(Model.)

T. L. RIVERS.

TRUNK CATCH.

No. 332,004. Patented Dec. 8, 1885.

Fig. 1.

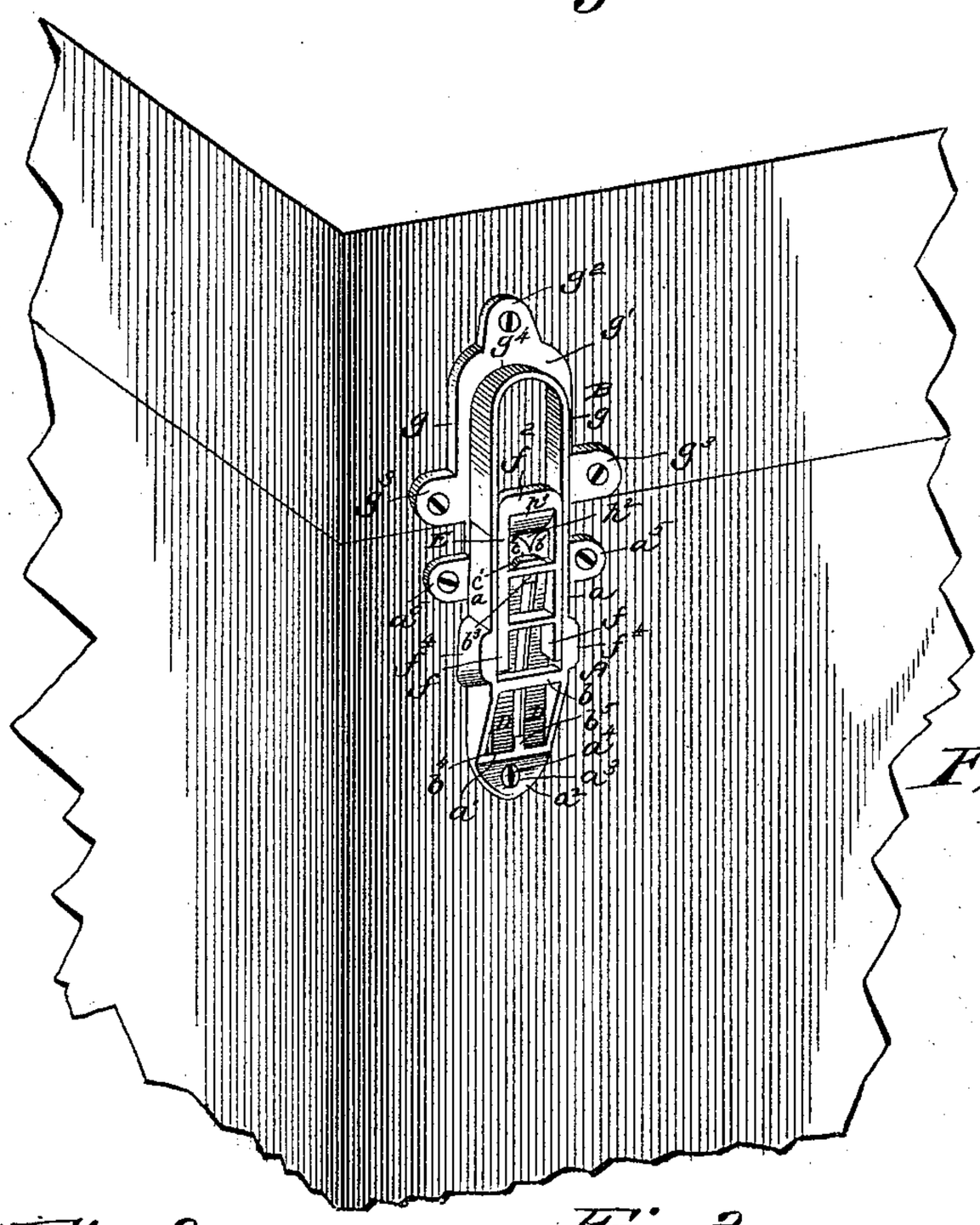


Fig. 6.

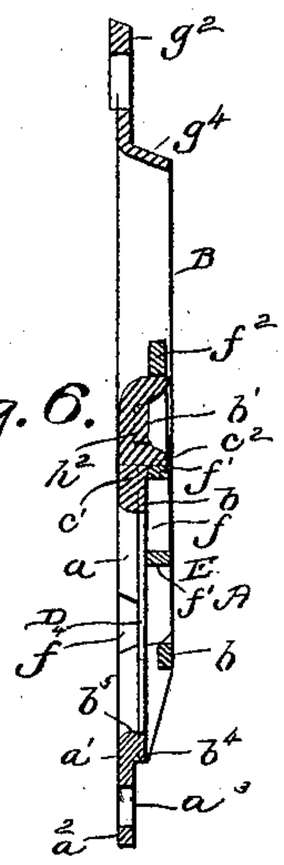


Fig. 2.

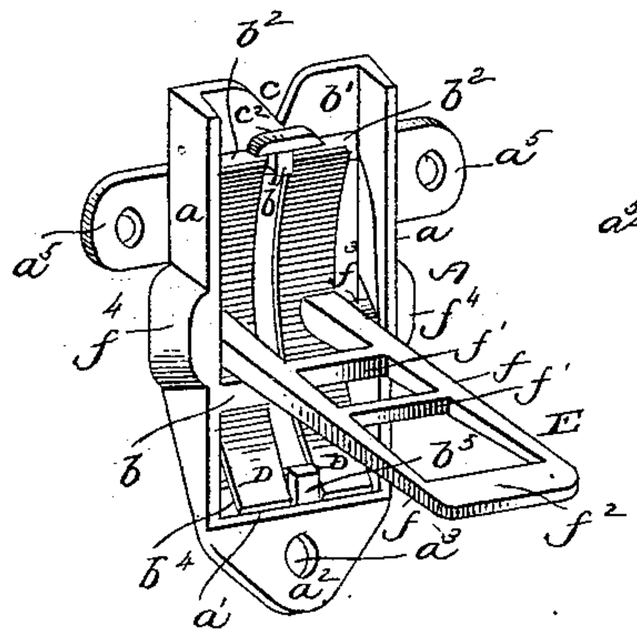


Fig. 3.

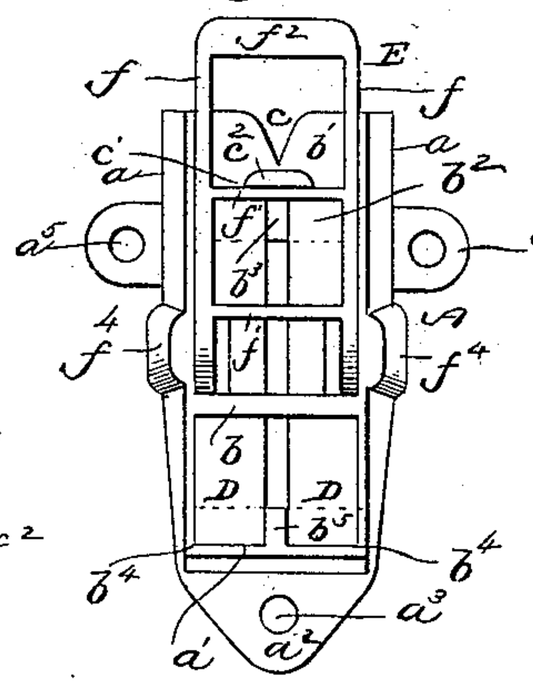


Fig. 4.

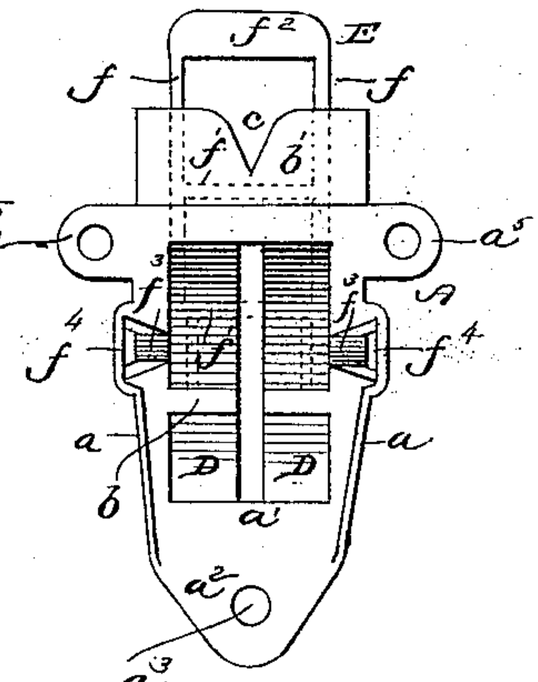
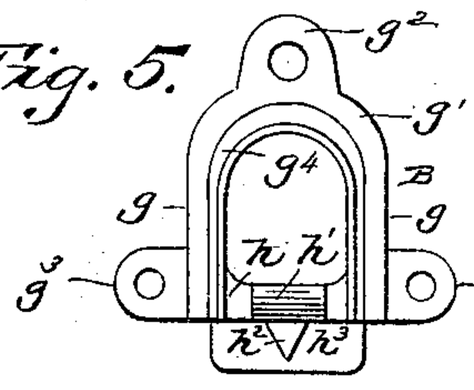


Fig. 5.



WITNESSES

C. H. Sadtler.

H. T. Bernhard

INVENTOR

Thos. L. Rivers.

By C. A. Brown & Co

Attorneys

UNITED STATES PATENT OFFICE.

THOMAS LANGDON RIVERS, OF MONTCLAIR, NEW JERSEY.

TRUNK-CATCH.

SPECIFICATION forming part of Letters Patent No. 332,004, dated December 8, 1885.

Application filed July 25, 1885. Serial No. 172,664. (Model.)

To all whom it may concern:

Be it known that I, THOMAS L. RIVERS, a citizen of the United States, residing at Montclair, in the county of Essex and State of New Jersey, have invented a new and useful Improvement in a Trunk-Catch, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to improvements in latches or fastenings for trunks having a hinged lid; and the novelty consists in the peculiar construction, combination, and arrangement of the various parts for service, substantially as hereinafter fully set forth, and particularly pointed out in the claims.

My invention has for its object the provision of an article of the class named, which shall combine simplicity and durability of construction with effectiveness of operation, ease of application and removal from the trunk and lid thereof, non-liability of getting out of order, and cheapness of manufacture.

In the drawings hereto annexed, and which form a part of this specification, Figure 1 is a perspective view of a trunk fastening or catch, showing a portion of the trunk-body and the lid thereof, the device being arranged in position thereon. Fig. 2 is a similar view of the trunk-body plate detached from the trunk and with its pivoted securing-latch extended. Fig. 3 is a front elevation thereof with the securing-latch in its normal closed position, and Fig. 4 is a rear elevation with the securing-latch in the same position as in Fig. 3. Fig. 5 is a detailed detached view of the lid-plate detached from the lid of the trunk, and Fig. 6 vertical longitudinal section.

Similar letters of reference in the several drawings denote like parts in the figures.

Referring to the drawings, A designates the trunk-plate and B the lid-plate, secured, respectively, to the body of the trunk and the lid thereof, as clearly shown. Each plate is made in skeleton form for lightness and simplicity, and constitutes a single casting. The trunk-plate A comprises longitudinal parallel side bars *a a*, arranged a short distance from each other and connected at their lower ends by a cross-bar, *a'*, having an ear or lug, a^2, depending downwardly therefrom, through which is formed an aperture or opening, a^3, for the passage of one of the securing screws or bolts, a^4. Each of the side bars of said trunk-plate is provided with lugs a^5 at their upper ends, which are also provided with a perforation or aperture for the passage of one of the screws or bolts. Said bars *a a* are provided with a cross-bar, *b*, near their lower ends, and arranged in a plane flush with the upper edges thereof, while at their extreme upper ends they are connected by a cross-plate, *b'*, formed therein below the plane of the upper surfaces of the side bars *a* and above the plane of the lower surfaces thereof, as clearly shown. The plate *b'* is rabbeted on its inner edge, as at b^2, and about its middle in the rabbeted portion it has a ledge or projection, b^3, for a purpose hereinafter described. The lower plate, a^2, is similarly rabbeted on its inner edge within the plane of the side bars *a*, as at b^4, and is provided with a ledge, b^5.

At each side of the trunk-plate A, within the side bars *a* thereof, and on a plane flush with or a little below the under surfaces thereof, is arranged a flat spring, D, fitted in the rabbeted edge of the inner surfaces of the plates *a' b'*, and at each side of the lug or ear thereof b^3 b^5, it being understood that a spring is fitted in the ledged portions of each plate, which are arranged diametrically opposite to each other.

The forward edge of the plate *b'* is notched as at *c*, and is adapted to receive a projecting lug, h^2, formed at the lower edge of the plate B. The plate *b'* has an under cut-away portion, *c'*, as before described, and on its upper surface at the rear edge thereof it is provided with a lug, c^2, against which abuts or fits the middle cross-bar of a pivoted locking-latch, E, when said latch is in its normal closed position.

The locking-latch E is composed of side bars *f f*, connected at their upper ends and at intermediate points along their length by horizontal parallel cross-bars *f' f'* f^2, the latter of which is arranged at their upper ends and engages or takes over a lug or shoulder formed on the lower end of the lid-plate B, presently described. The extreme lower ends of the locking latch E are provided each with an outwardly-projecting ear or lug, f^3, adapted to fit or bear in a recess, f^4, formed in the under surfaces of the side bars *a* of the trunk-plate A near the middle thereof, the springs D D being always in contact with the lower ends of said side bars of the latch E and keep the same normally pressed downward in contact with the locking-shoulder of the lid plate or casting B. It will be observed that the locking-latch E fits with-

in the side bars of the trunk-plate A and lies flush with the upper surfaces thereof, and that when any lateral strain comes upon the locking-latch E from the lid of the trunk it is forced against the inner surfaces of the side bars of the frame, thus relieving the pivots of the latch from undue strain and obviating the objection of their becoming broken or deranged. The plate B comprises side bars *g* *g*, curved or rounded at their upper ends and connected by a segment, *g'*, said side bars having an end projecting lug, g^2, and side lugs, g^3, at their lower ends, each lug being perforated for the passage of the securing screws or bolts for fastening the plate B upon the lower edge of the trunk-lid. The upper surface of the side bars and rounded portion thereof is provided with a continuous flange, g^4, arranged at the inner edges thereof surrounding the central opening therein, the upper edge of said flange at the rounded portion thereof being sloped inwardly at an acute angle, so that when any blows or force are exerted thereon it will more readily slide off and thus prevent injury or breakage to the parts. The lower ends of the side bars *g* are connected together by a plate, *h*, arranged flush with the lower surfaces thereof and below the plane of the upper surfaces, said plate having a central beveled locking-shoulder, *h'*, formed thereon so as to leave short narrow spaces between the side arms of the lid-plate for the reception of the extreme forward ends of the side bars of the locking-latch E, the plate *h* being further provided with a projecting lug, h^3, arranged in front or below the locking-shoulder and upon the upper surface thereof, said lug being adapted to enter or engage with the notch *c* of the plate *b'* of the trunk-plate A.

The operation of my invention is as follows: Two of the plates B having been secured upon the trunk-lid near the lower edge thereof and at proper distance apart, the plates A are secured by screws or otherwise upon the trunk-body near the upper edge thereof and at a distance from each other corresponding to the distance which the plates B are secured from each other, and opposite said plates B and adapted to register therewith when the lid is forced down. The lid is now lowered, when the beveled locking-shoulder *h'* comes in contact with the forward cross-bar of the locking-latch E. The pressure exerted by the descending lid and shoulder overcomes the tension of the springs D and elevates the forward free end of the pivoted locking-latch, so as to allow the projection h^2 to enter the notch *c* of the plate *b'*, at which position the rear edge of the beveled locking-shoulder *h'* is passed the rear edge of the front cross-bar, f^2, of the plate E, which is then forced down by the reaction of the springs D, which press upon the lower edges of the side bars of said locking-latch E, as before described, thus securely and automatically locking the trunk-lid in position.

From the foregoing description, taken in connection with the drawings, it will be observed that a trunk-fastening device constructed in accordance with my invention is extremely light and simple, durable and strong in construction, cheap of manufacture, can be readily removed from the trunk, when desired, and replaced thereon without trouble or annoyance, is effective and automatic in operation, and not liable to get out of order.

I have shown two pressure-springs D D, arranged parallel with each other at the lower end and within the side bars of the frame or plate A, each of said springs being adapted to bear upon one of the side bars of the locking-latch E; but a single spring may be employed, if desired, extending from side to side and end to end of the frame within the side bars thereof, and other changes may be made in the details of construction without departing from the principle or sacrificing the advantages of my invention, the essential features of which will be readily understood from the foregoing description, taken in connection with the drawings.

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

1. In a trunk-fastening device, the combination of a lid-plate having a locking-shoulder, a trunk-plate having rabbeted edges b^2 b^4, a pivoted locking-latch carried by said trunk-plate, and springs D, seated in the rabbeted edges of a trunk-plate, and adapted to keep the locking-plate in contact with the lid-plate, as set forth.

2. In a trunk-fastening device, the combination of a skeleton-shaped trunk-plate, having a notch, *c*, a spring-actuated locking-latch pivoted within the side bars of the trunk-plate and normally depressed flush therewith, a lid-plate having a beveled locking-shoulder with which the locking-latch engages, and a V-shaped projecting lug, h^3, adapted to fit in the notch *c* of the trunk-plate, as set forth.

3. In a trunk-fastening device, the combination of a skeleton-shaped trunk-plate, having bearings f^4, and rabbeted edges b^2 b^4, springs D, seated in said rabbeted edges, a locking-latch, E, having lugs seated in the bearings f^4, and normally depressed within the trunk-plate by the said springs, and a lid-plate having a projecting beveled locking-shoulder, *h'*, whereby when the lid descends the locking-shoulder will automatically engage the pivoted locking-latch, which lies within the plane of the lid and trunk-plates when the said plates are locked together, as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

THOMAS LANGDON RIVERS.

Witnesses:
ABRAHAM MANNERS,
WILLIAM L. BRICE.