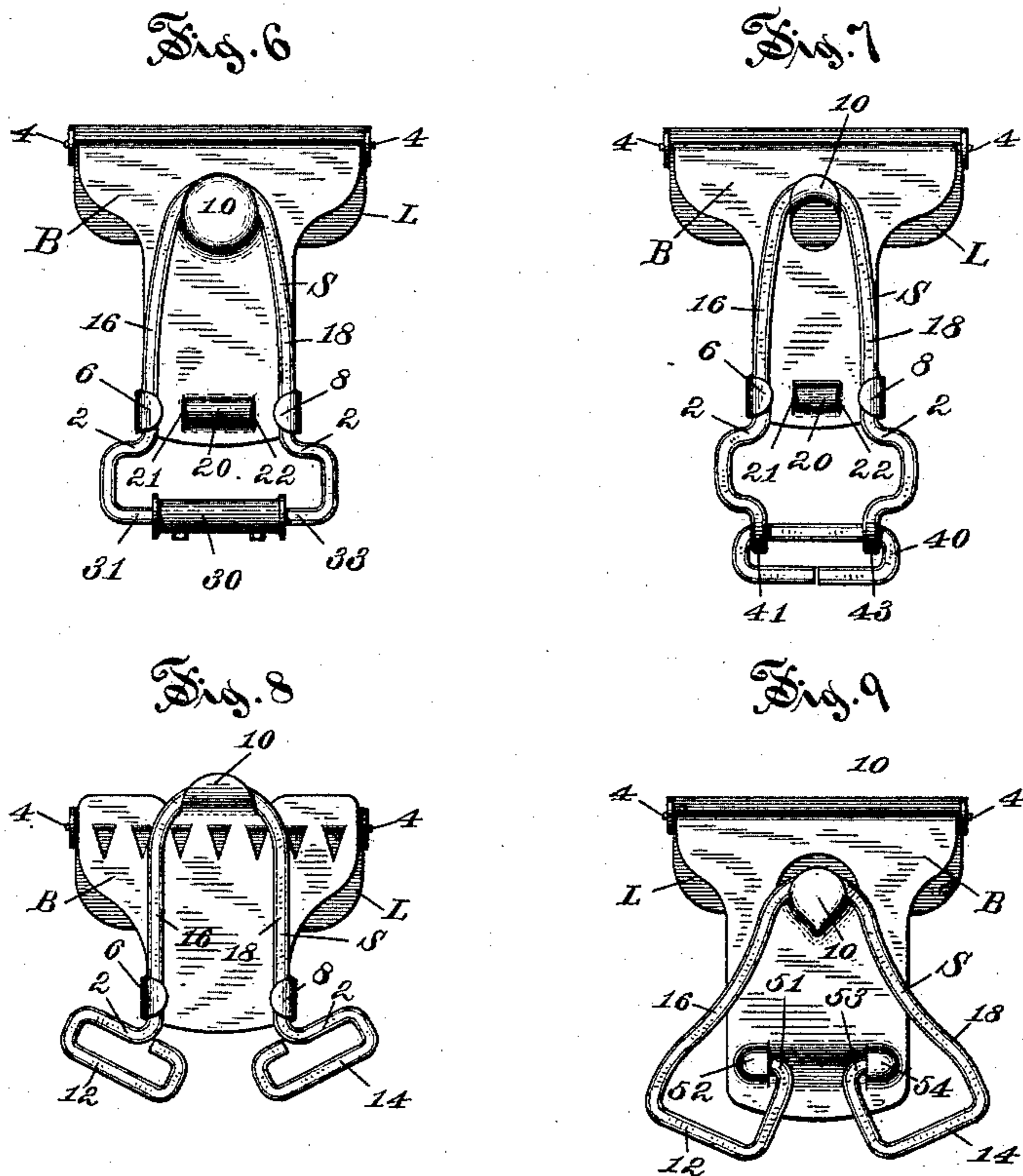
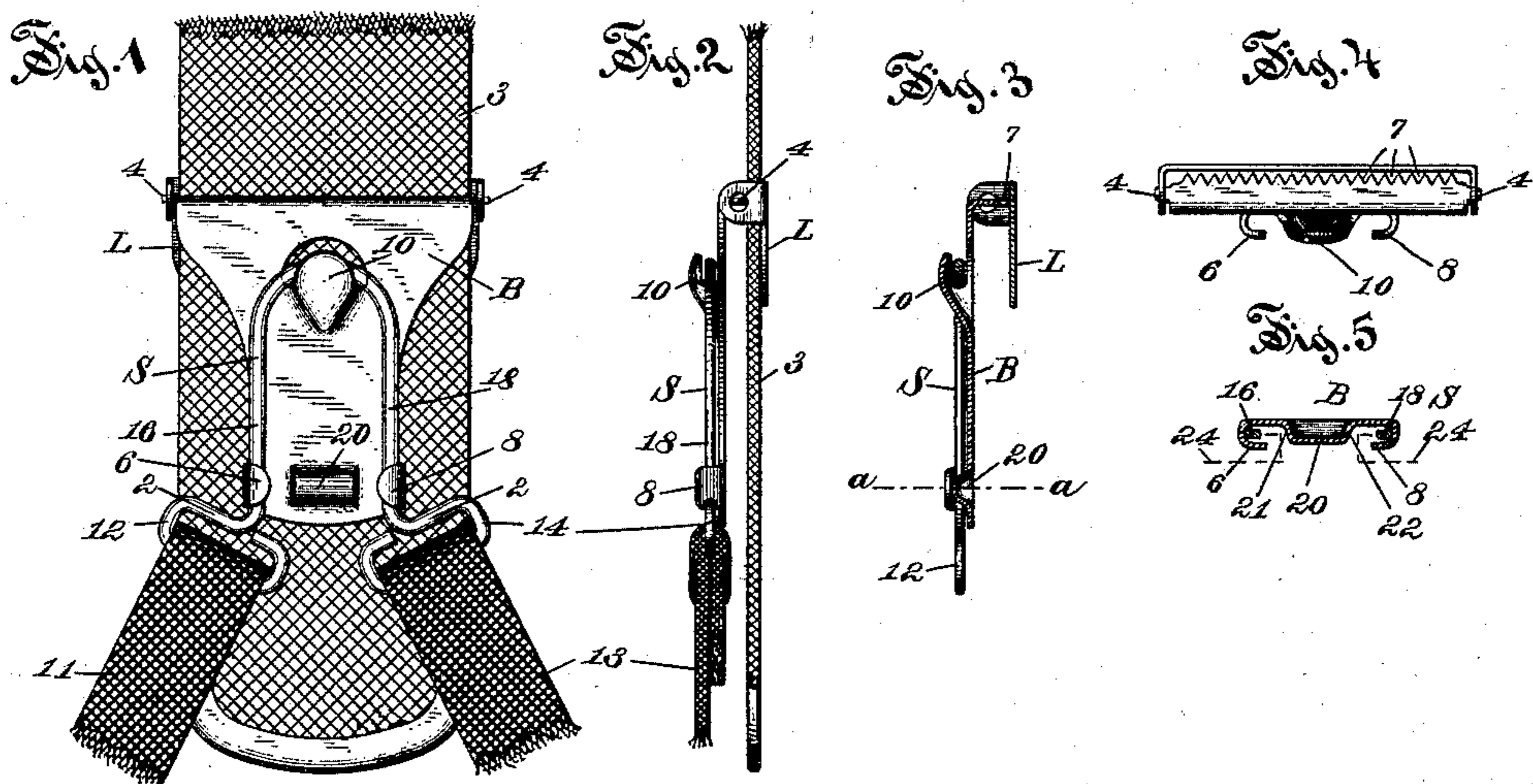


(No Model.)

F. H. RICHARDS.
SUSPENDER BUCKLE.

No. 434,886.

Patented Aug. 19, 1890.



Witnesses:

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Inventor:

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UNITED STATES PATENT OFFICE.

FRANCIS H. RICHARDS, OF HARTFORD, ASSIGNOR TO THE TRAUT & HINE
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SUSPENDER-BUCKLE.

SPECIFICATION forming part of Letters Patent No. 434,886, dated August 19, 1890.

Application filed May 1, 1890. Serial No. 350,232. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS H. RICHARDS, a citizen of the United States, residing at Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Buckles for Suspenders, of which the following is a specification.

This invention relates to buckles for suspenders, and to that class of said buckles having cast-offs, the object being to provide a buckle of that class simple in construction, cheaply manufactured, and readily operated.

In the drawings accompanying and forming a part of this specification, Figure 1 is a front or side view of a buckle embodying my improvements. Fig. 2 is an edge view of the same. Fig. 3 is a longitudinal section through the middle of the buckle. Fig. 4 is a top view of the buckle, showing the hanger removed. Fig. 5 is a section in line *a a*, Fig. 3. Fig. 6 is a front view of one modification of the buckle. Figs. 7, 8, and 9 are similar views of other modifications in the construction of the buckle.

Similar characters designate like parts in all the figures.

The buckle-plate B is provided with the usual holding-teeth 7 for engaging the web 3 of the suspender, with means, as the "lever" L, for clamping the web 3 in engagement with said teeth to secure the plate B to said web, with means for carrying the usual straps, and with suitable pivots 4 for carrying the usual lever or clamp L.

The construction of the part B will be understood from the drawings by Figs. 1 to 5, inclusive. At the lower end of the plate B there are oppositely-disposed catches or hooks 6 and 8 for engaging the detachable hanger S, which is suspended from a hook 10 at the upper end of the plate B. The lower ends of the hanger S are formed with loops, as 12 and 14, Figs. 1, 2, and 3, for carrying the straps 11 and 13, or are provided with other means therefor—as, for instance, in Figs. 6 and 7. The hanger S being elastic, to operate the "cast-off" it is only necessary to close toward each other the loops 12 and 14 to unhook the sides 16 and 18 of the hanger from the hooks 6 and 8, respectively, when the hanger is free

to be taken off from the hook 10 and removed from the buckle-plate.

As a means for controlling the closing toward each other of the sides 16 and 18, to facilitate removing the hanger, I provide a stop 20, located between the hooks 6 and 8. The ends of said stop are preferably made abrupt, as at 21 22, so that on striking said ends the sides 16 and 18 naturally remain there until drawn forward, which latter movement brings them outside of the line of said hooks 6 and 8, so that on springing apart again the sides 16 and 18 come outside of these hooks. This will be readily understood from Figs. 1 and 5, in the latter of which views the dotted lines 24 indicate the path of the hanger ends during the operating of them to take off the hanger.

The stop 20 may be of any suitable construction and separable or integral with the plate B; but the best construction thereof I consider to be that illustrated in the drawings, wherein a portion of the plate B is shown struck up or formed into an elevation curved in its cross-sectional outline, as in Fig. 3, and terminating abruptly at the ends, as indicated in Figs. 1 and 5.

When the hanger is fully hooked in place, as in Fig. 1, the upper sides or bends 2 of the loops 12 and 14 come close underneath or contiguous to the hooks 6 and 8, respectively, and thus serve as a lock for the hanger, to prevent the same being taken off from the hook 10 without previously having been unhooked from said side catches 6 and 8. This feature gives additional reliability, since the downward strain of the straps is not depended upon to keep the hanger in engagement with its said suspension-hook.

The modification shown in Fig. 6 is more fully described and is claimed in my application, Serial No. 350,233, filed May 1, 1890, to which reference may be had. In this modification the straps are to be attached to the thimble 30, which is carried on the inwardly-bent lower ends 31 and 33 of the hanger S; also, the suspension-hook 10 is specifically of a different construction.

The modification shown in Fig. 7 is more fully described and is claimed in my application, Serial No. 350,234, filed May 1, 1890, to

which reference may be had. In this modification the straps are to be supported by the link 40, carried by the loop-shaped lower ends 41 and 43 of the hanger S; also, the hook 10 is of a construction specifically different from that of said hook in either of the preceding forms.

The modification shown in Fig. 8 is more fully described and is claimed in my application, Serial No. 350,235, filed May 1, 1890, to which reference may be had. In this modification the straps may be secured to loops 12 and 14, formed on hanger S, as in Fig. 1; or the lower ends of said hanger may have, instead of said loops, the strap-supporting devices shown in Fig. 6 or in Fig. 7. The suspension-hook is here shown formed on the upper edge of the plate B, whereby the buckle is conveniently made of less height than in the other forms thereof.

The modification shown in Fig. 9 is more fully described and is claimed in my application, Serial No. 350,237, filed May 1, 1890, to which reference may be had. In this modification the hanger S does not have the loops 12 and 14 fully formed, as in Figs. 1 and 8, but has the ends 51 and 53 thereof upward and outwardly bent to engage the sockets or catches 52 and 54, respectively, which sockets may be formed in the plate B by suitably cutting and swaging the same, as indicated by the conventional line-shading of said parts. The suspension-hook may in this modification be such as shown in Figs. 1 and 9, or may be either of those shown in Figs. 6, 7, and 8.

Having thus described my invention, I claim—

1. In a buckle, the combination, with the buckle-plate having a suspension-hook and having the catches below said hook, of an elastic hanger, substantially as described, carried

by the suspension-hook and adapted to engage said catches, said hanger having means for the attachment thereto of the straps.

2. In a buckle, the combination, with the buckle-plate having the suspension-hook and oppositely-disposed catches below said hook, of the elastic hanger carried on said hook and engaging said catches, said hanger having the bends 2 formed therein contiguous to the lower side of said catches, whereby said bends serve to lock the hanger in place on the suspension-hook and against vertical movement.

3. In a buckle, the combination, with the buckle-plate having the suspension-hook and oppositely-disposed catches below said hook, of the elastic hanger carried on said hook and engaging said catches, and the stop located on the buckle-plate between said catches for limiting the closing of the hanger.

4. In a buckle, the combination, with the plate B, having the suspension-hook and the catches 6 and 8, of the elastic hanger S, having strap-supporting loops 12 and 14 constructed to lock under said catches.

5. In a buckle, the combination, with the buckle-plate having means for securing the same to the suspender-web and having a suspension-hook formed of a part of the middle portion of the plate thrown forward of the plane of the plate, of side catches, substantially as described, below said hook, and the elastic hanger engaging the hook and engaging between said catches, said hanger having strap-carrying bends or loops, substantially as described, engaging under the catches for holding the hangers against vertical movement.

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