figure 1 is a perspective view of a glove-box having my invention applied to it and showing the lid open. Fig. 2 is a partial back view of the box with the lid closed. Fig. 3 is a detail sectional view taken at the line *xx* of Fig. 2, but with the lid open; and Fig. 4 is a perspective view of one of the plate-like stop devices detached or separated from the box and its hinges.

In the several figures the same part will be found designated by the same letter of reference.

A is the body portion or receptacle proper, and B the lid, of a glove-box, having applied to it at the vicinities of its hinges *c c* two of the novel stop devices *d d*, which operate to hold the lid when opened back against any undue movement by gravity. These stop devices being duplicates and each arranged and operating like the other, a description of one will answer for both.

As clearly shown, the stop *d* is composed of a plate-like piece of metal about rectangular in contour and having one of its two longer edges curved or bent over to conform in curvature with the cylindrical portions of the hinge *c* or with those portions through which passes the usual pintle. Said plate-like piece *d* is preferably perforated with holes, which, when the stop and one portion of the hinge are relatively arranged as shown, will register with the screw-holes in said part of the hinge, so that the screws which secure this part of the hinge to the cover or lid B of the box operate, when turned home, not only to clamp the device *d* between one surface of this part of the hinge and the opposing surface of the box-lid, but also to hold the piece *d* in place laterally in every direction. When combined with the hinge and lid in the manner shown, (see Figs. 1 to 3, inclusive,) the construction and operation of

this device *d* are such, it will be seen, that while the hinge can operate as usual during the movement of the lid B from its closed position to that in which it is shown in Fig. 1, the said lid is prevented from going back any farther by reason of the edge *e* of the piece *d* (see Figs. 2 and 3) coming into contact with the lower protruding portion of that part of the hinge which is secured to the body portion A of the box, and it will be understood, of course, that in proportion to the length or extent of the protruding curved part of the plate-like device *d* will the lid of the box be permitted to turn backward on its hinges to a greater or less extent.

In the use of the device *d* on the glove-box such as shown the extent of this projecting portion is preferably sufficient only to permit the lid B of the box to be opened back just far enough to be safely beyond the point from which it would be liable to drop forward or close by gravity when the bottom of the box may be resting on a substantially horizontal plane; but in the application of the stop-like device to the hinge of some other species of receptacle having a hinged lid (as, for instance, a trunk) in which the gravity of the body portion A of the box may be so great relatively to the weight of the lid that even if the latter were permitted to drop clear back to an angle of forty-five degrees or more with the horizon there would be no liability of upsetting the receptacle, the extent of this protruding portion of the device *d* may of course be greatly lessened to permit the lid of the box to drop backward much farther than the position in which the lid of the glove-box is shown at Fig. 1.

As shown in the drawings, the device *d* is combined directly with that one of the parts of the hinge *c* that is secured to the lid of the box, as by this arrangement of the parts a more unique appearance is perhaps presented to the eye; but, if desired or deemed expedient, the stop device *d* may be removably combined with that part of the hinge which is screwed to the upper edge of the body portion A of the receptacle.

Of course it is not material to the essence of my invention that the precise form of de-

vice *d* shown be employed so long as the stop device be adapted to be conveniently combined, removably, with one part of the hinge and capable of coming into contact at some portion of its protruding part with the other part of the hinge in such manner, as specified, that the relative movement of the parts of the hinge will be restricted to prevent the movement of the hinged lid beyond a certain predetermined point.

For use in connection with hinges of a different pattern or construction from those seen in the drawings the size and shape of the stop device *d* would of course have to be varied. Under any and all modifications, however, to which my invention may be subjected it will always retain, it will be seen, this advantageous characteristic feature, among others—viz., the adaptability to be manufactured and sold as a separate and complete article of manufacture, to be used in connection with hinges of all the various sizes and styles for which the article thus separately manufactured may be specially patterned or designed.

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

1. A stop for box-lid and other ordinary hinges, composed of a plate-like device adapted to be removably combined with either one of the leaves of such hinges and to operate by abutment against the other leaf to restrict the relative movement of the two parts of the hinge, all substantially as hereinbefore set forth.

2. In combination with the two parts of an ordinary hinge, a separate plate-like stop device adapted, as specified, to be secured in an immovable position relatively to one of the leaves of the hinge and operating to limit the relative movement of the two leaves by abutment one against the other, all substantially as hereinbefore described.

In witness whereof I have hereunto set my hand this 21st day of February, 1890.

LEWIS F. GRISWOLD.

In presence of—

WILLIAM H. LYON,
RALPH A. PALMER.