I.M. Plotts

Nº52,597.	Buckle Patentea	7 Feb. 13, 1866.
Fig. 1.		Fig. 2.
Fig 3 N.1.		Fig. A. M2
Fig. 5. N. 3.		Fig. C. N. 4
Fig. Y. ms.		Fig. 8. 116.
Witnesses: M. M. Limpha	Fig.11	Inventor
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UNITED STATES PATENT OFFICE.

I. N. PLOTTS, OF NEW YORK, N. Y.

IMPROVEMENT IN BUCKLES.

Specification forming part of Letters Patent No. 52,597, dated February 13, 1866.

To all whom it may concern:

Be it known that I, I. N. Plotts, of New York city, have invented new and useful Im provements in Buckles or Belt-Clasps; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to certain improvements on a buckle or belt-clasp for which Letters Patent of the United States were issued to me on the 7th day of November, 1865.

The nature of the present inventions consists in setting or raising the inner edges of the bars of the buckle above the plane of the face of the buckle, so as, when the strap is drawn taut, to produce a sharp bight or bend of the straps under the side strips of the frame of the buckle; also, in setting or depressing the inner edge of the side strips of the buckle-frame below the plane of the under side of the buckle to effect a similar purpose; also, in attaching to or forming upon the inner edge of the side strips a projecting lip or lips, over the edges of which the straps pass, by which construction of the buckle, whether the above features be used separately or conjointly upon the single or duplex buckle, its bite upon the strap or straps is firmer and more secure, and the possibility of the strap slipping is entirely precluded, and this without in the least impairing the qualities co the buckle for permitting the straps to be quickly and easily tightened up or released from the buckle.

The several features of my invention are illustrated in the accompanying drawings, in

Figure 1 is a front view of my duplex buckle, showing its application to its straps. Fig. 2 is a front view of my single buckle, showing its application to its straps. Fig. 3 is a transverse section of a duplex buckle, showing the inner edges of both longitudinal bars thrown upward or raised above the plane of the face of the buckle, also showing a projecting lip, substantially the same as was shown in my aforesaid patent, formed on the outer edges of the sides of the buckle, designated on the drawings No. 1. Fig. 4 is a transverse section

of the single buckle, showing one edge of its central bar raised or thrown upward, as in the preceding duplex example, and a lip, such as was shown in my aforesaid patent, on the outer edge of the side which receives the loose strap, designated No. 2. Fig. 5 is a transverse section of the duplex buckle, showing the inner edges of its longitudinal bars thrown upward toward each other—that is, at right angles in opposite directions to each other—and having also the inner edges of the side strips of the frame bent or depressed downward. (On this buckle the lips are not shown, the projecting edges of the side answering the purpose of lips, designated No. 3.) Fig. 6 is a transverse section of the single buckle, showing one edge, its longitudinal bar raised or thrown upward, and the inner edge of one side of the frame (that next the loose strap) depressed or thrown down, so as to answer the purpose of a lip, designated No. 4. Fig. 7 is a transverse section of Fig. 1, showing the inner edges of the longitudinal bars raised or thrown upward toward each other, and the frame grooved or curved all around, thus providing good bitingedges on both side strips of the frame of the buckle, designated No. 5. Fig. 8 is a transverse section of Fig. 2, showing the edge of the bar thrown upward and the frame grooved all around, as in Fig. 7, designated No. 6. Fig. 9 is a transverse section of the duplex buckle, showing the inner edge of its longitudinal bar raised or thrown upward and lips formed on the inner edges of the side strips of the frame, designated No. 7. Fig. 10 is a transverse section of the single buckle, showing its bar raised or thrown upward and a lip formed on the inner edge of the side nearest the loose strap, as No. 7, designated No. 8. Fig. 11 is a view showing in detail the lips milled, serrated, toothed, or in any manner roughened to give them a tight hold upon the strap.

Similar letters of reference indicate corre-

sponding parts.

The buckle is made, in its principal features, the same as that which formed the subject of the patent granted to me, before alluded to, A A' being the plate or frame of the buckle, and B the longitudinal bar or bars left after removing the pieces to form the slots a a'.

The two distinct features of the present im-

provements are, first, setting, throwing up or down, or raising and depressing the longitudinal bars B of the buckle, as well as depressing one or both edges of the side strips, A', of the frame in such manner that an edge, b, will be presented to the strap for a biting surface, which will enable the buckle to have a better hold upon the strap, and entirely overcomes the liability of the strap slipping, as can readily be seen, and this whether used on the duplex or single buckle; second, in attaching to or forming upon the inner edge of the side strips of the buckle a lip, for a similar purpose as the lip shown on the outer edge of the buckle already patented to me..

The lips I propose to attach to or form upon the buckle are designated by the letters c'. Those marked c are the same as those shown in my previous patent. Those c' are placed on the inner edges of the side strips of the buckle—that is, they project out at about right angles to the plane of the under side of the buckle-plate. The edges of the lips, as well as the raised edges on the bars and depressed edges of the side strips, may be milled, serrated, toothed, or otherwise roughened, as shown in Fig. 11, to give a better hold upon the strap in cases where the strap or band would sometimes be held in a loose or unten-

sioned condition. By the addition of these improvements in both the duplex and single buckle I obtain excellent results in the firmness of the biting

and remove all the objections which may be urged against the buckle struck out of a flat plate when the straps are dependent upon the friction against the edge of the bars and sides of the frame for keeping them always taut. With a buckle as shown in any of the figures all and every objection of this kind is removed, and I produce a buckle by which the straps or bands can be tightened up or loosened quickly and easily, and which will be secure against slipping or the like.

What I claim as new, and desire to secure

by Letters Patent, is-

1. Setting, twisting, turning, or stamping the bars B and side strips, A', of the buckle at any desired angle or angles, substantially as described.

2. Attaching to or forming upon the inner edges of the under surface of the side strips A' of the buckle lips e', substantially as and

for the purpose specified.

3. In a buckle of substantially the character described, milling, serrating, or otherwise roughening the edges of the lips c c', as well as the raised edges of the bars and depressed edges of the side strips, substantially as and for the purpose specified.

The above specification of my invention signed by me this 13th day of December, 1865.

I. N. PLOTTS.

Witnesses:

्रास्तर को जिसे के राष्ट्रियों के राष्ट्रास कर है। उस राज्य के स्थान के स्थान के स्थान के स्थान की स्थान की स् इस राज्य के लिए के स्थान की स्थान की स्थान समिति है। इस साथ पूर्वता की समिति की स्थान की है। अपने स्थान स्थान कि कि को समिति के स्थान की स्थान की है। अब की स्थान की स्थान की समिति की समिति की समिति की स्थान की स्थान की स कि को समिति की समिति की समिति की समिति की स्थान की समिति की समिति की समिति की समिति की समिति की समिति की समिति

M. M. LIVINGSTON, C. L. TOPLIFF.