

G. L. CRANDAL.
Buckle and Loop Fastening.

No. 206,298.

Patented July 23, 1878.

Fig. 1.

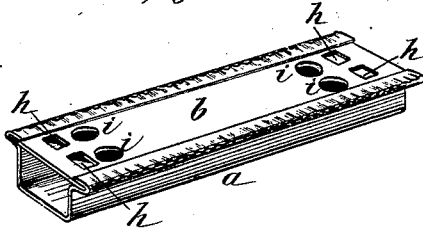


Fig. 2.

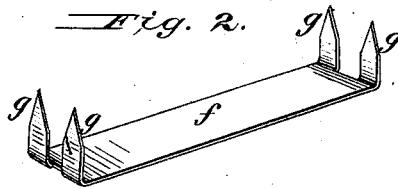


Fig. 3.

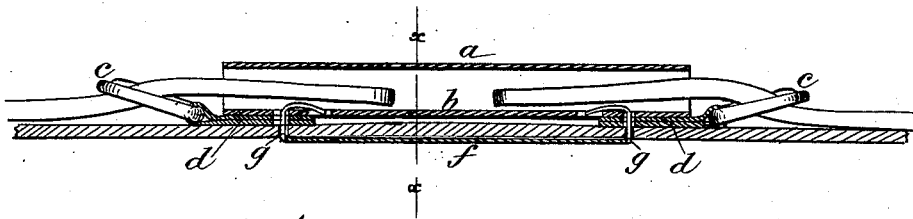


Fig. 4.

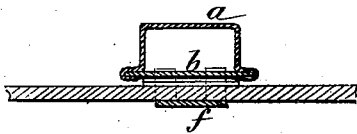
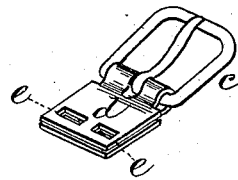


Fig. 5.



Attest:
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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN BUCKLE AND LOOP FASTENINGS.

Specification forming part of Letters Patent No. **206,298**, dated July 23, 1878; application filed June 13, 1878.

To all whom it may concern:

Be it known that I, GEORGE L. CRANDAL, of Binghamton, in the county of Broome and State of New York, have invented certain new and useful Improvements in Buckle and Loop Fastenings; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

My improved buckle and loop fastening is designed for use with the back and side curtains of a carriage and for harness, whereby the fastening strap or straps are buckled and the free end confined within the loop. In such devices the buckle has been hinged to a bottom plate compact and integral with a metallic loop, as in the patent of James Howey, March 8, 1848, No. 5,465, while in leather loops the buckle has been combined with and secured to its bottom by means of a separate lap-hinge piece. The state of the art shows also that a metal box loop and strap fastening has been secured in place by clinching spurs formed with and projecting from the loop-sides through slits in the leather or curtain, so as to avoid stitching, as in the patent of J. E. Ball, May 18, 1858, No. 20,246, and in such case the loop has no integral bottom plate. Nor is it new to secure the loop in place by means of a back plate; but, so far as I know and can find, such back plate has never been so used by means of integral clinching-points, and as a means for securing a separate lap-hinge piece for the buckle, in connection with a keeper or loop for the strap, and in which such fastening is effected directly within the box-loop.

In my improved device the loop and its bottom plate are in separate pieces, and united as described and claimed in a patent granted to me January 22, 1878, while the separate buckle lap-hinge is secured to the curtain or strap by means of a back plate having struck-up clinching-points, adapted to pass through slits in the curtain and corresponding openings in the separate buckle-hinge lap and loop-bottom, and be clinched inward upon said loop-bottom, thus not only involving a new construction in certain particulars of the sep-

arate old parts, but a new method of effecting their attachment as a complete device, whether the loop be of leather or metal.

Referring to the drawings, Figure 1 represents a bottom view of the loop as adapted for a buckle at both ends; Fig. 2, the back plate, with its clinching-points adapted for separate buckles at both ends of the loop; Fig. 3, a longitudinal section of the buckle and loop as applied for use in fastening the back and side curtains and confining their strap ends within the same loop; Fig. 4, a cross-section of the same, and Fig. 5 the buckle-hinge lap.

The loop *a* may be made of any suitable material, and with its bottom plate, *b*, either separate or integral. I prefer, however, to make the bottom plate separate, and unite it to the metallic loop by horizontal lap-sides, which, embracing the edges of the bottom plate, are secured thereto by corrugating the three-ply thicknesses or laps by a die adapted for the purpose, and as described in my said patent.

As shown in the drawings, my improved buckle and loop fastening is adapted for the fastening-straps of the back and side curtains.

The buckle *c* has its hinge formed in a separate lap-plate, *d*, the lapped ends of which are pierced with one or more cross-slits, *e*, as shown in Fig. 5. The back plate, *f*, is of a length nearly equal to that of the loop, and is provided with integral points *g*, stamped up at right angles to the plate, for the purpose of securing the buckles to the curtain or strap by passing through slits therein, and through cross-slits *e* in the separate lap-hinge plates *d*, and clinched over upon the same. The loop may be secured in proper relation to the buckle or buckles; but I prefer to utilize these back-plate integral clinching-points as the means of fastening the loop also by passing them through coincident cross-slits *h* in the loop-bottom plate, as shown in Figs. 1 and 3, as this plan renders the separate parts complete for attachment to the curtains or straps. When so applied, the integral plate-points *g* are clinched inward upon the bottom plate, and their ends are depressed below its surface by providing said bottom plate with holes *i*, corresponding in positions with the clinching-point ends, as shown in Fig. 3, and thus make a better and smoother clinch. Any suitable tool may be used for making this inward bend

and clinch of the back-plate points within the loop. All the parts are made and sold to the trade in separate pieces, as shown in Figs. 1 and 2.

By this construction it will be seen that the fastening of all the separate parts is effected by the clinching-points directly within the loop, instead of at the back of the curtain, and by means of a back plate, *f*, having integral clinching-points.

I claim—

1. In a buckle and loop fastening for carriage-curtains and harness, the back plate, *f*, having one or more integral clinching-points, *g*, in combination with separate lap-hinge plates *d*, having cross-slits *e*, corresponding with said clinching-points, for the purpose of securing the buckle in proper relation to the loop.

2. The combination, with a back plate, *f*, having integral clinching-points *g*, of the sep-

arate buckle lap-hinge plate *d* and the loop *a*, both the latter having cross-slits *e h*, coincident with said clinching-points, when secured to the curtain or strap by an interior clinch fastening all, substantially as herein set forth.

3. The bottom plate of the box-loop, provided with the cross-slits *h* and the holes *i*, in combination with the back plate *f* and its integral clinching-points *g*, for the purpose stated.

4. The combination, with a buckle-loop having a separate bottom plate secured thereto, as described, of the back plate and the buckle-hinge laps, secured to said loop-bottom plate, in the manner described.

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

GEO. L. CRANDAL.

Witnesses:

A. E. H. JOHNSON,

J. W. HAMILTON JOHNSON.