

(No Model.)

H. B. LUM.
TRUNK STRAP COUPLING.

No. 387,086.

Patented July 31, 1888.

Fig. 1.

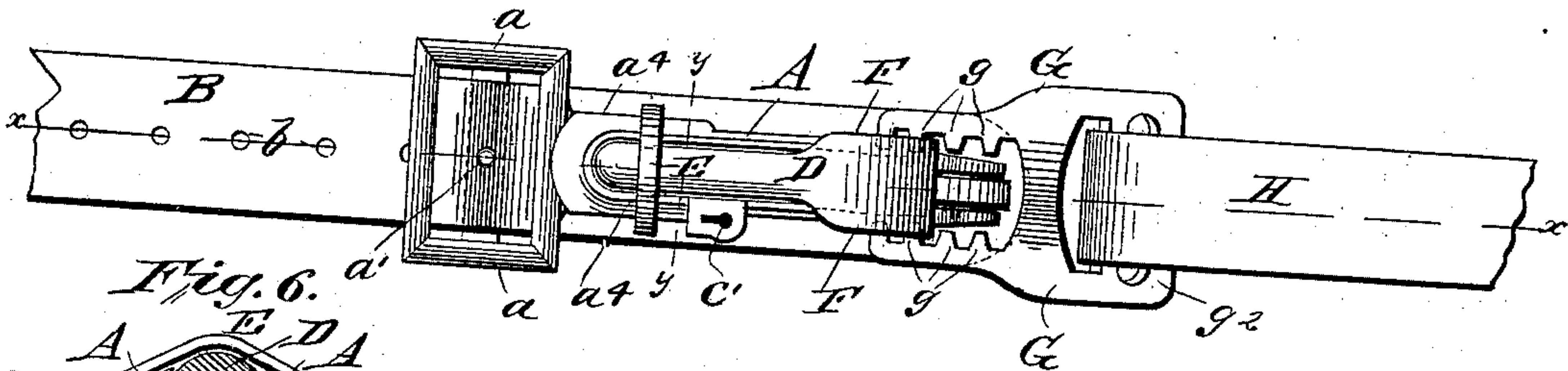


Fig. 6.

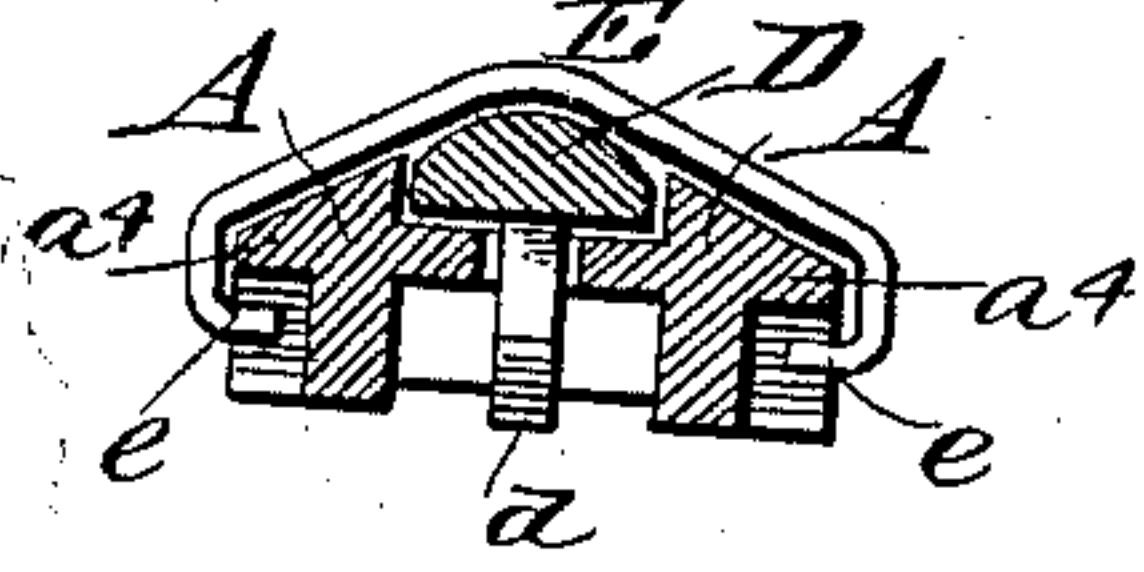


Fig. 2.

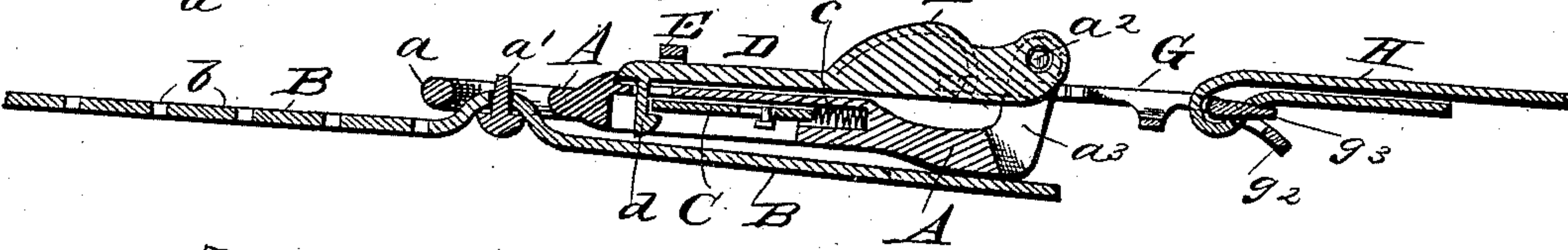


Fig. 7.

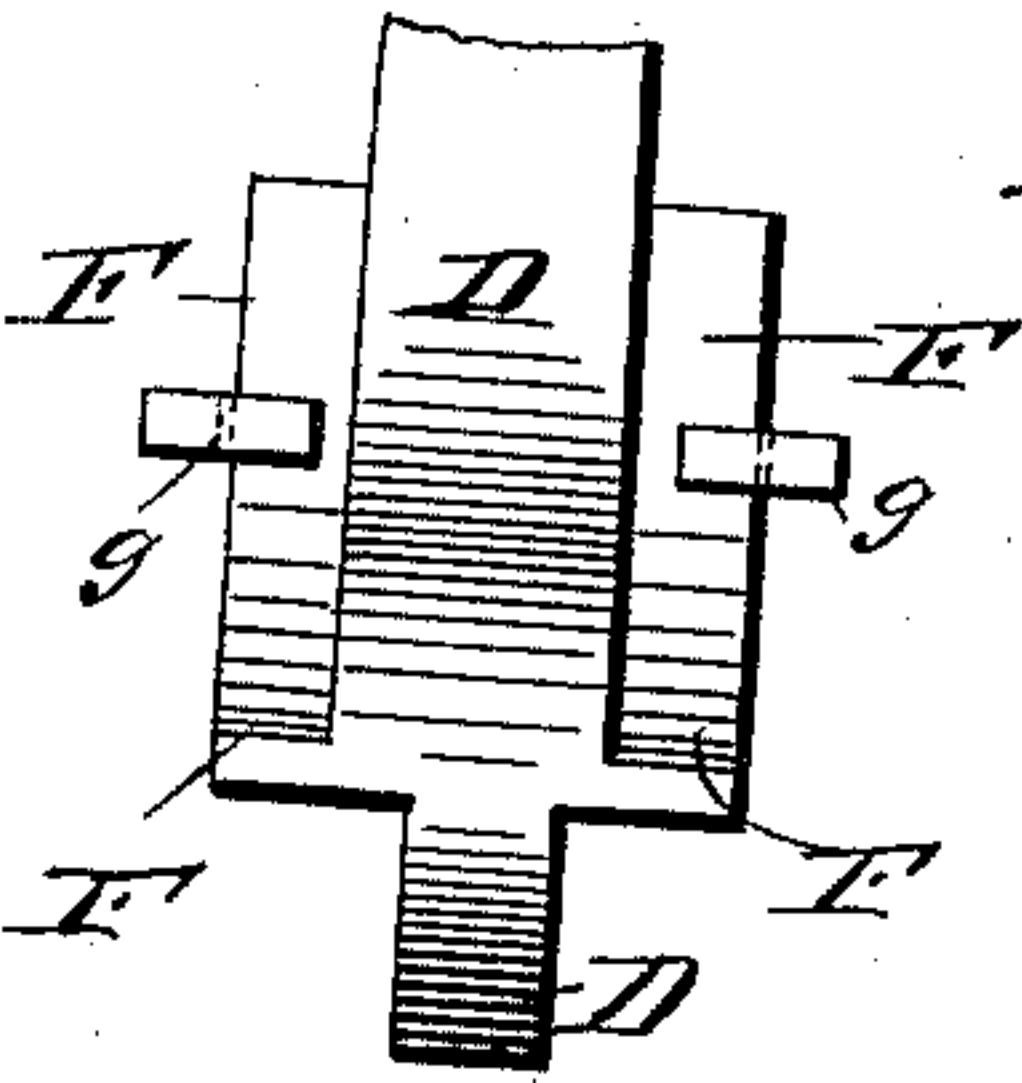


Fig. 3.

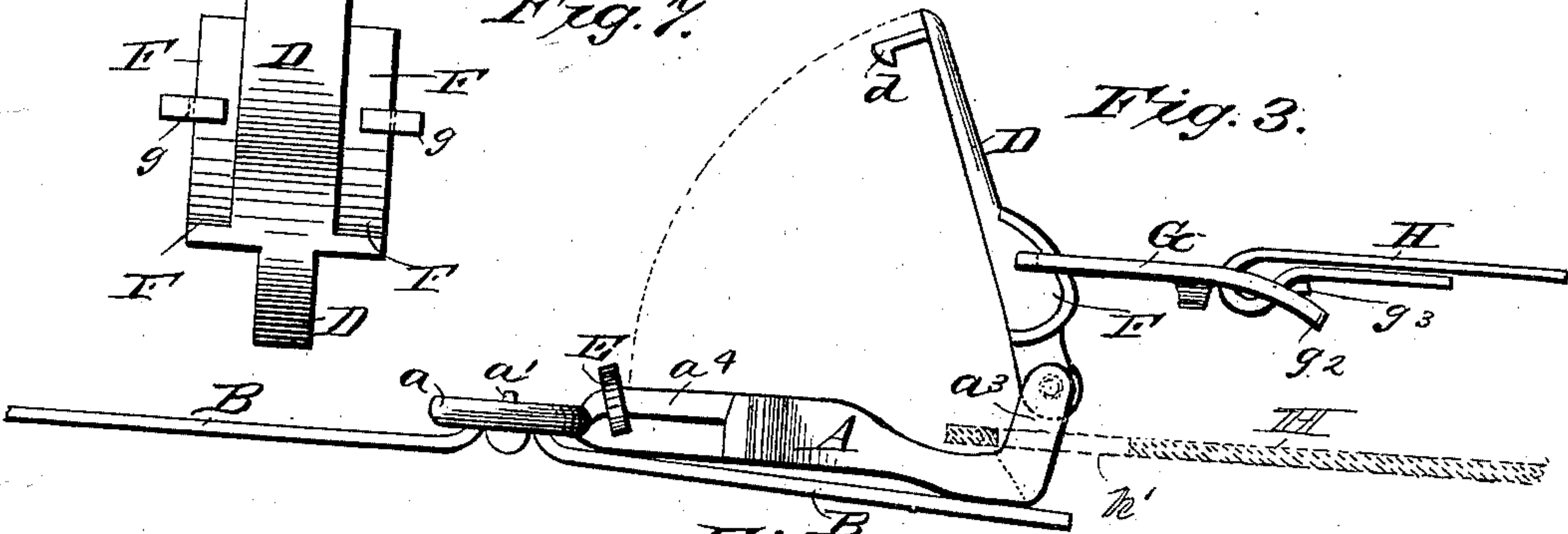


Fig. 4.

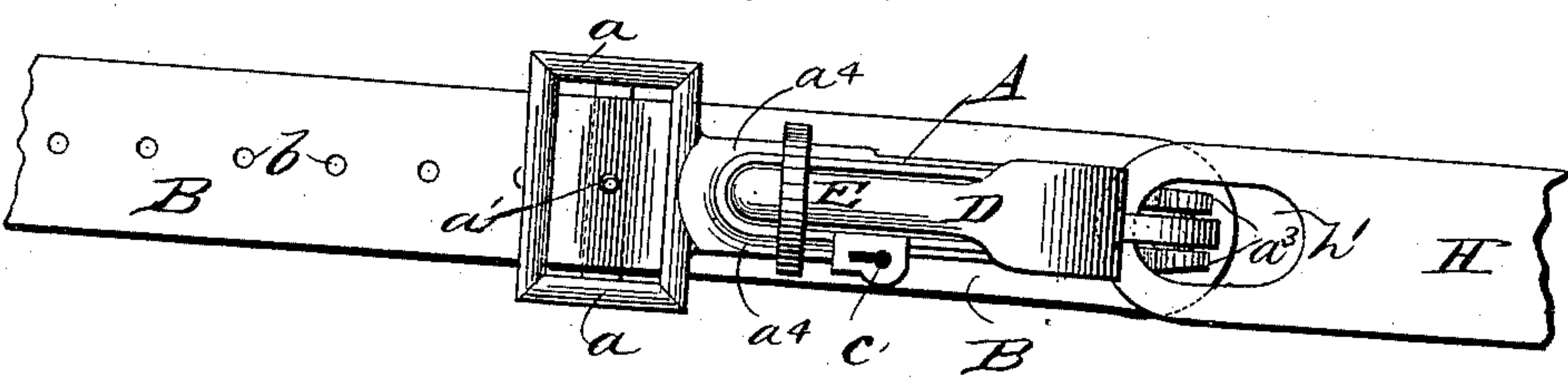


Fig. 5.

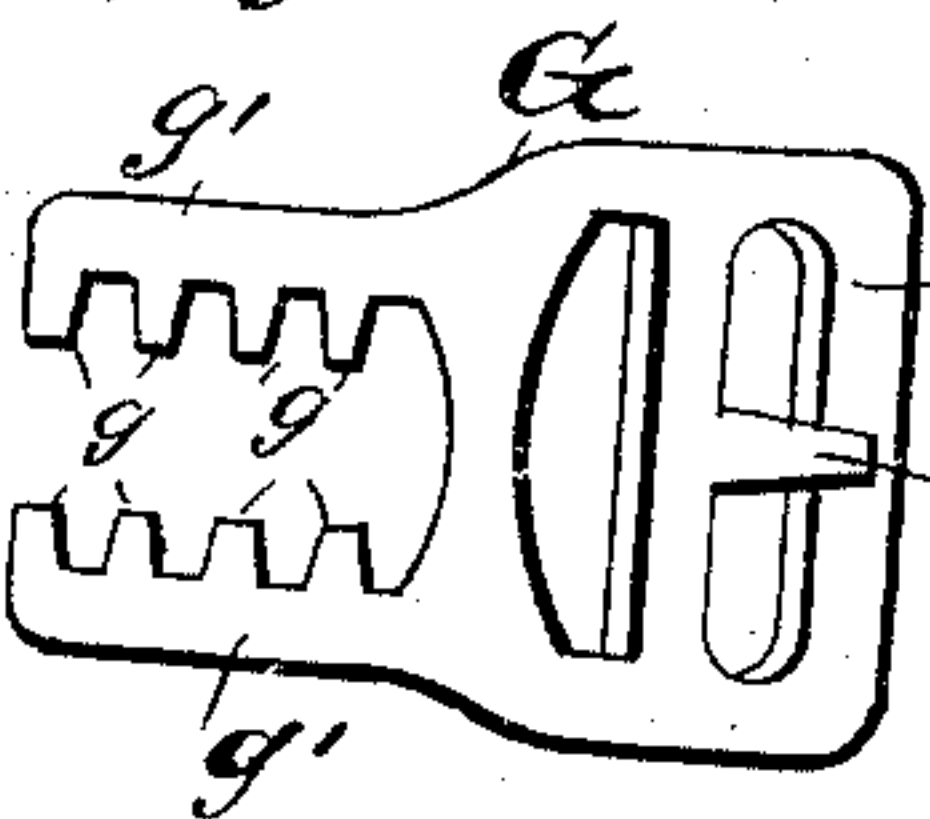
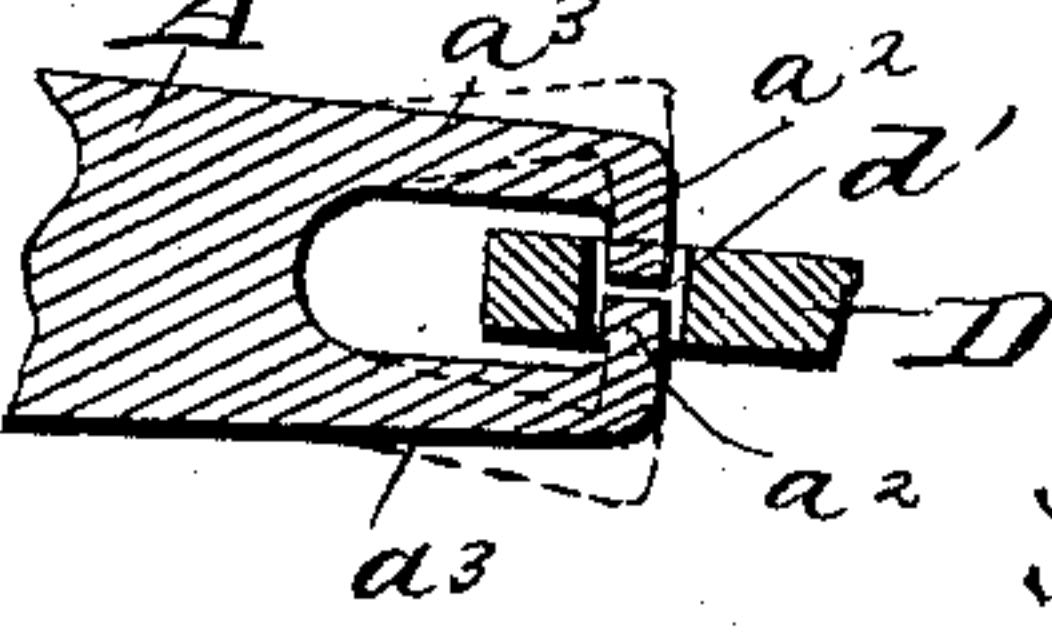


Fig. 8.



WITNESSES:

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TRUNK-STRAP COUPLING.

SPECIFICATION forming part of Letters Patent No. 387,086, dated July 31, 1888.

Application filed March 29, 1888. Serial No. 268,785. (No model.)

To all whom it may concern:

Be it known that I, HENRY B. LUM, of Red Bank, in the county of Monmouth and State of New Jersey, have invented a new and Improved Trunk-Strap Coupling, of which the following is a full, clear, and exact description.

My invention relates to couplings intended more especially for connecting the ends of a strap for tightening it around a trunk, box, or package; and the invention has for its object to provide a simple, inexpensive, and efficient coupling of this character.

The invention consists in certain novel features of construction and combinations of parts of the strap-coupling, all as hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of my improved trunk-strap coupling in its preferred form and with the ends of the strap attached. Fig. 2 is a longitudinal sectional side or edge view, taken on the line *x x*, Fig. 1. Fig. 3 is a side elevation illustrating the manner of tightening the strap by the coupling. Fig. 4 is a plan view showing a modified form of one of the straps and its connection with the coupling. Fig. 5 is a detail plan view of the adjustable catch-plate buckle of the coupling. Fig. 6 is an enlarged cross-sectional view of the coupling, taken on the line *y y* in Fig. 1. Fig. 7 is an enlarged inside face view of part of the straining-lever of the coupling and the attached ends of the catch-plate buckle, and taken at right angles to these parts in the positions they have in Fig. 3; and Fig. 8 is a detail sectional plan view illustrating the manner of connecting the main lock-plate and straining-lever of the coupling.

The main or lock plate A of the coupling is provided at one end with a buckle or loop, *a*, having a cross-bar provided with a pin, *a'*, which enters one of the holes *b* of one end, B, of the strap, which is passed through the buckle and over the cross-bar, as shown in Figs. 1 and 2 of the drawings. At its under side the body of the plate A is recessed to receive a bolt, C, which is normally projected by

a coiled spring, *c*, and may be operated by a key introduced at a key-hole, *c'*, at the top of the plate, so as to release a hook, *d*, formed on the free end of a straining-lever, D, which is pivoted at its other end to the outer end of the plate A, and preferably by means of opposite pins, *a² a²*, on the opposite side lugs, *a³ a³*, of the forked end of the plate, entering a hole, *d'*, in the lever. The lugs *a³ a³* are cast with the plate A in the condition or positions indicated by the dotted lines in Fig. 8 of the drawings, thus allowing the ends of the lug-pins *a² a²* to be replaced opposite the hole *d'* in the lever and be entered into said hole by a stroke of a hammer to complete the pivotal connection, which is thus cheaply and strongly made.

At its outer end next the strap-loop *a* the main plate A is provided with opposite longitudinal lips or flanges, *a⁴ a⁴*, which overhang the main body of the plate sufficiently to allow the inbent lower ends, *e e*, of a metal-retaining loop or ring, E, to be caught under the flanges, and permitting the loop to be slipped along the plate A and over the free end of the lever D, when it is closed into the recess provided for it at the top of the plate, and thus hold the lever into the plate when unlocked, and giving additional security when the lever is locked by the bolt C, which automatically engages the lever-hook *d*, as the lever is lowered to the main plate A, and as shown in Fig. 2 of the drawings, a key being required to throw back the bolt to release the lever when uncoupling the strap.

In its preferred form the straining-lever D is provided at each side toward its back or pivoted end with a flange or lip, F, which overhangs the body of the lever sufficiently to allow opposite inbent lugs or lips, *g g*, on the metal catch-plate buckle G of the coupling to be caught beneath the opposite lips, F F, which are curved in a manner to form cams, giving them a straining or drawing action on the catch-plate to pull it toward the main lock-plate A to tighten the strap as the lever is brought downward into the lock-plate. In its preferred form the catch-plate buckle is provided with two opposite side bars or plates, *g' g'*, separated far enough to allow the body of the lever D in front of its cam-flanges F F

to pass between the side bars, which are notched in a manner to form a series of pairs of opposing inbent lips or lugs, g g , either pair of which may be engaged beneath the cam-flanges F F, thus allowing the two end parts, B H, of the trunk-strap to be drawn closer together to tighten the strap onto the trunk or box to which it may be applied, and without shifting the main-plate loop-pin a' to another one of the holes b in the strap B, and facilitating the quick and easy adjustment of the strap. The outer end of the catch-plate buckle G is formed with a loop, g^2 , having a cross-bar provided with a hook or pin, g^3 , which engages a hole of the end H of the strap, which is passed through the loop if the strap is of leather; but if the strap is of metal the pin need not pass through the same. The pin g^3 stands off from the cross-bar to allow the end of a metal strap to be slipped into the buckle-loop and bent around it to hold securely without rivet or other fastening. When a metal strap is used with the coupling having the catch-plate buckle G, the end B of the strap need have but one hole b to receive the pin a' of the main-plate buckle a , and the strap may be lengthened or shortened by adjusting its end H in the catch-plate-buckle loop g^2 .

It is not essential that the catch-plate buckle G be used to fasten the strap around a trunk or package, as one end H of the strap (see Fig. 4 of the drawings) may be provided with a hole, h' , through which the straining-lever D may be slipped prior to drawing down the lever to its fastening in the main-plate A of the coupling, and when this construction of strap is used reliance will be placed altogether on the shifting of the loop-pin a' of the lock-plate A to other holes b of the end B of the strap when the strap is to be adjusted as to length or is to be drawn up more tightly.

The extremity of the end part, B, of the trunk-strap will preferably be extended along beneath the coupling-plate A to prevent said plates scratching or marring the trunk or package to which the coupled strap is applied.

The trunk-strap may be made of metal, leather, or any other suitable material, and all parts of the coupling will preferably be made of malleable iron, giving maximum strength with little weight and a neat appearance to the whole when in use.

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

1. The combination, in a trunk-strap coupling, of a plate secured at one end to one end of the trunk-strap, a straining-lever pivoted on the said plate to swing against the same, a locking-bolt adapted to engage the free end of

the lever when the latter is swung against the plate, and a detachable coupling-piece for establishing temporary connection between the opposite end of the strap and a point on the lever between its free end and pivot, substantially as described.

2. The combination, in a coupling for trunk-straps, of a plate formed with an integral buckle at one end for attachment of the plate to a strap, a straining-lever pivoted to the opposite end of the plate to be swung against the same, and a detachable coupling-piece for establishing connection between the lever and one end of the strap, substantially as described.

3. In a coupling for trunk-straps, the combination, with the plate having a recess in its under side, a slot or aperture in the top extending into the said recess, and a key-hole adjacent to the said recess, of a locking-bolt fitted in the recess, and a straining lever pivoted to the said plate to be swung against the same to be engaged by the locking-bolt, and means, substantially as described, for attaching the coupling to a trunk-strap, substantially as set forth.

4. In a trunk-strap coupling, the combination, with the plate formed with a buckle, a , having a cross-bar provided with stud a' , of the straining-lever D, pivoted to be swung against the plate, and the detachable coupling-piece G for establishing connection between the said lever and an end of the trunk-strap, substantially as described.

5. The combination, with the plate A, formed with integral buckle a , of a bolt, C, straining-lever D, formed with hook d and pivoted on the plate to be swung against the same, and a sliding ring E, substantially as shown and described.

6. In a trunk-strap coupling, the main plate adapted for connection with one end of a strap and formed with end lugs, a^3 a^3 , provided with permanent inwardly-projecting opposing pins a^2 a^2 , combined with a straining-lever having a hole, d' , into which the pins a^2 of the plate-lugs a^3 are entered, substantially as herein set forth.

7. In a trunk-strap coupling, the combination, with the main plate, of the lever constructed with flanges and pivoted to be swung against said plate, and a toothed adjustable catch-plate buckle whose teeth engage the flanged lever and whose opposite end is adapted to receive one end of the trunk-strap, as herein set forth.

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Witnesses:

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