

(No Model.)

O. J. BALDWIN.
BELT FASTENER.

No. 501,266.

Patented July 11, 1893.

Fig. 1.

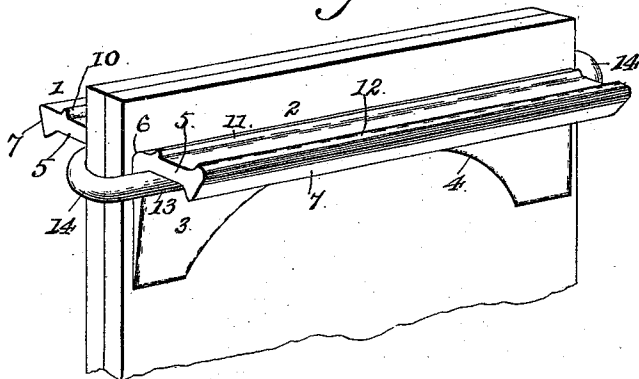


Fig. 2.

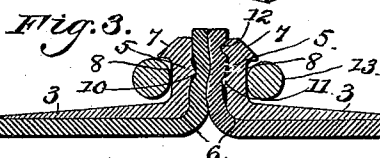
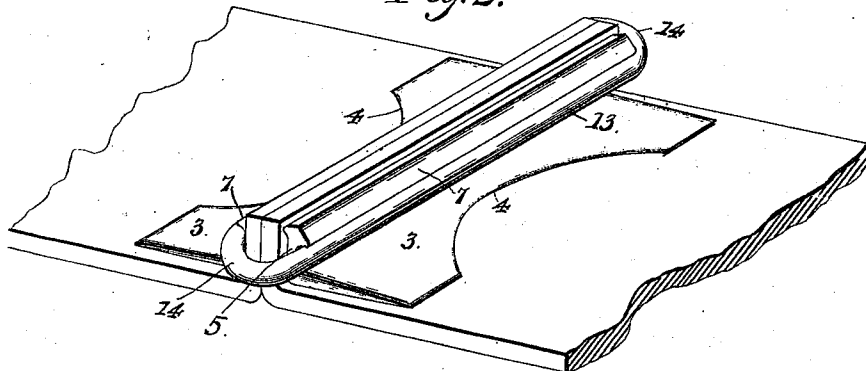
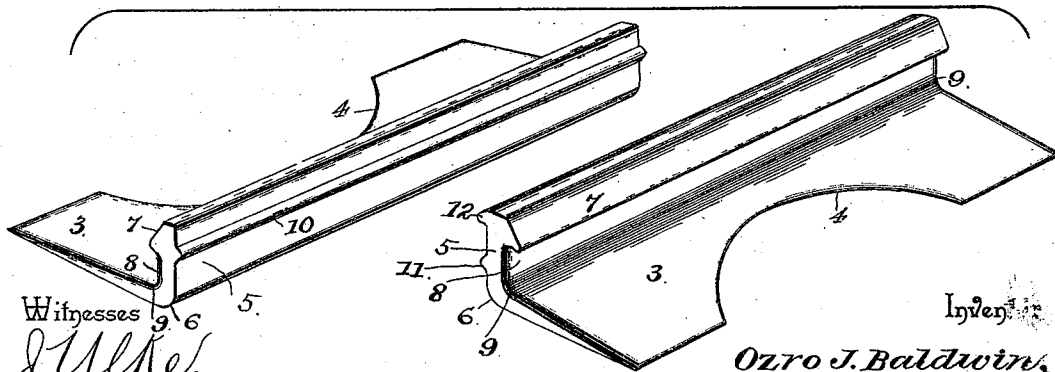


Fig. 4.



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UNITED STATES PATENT OFFICE.

OZRO J. BALDWIN, OF YOUNGSVILLE, ASSIGNOR OF ONE-HALF TO JOHN L. O'DONNELL, OF WARREN, PENNSYLVANIA.

BELT-FASTENER.

SPECIFICATION forming part of Letters Patent No. 501,266, dated July 11, 1893.

Application filed February 16, 1893. Serial No. 462,554. (No model.)

To all whom it may concern:

Be it known that I, OZRO J. BALDWIN, a citizen of the United States, residing at Youngsville, in the county of Warren and State of Pennsylvania, have invented a new and useful Belt-Clamp, of which the following is a specification.

This invention relates to belt clamps or fastenings and has for its object to provide a device of the character set forth that will avoid disintegrating or breaking of the belt at the point where it leaves the clamp and at the greatest point of tension or strain thereon.

With this and other ends in view, the invention consists in the construction and arrangement of the parts thereof as will be more fully hereinafter described and claimed.

In the drawings: Figure 1 is a perspective view showing the manner of applying the clamp to the belt. Fig. 2 is a similar view showing the parts of the clamp properly applied and firmly holding the ends of the belt together. Fig. 3 is a transverse vertical section of the clamping sections shown applied to a part of the opposing ends of a belt, the latter being in longitudinal section. Fig. 4 is a detail perspective view of the lever-grips or clamp-sections disconnected and separated from each other.

Similar numerals of reference indicate corresponding parts in the several figures of the drawings.

Referring to the drawings, the numeral 1 designates one lever-grip or clamp-section, and 2 a similar lever-grip or clamp-section, that slightly differ in construction, as will be hereinafter set forth. Each lever-grip or clamp-section is formed with a tail-extension 3, having a recess 4 therein in order to break the continuity of a binding edge across the surface of the belt; and further to facilitate handling the said lever-grip or clamp-section. Each lever-grip or clamp-section is also formed with a right-angular projection 5, that provides a jaw to grip the belt adjacent to the ends thereof and hold the belt-ends in contact with the grip or clamp sections. At the point where each of the right-angular projections 5 meet the tail-extensions 3, a gradual curve 6 is formed to avoid a cutting edge or projection, the said curved portion 6 being located at

the lower inner opposing corners of the grips or clamp-sections where the greatest point of strain is brought to bear on the connected ends of the belt. The upper ends or edges of the angular projections 5 are inclined or beveled, as at 7, and overhang the said angular projections at the outer parts of the latter to form grooves or recesses 8 that are rounded at the ends thereof, as at 9. Thus far, the construction of the lever-grips or clamp-sections is similar. The lever-grip or clamp-section 1 has a triangular rib 10, extending entirely across the same and at a slight distance below the top edge of the right-angular section with which it is formed. The lever-grip or clamp-section 2 is provided with two triangular ribs 11 and 12, arranged parallel, and extending entirely across the right-angular jaw with which they are formed and having an intervening space between the same. The rib 12 is located at the top of the jaw and the rib 11 below the level of the rib 10, carried by the lever-grip or clamp-section 1, in order that said rib 10 may be located intermediately of the ribs 11 and 12, when the two parts of the clamp are arranged in position for clamping. By this means the parts of the belt-ends passing between the jaws are held against movement by the angular arrangement of the said ribs 10, 11, and 12, and thereby prevented from slipping or from dragging from their clamped position. The single rib 10 will have the tendency to force the belt-ends over toward and in the space between the ribs 11 and 12, and cause the belt-ends to pass between the jaws in an irregular line. The grooves 8 receive a link 13, that is formed with rounded ends 14, and made large enough transversely to permit slight separation of the parts of the clamp for the purpose of inserting the belt-ends in position, but at the same time sustain a tight clamping action when the parts of the clamps are arranged to hold the belt-ends fastened. The rounded parts 9 of the said grooves bear against the rounded ends 14 of the link, and thereby conform to the contour of said link to avoid wear on the latter and also provide for a free unobstructed movement of the said link during the clamping action.

In applying the device, the belt-ends are

arranged as shown in Fig. 1, with the two parts of the clamp bearing against the surfaces of the opposite parts of the belt-ends on the exterior of the same, the link being in position over each of the clamp-sections or lever-grips. The belt is then drawn into horizontal position, as shown in Fig. 2, thereby forcing the jaws against the ends thereof and the tail-extensions 3 are caused to bear on the upper side of the opposite parts of the belt, the said parts being locked by the link 13, to thereby prevent separation of the belt-ends. The rounded ends 14 of the link also avoid exterior cutting edges or projections and the upper beveled ends of the jaws remove contacting surfaces or projections when the belt is traveling through an opening or small confined space, thereby avoiding dragging or wearing away of parts that would otherwise contact with said parts of the clamp if made perfectly straight or angular at these points.

The ribs 10, 11, and 12 are constructed with rounded engaging apices to prevent disintegration or abrasion of the parts of the belt-ends that they engage, and by this means the disadvantages of serrations or teeth are obviated. It will be observed that the ribs are all situated some distance above the curved part 6, and thereby biting of the parts of the clamp against the belt-ends adjacent to said parts 6 is avoided, which will further obviate any tendency toward injury of the said belt-ends at the points of greatest strain on the leather and where they pass out from the clamp into the main web of the belt.

In this class of devices as heretofore constructed, it has been the common practice to employ two clamping-sections having the inner oppositely-situated engaging faces of the same formed with a series of spurs, spikes, sharp-cornered serrations, and other penetrating projections that would integrate or pass into the belt ends and cause a weakness and ultimate breakage of the same. Further, there has also always been more or less exterior angular projection that would strike adjacent parts of bell-boxes, belt-openings, or adjacent objects and cut or wear away the same with considerable self-evident disadvantage. The present construction is intended to avoid these disadvantages with an increased facility

of coupling or fastening the two ends of a belt together.

Changes in the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having described the invention, what is claimed as new is—

1. In a belt clamp or fastening, the combination of two lever-grips or clamp-sections having angularly-disposed jaws, one of which has two ribs extending across the same and the other a single rib located in a plane intermediate of the aforesaid two ribs, and a link for connecting said lever-grips or clamp-sections, substantially as described.

2. In a belt clamp or fastening, the combination of two lever-grips or clamp-sections having angularly-disposed jaws, one of which has two ribs extending across the same and the other a single rib located between the aforesaid two ribs, said ribs having rounded engaging apices and the lower portions of said jaws being gradually curved and the ribs located some distance above the same, and round-ended link for connecting said lever-grips or clamp-sections, substantially as described.

3. In a belt clamp or fastening, the combination of two lever-grips or clamp-sections having angularly disposed jaws with upper beveled ends, one of said jaws having two ribs extending across the same and the other a single rib located between the aforesaid ribs, said ribs having rounded engaging apices and the sides of said jaws on the exterior of the same being formed with grooves, and the lower parts of the same being gradually curved and merging into tail-extensions with recesses therein, and a round-ended link fitted over said lever-grips or clamp-sections and arranged to be located in the grooves of the jaws thereof, substantially as described.

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

O. J. BALDWIN.

Witnesses:

J. H. SIGGERS,
B. A. WOOD.