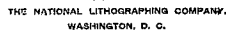


J. MOHRING.
TRUNK STRAP FASTENER.

Patented Dec. 26, 1893.



UNITED STATES PATENT OFFICE.

JOHN MOHRING, OF LANCASTER, PENNSYLVANIA.

TRUNK-STRAP FASTENER.

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To all whom it may concern:

Be it known that I, JOHN MOHRING, a citizen of the United States, residing at Lancaster, in the county of Lancaster and State of Pennsylvania, have invented certain Improvements in Trunk-Strap Fasteners, of which the following is a specification.

This invention relates to improvements in that class of fasteners which are used with trunk straps to fasten and tighten the same after the trunk is closed; and the invention consists in the construction and combination of the various parts, as hereinafter fully described, and then specifically pointed out in the claims.

In the accompanying drawings, which form a part of this specification, Figure 1 is a perspective view of my fastener, showing the same closed to tighten the strap about the trunk, and Fig. 2 is a similar view, but showing the parts disconnected. Fig. 3 is a vertical section on the line $x-x$, Fig. 1.

Similar letters and numerals indicate like parts throughout the several views.

Referring to the details of the drawings, A indicates a base-plate having ears a' , through which it is secured to the front face or bed A' of the trunk. On the face of the upper end of this plate A there are formed ribs or flanges a , the tops of which extend above the body of the plate and have their upper ends connected by a cross-bar a^2 , around which is secured the end A^3 , of the strap which passes over the top of the trunk. Below the cross-bar a^2 there is a catch or hook formed of a concavo-convex plate B, which has a hinge-bar b attached thereto that passes loosely through perforations in the ribs or flanges a and is revolved with the movement of plate B as the same is raised and lowered. A spring-plate C is secured at the bottom in the lower end of the channel formed by the ribs a , the lower ends of which are increased in height and flare outward. The upper end of the spring-plate is curved outward from the face of the plate A and rests against the center of the bar b , on which there is formed a prong b' , that engages the back of the spring-bar and forces the upper end outward, as shown by broken lines at c , Fig. 3, as the catch B is turned up into the position shown in Fig. 2. On the lower end of the face of plate A

there are also formed ribs or flanges d , having the upper ends flaring outward toward the edges of the plate, the ribs being in position to form a channel in line with that formed by the ribs a . A lip D extends downward from the plate A from between the ribs d and is received in a recess f' , formed in the lower plate, as will be described.

E represents a base-plate having ears e , through which it is secured to the front of the body A^4 of the trunk below the base-plate A. Ribs or flanges F are formed on the face of this plate in position to form a channel f in line with the channel in the plate A. The upper ends of the ribs F are the same distance apart as the ribs d , and thence their inner faces curve outward so as to increase the width of the channel f , which increased width is continued to the lower ends of the ribs. The lower ends of these ribs F are increased in height and form journal bearings, f^2 , for the spindles g' of a lever G. At its free end the lever G is formed of a single arm or handle, the inner end of which is bifurcated to form jaws g , having on their ends spindles or journals g' , that engage the journal bearings f^2 . A cross-bar H connects the jaws g near their point of intersection, as shown in Figs. 1 and 2, to which is attached the end, A^5 , of the strap which passes under the bottom of the trunk. The strap A^5 may be secured to the bar H in several ways. In Fig. 1 the bar H is shown as having a downwardly curved prong h formed thereon. With this construction the strap A^5 is carried around the bar H and has a series of holes punched in the end K, which laps around said bar and has the holes therein adapted to be engaged by the prong h , so that the length of the strap A^5 can be adjusted about the bar H. In Fig. 2 the end of the strap A^5 is simply looped over the bar H and the end riveted to the body thereof. I prefer the way of connecting the strap shown in Fig. 1, as by it any variation in the length thereof may be readily counteracted. The jaws of the lever G meet at an angle, as shown in Figs. 1 and 2, which is adapted to fit over a triangular tongue d' , projecting from the lower end of the lip D. When the lid of the trunk is closed the lip D is received in a recess f' , formed in the upper part of the channel f .

In operating—the device being in position shown in Fig. 2—the lever is raised and the handle forced into the channels formed by the ribs or flanges *a a* and *d d*, so as to rest against the face of the spring-plate C, held forward by the pressure of the prong *b'*. The hook-plate B is then turned down into the position shown in Fig. 1. This movement revolves the hinge bar *b* forward and lowers the prong *b'*, permitting the hook-plate to press the lever handle down closely against the bottom of the channel. To hold the lever more securely in place, there is a recess *b²* formed in the center of the front of the rim, that takes over and engages a shoulder *g²*, formed on the front of the lever handle by cutting a recess therein. To open the fastener again, the hook-plate is raised, forcing the handle of the lever outward by contact of the prong *b'* with the spring-plate C, so that the upper end of the lever may be easily grasped. The hook-plates, when raised, also form handles whereby the lid of the trunk can be conveniently raised. This is a great advantage over the handles in ordinary use, and which project permanently from the side of the trunk, inasmuch as my hook-plates are folded down flat against the side of the trunk when it—the trunk—is closed for transportation. The inner edges of the plates A and E are set flush with the meeting edges of the top and body of the trunk, and the ends of the flanges at those edges of the plates are enlarged and flattened to form bearings for each other when the trunk is closed. On the bottom surfaces of the ends of the flanges *d* of the plate A there are formed tongues 2, that engage corresponding openings in the enlarged ends of the flanges F, of the plate E. These tongues serve to hold the parts together more securely; and as will be observed, the fastening is very easy of manipulation, and is so constructed as to bring the edges of the meeting parts tightly together. The spring C not only throws the handle of the lever outward by the action of the prong *b'* when the hook plate B is raised, but it also holds the shoulder *g²* in close engagement with the recess *b²* when the said hook plate is lowered.

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

1. In a trunk-strap fastener, the combination, with a lever hinged to one side of the opening of the trunk and having one end of the strap attached thereto between the hinge and the free end thereof, of a lip on the other side of said opening adapted to be engaged by the free end of the lever, and a hinged catch or hook constructed to take over said free end of the lever when it is engaged with the lip and having a recess therein that engages a shoulder formed in the lever, substantially as and for the purpose specified.

2. In a trunk strap fastener, the combination, with a lever hinged to one side of the opening of the trunk and having one end of

the strap secured thereto between the hinge and the free end thereof, of a lip secured to the trunk on the other side of said opening and adapted to be engaged by the lever, a catch or hook hinged to the trunk on the same side of the opening to which said lip is secured and constructed to take over the free end of the lever, and a spring secured beneath the catch or hook and located to form a bearing for the free end of the lever, substantially as and for the purpose specified.

3. In a trunk strap fastener, the combination, with a lever hinged to one side of the opening of the trunk and having one end of the strap secured thereto between the hinge and the free end thereof, of a lip secured to the trunk on the other side of said opening and adapted to be engaged by the lever, a catch or hook hinged to the trunk on the same side of the opening to which said lip is secured and constructed to take over the free end of the lever, a spring secured beneath the catch or hook and located to form a bearing for the free end of the lever, and a prong formed on the hinge of the catch or hook and constructed to engage the back of said spring as said hook or catch is raised, substantially as and for the purpose specified.

4. In a trunk-strap fastener, the combination, with journal bearings formed on one side of the opening of the trunk, of a lever having one end bifurcated to form jaws, spindles on the jaws engaging said journal bearings, a cross-bar connecting the jaws between the spindles and the handle of the lever and having one end of the strap attached thereto, a lip secured to the trunk on the other side of said opening and having a tongue thereon adapted to engage between said jaws, and a catch or hook constructed to take over the handle of the lever and attached to the trunk on the same side of the opening to which said lip is secured, substantially as and for the purpose specified.

5. In a trunk-strap fastener, the combination, with journal bearings formed on one side of the opening of the trunk, of a lever having one end bifurcated to form jaws, spindles on the jaws engaging said journal bearings, a cross-bar connecting the jaws between the spindles and the handle of the lever and having one end of the strap attached thereto, a lip secured to the trunk on the other side of said opening and having a tongue thereon adapted to engage between the jaws, and a hinged catch or hook constructed to take over said handle of the lever when the jaws embrace said tongue and having a recess therein that engages a shoulder formed in the handle, substantially as and for the purpose specified.

6. The combination, with a lever hinged to the body of a trunk, of a lip attached to the lid thereof and adapted to be engaged by the free end of the lever, and a catch or hook hinged to the lid and adapted to take over the free end of the lever when it is engaged with the lip, the said catch or hook being con-

structed to stand out from the lid when disengaged from the lever and form a handle whereby the lid can be raised, substantially as specified.

5 7. The combination, with a lever hinged to one side of the opening of the trunk, of a lip on the other side of said opening adapted to be engaged by the free end thereof, and a hinged handle formed of a concavo-convex
10 plate constructed to take over said free end of the lever and having a recess therein that engages a shoulder formed in the handle, substantially as and for the purpose specified.

15 8. The combination, with ribs forming a channel on one side of the opening of the trunk, of a lever hinged between said ribs, ribs on the other side of said opening forming a channel registering with the channel first mentioned, a lip in the last named channel adapted to be engaged by the free end of the lever, and a catch or hook hinged in the ribs forming the channel in which said lip is located and adapted to take over the free end
20 of the lever when it is engaged with the lip, substantially as and for the purpose specified.

25 9. The combination, with a plate secured to the lower side of the opening of the trunk, of a lever hinged thereto, a plate secured to the upper side of said opening and having a lip thereon adapted to be engaged by the lever, a catch or hook hinged to the upper plate and constructed to take over the free end of the lever when it is engaged with the lip, and
30 tongues on the meeting edge of one of said plates formed to engage corresponding openings in the meeting edge of the other plate, substantially as and for the purpose specified.

35 10. The combination, with a plate secured to the lower side of the opening of the trunk, of ribs thereon forming a channel, a lever hinged between said ribs, a plate secured to the upper side of said opening and having ribs thereon forming a channel registering with the channel in the lower plate, a lip located in the upper channel adapted to be engaged by the lever, a catch or hook hinged in the ribs on the upper plate and constructed to take over the free end of the lever when it is engaged with the lip, and tongues on the
45 meeting edge of one of said plates formed to engage corresponding openings in the meeting edge of the other plate, substantially as and for the purpose specified.

50 11. The combination, with a plate secured to the lower side of the opening of the trunk, of ribs thereon forming a channel, a lever having one end bifurcated to form jaws, spindles on the jaws journaled in said ribs, a plate secured to the upper side of said opening and
55 having ribs thereon forming a channel regis-

tering with the channel in the lower plate, a lip located in the upper channel and having a tongue thereon adapted to engage between said jaws, a catch or hook hinged in the ribs on the upper plate and constructed to take over the handle of the lever when the jaws are engaged with said tongue, and tongues on the meeting edge of one of said plates formed to engage corresponding openings in the meeting edge of the other plate, substantially as
65 and for the purpose specified.

12. The combination, with a plate secured to the lower side of the opening of the trunk, of ribs thereon forming a channel, a lever hinged between said ribs, a plate secured to the upper side of said opening and having ribs thereon forming a channel registering with a channel in the lower plate, a lip located in the upper channel adapted to be engaged by the lever, a catch or hook hinged in the ribs on the upper plate and constructed to take over the free end of the lever when it is engaged with the lip and having a recess therein that engages a shoulder formed in the lever, a spring located beneath the catch or hook to form a bearing for the lever, and
75 tongues on the meeting edge of one of said plates formed to engage corresponding openings in the meeting edge of the other plate, substantially as and for the purpose specified.

13. In a trunk-strap fastener, the combination, of a base-plate secured to the lid of the trunk, ribs forming a channel on the face of said plate, a bar to which one end of the strap is secured supported between the upper ends of the ribs, a concavo-convex catch or hook-plate pivoted in said ribs by a hinge-rod, the said hook plate having a recess formed in the front of the rim thereof, a prong formed on the hinge-rod, a spring secured to the base-plate below the hinge-rod and having its free end bearing against the same, a lip formed on the lower end of the plate, a base-plate fastened to the body of the trunk below the other base-plate, ribs on said lever-plate forming a channel, a lever having jaws on one end journaled in the ribs on the lower plate, a bar to which the other end of the strap is fastened supported by said jaws, the angle formed by said jaws being adapted to take over the lip on the upper plate and the handle of the lever having a shoulder constructed to be engaged by the recess in the hook-plate, all constructed and operating substantially as and for the purpose specified.

JOHN MOHRING.

Witnesses:

GEO. A. LANE,
WM. R. GERHART.