

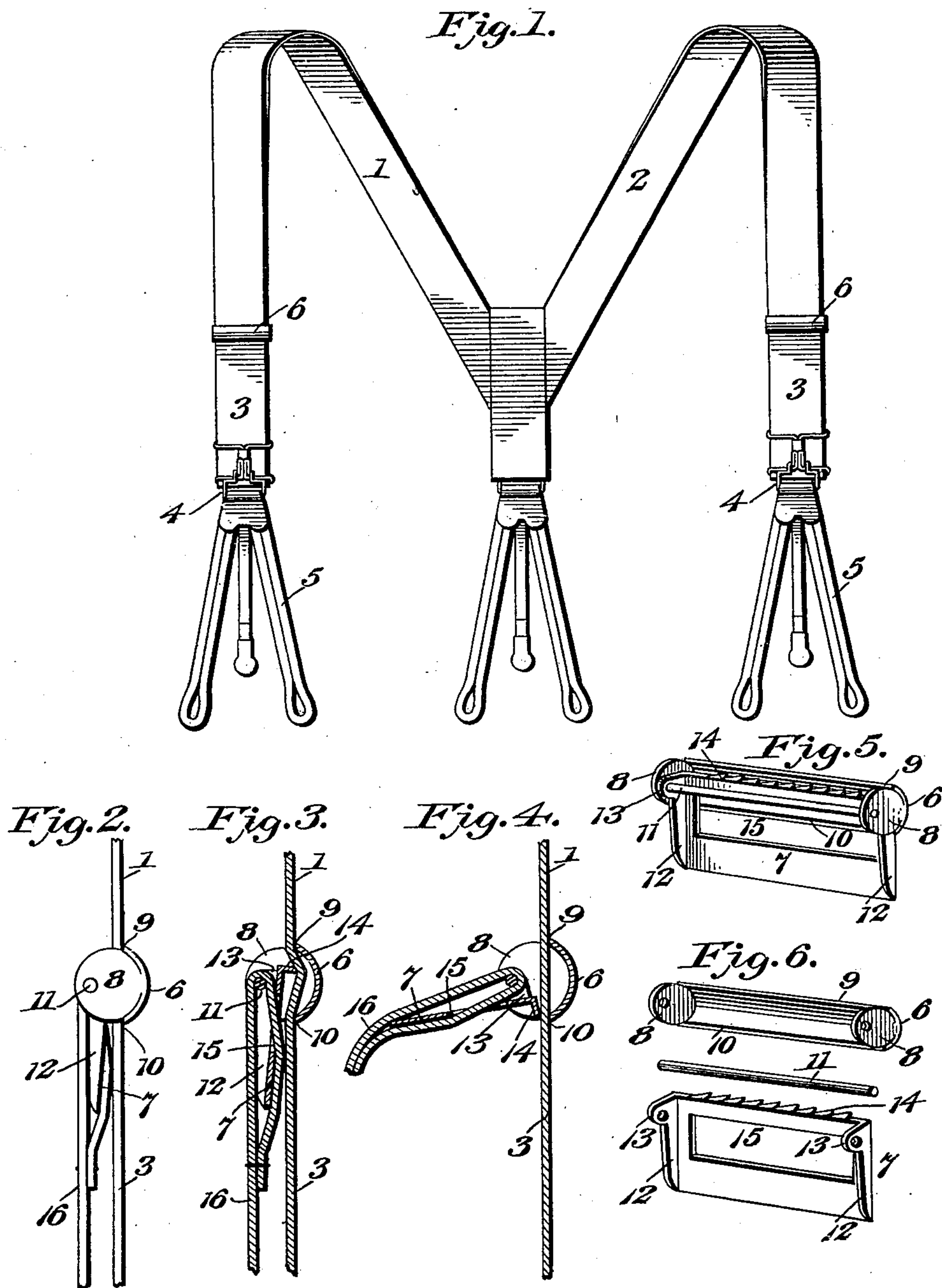
No. 666,770.

Patented Jan. 29, 1901.

A. R. MILLER.
SUSPENDER BUCKLE.

(Application filed Oct. 12, 1900.)

(No Model.)



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UNITED STATES PATENT OFFICE.

ASBURY R. MILLER, OF LOCK HAVEN, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO HARRY H. WILSON, OF SAME PLACE.

SUSPENDER-BUCKLE.

SPECIFICATION forming part of Letters Patent No. 666,770, dated January 29, 1901.

Application filed October 12, 1900. Serial No. 32,864. (No model.)

To all whom it may concern:

Be it known that I, ASBURY R. MILLER, a citizen of the United States, residing at Lock Haven, in the county of Clinton and State of Pennsylvania, have invented a new and useful Suspenders-Buckle, of which the following is a specification.

This invention relates to a novel suspenders-buckle and to the novel manner of mounting the same upon the web, the object being to produce a buckle of simple and inexpensive construction which may be operated by the manipulation of the web alone and which will present no metal surface to the garment over which the suspenders is worn, to the end that the soiling of the garment by contact with the buckle will be prevented and the possibility of the tarnishing or rusting of the latter through the action of perspiration will be entirely precluded.

To the accomplishment of this object and others subordinate thereto, as will hereinafter more fully appear, the invention consists in the construction and arrangement to be described, illustrated, and claimed.

In the accompanying drawings, forming a part of this application, Figure 1 is a perspective view of a suspenders equipped with my buckle. Fig. 2 is a side elevation of one of the end loops of the suspenders, showing the application of the buckle. Fig. 3 is a longitudinal section of the subject-matter of Fig. 2. Fig. 4 is a similar view with the parts of the buckle positioned to permit the web to slide freely therethrough for the purpose of effecting the adjustment of the end loop. Fig. 5 is a perspective view of the buckle detached, and Fig. 6 is a detached view of the buckle with its members disorganized.

Referring to the numerals of reference employed to designate corresponding parts throughout the views, 1 and 2 indicate the webs of the suspenders, 3 the end loops, and 4 the suspending-buckles sustaining the tabs members 5.

So far as the present invention is concerned the suspending-buckles may be of any form;

but I have illustrated a type of buckle which has been made the subject-matter of my concurrent application, Serial No. 32,865.

The ends of the webs are turned back to form the loops 3 and are adjustably secured against the rear side or back of the web by means of a novel buckle, which constitutes an embodiment of the present invention. This buckle comprehends two cooperating members, one of which I shall designate as the "front plate" 6 and the other as the "clamping-lever" 7. The plate 6 is stamped or otherwise formed from sheet metal and is provided at its opposite ends with integral bearing-ears 8 of somewhat more than semicircular form and bent into parallel relation, as shown. The plate proper is bent to impart a transverse curvature or convexity thereto, and those portions of its opposite sides which extend beyond the juncture of the plate and bearing-ears are bent down upon the edges of the latter and may be attached thereto, as by soldering or otherwise. Ordinarily, however, such attachment is not necessary, and, in fact, may be undesirable in view of the fact that the side edges 9 and 10 of the plate 6 constitute bearing-points opposed to the web of the suspenders in a manner to be described, and it may therefore be advantageous to permit them to have slight spring action. The bearing-ears 8 are designed for the retention of a pivot-bar 11, having its opposite ends secured in the ears and located in a horizontal plane slightly above the horizontal center of the plate 6. The bar 11 is designed to constitute a pivotal mounting for the clamping lever or plate 7, which is provided with end flanges 12, disposed in parallel relation and extending across the end edges of the plate, at the upper edge of which they are extended to form bearing-ears 13, pierced by the pivot-rod 11.

In the normal position of the device the flanges 12 and ears 13 of the clamping member extend rearwardly, and from the upper edge of said member are bent a series of teeth 14, which, it will be noted, are normally located in a horizontal plane above the pivot-

bar and are extended slightly within the concavity of the plate 6 at a point somewhat nearer the upper edge thereof.

15 indicates an elongated opening or slot extending horizontally or longitudinally across the clamp-plate, as shown.

This, then, is the form of the adjusting-buckle, and by an examination of Figs. 1, 2, 3, and 4 of the drawings the manner of its mounting or application will be readily observed. The web of the suspender is first passed between the plate 6 and the clamping member, which latter, in order that this may be done, is thrown to the open position illustrated in Fig. 4, the teeth 14 being thus removed from interference with the web as it is thus drawn through. The extremity of the web is now turned back to form the loop 3, whose rear side portion 16 is passed behind the pivot-bar 11, and it is then passed through the slot 15 in the clamping plate or lever and is permanently attached to the side portion 16 of the end loop 3 at a point below the edge of the clamping member. It will now appear that strains in opposite directions upon the web at a point above the buckle and upon the end loop 3 at a point therebelow—such strains, for instance, as are normally produced in use—will cause the teeth 14, engaging the web, to be swung upwardly and into the concavity of the plate 6 until further movement of the clamping member is prevented by the front portion of the end loop. This position of the parts is shown in Fig. 3, and it will be noted that the web is retained between three bearing-points which are dis- lined—to wit, the upper and lower side edges 9 and 10 of the front plate 6 and the intermediate teeth 14 of the clamping member. If now it is desired to adjust the end loop, it is simply necessary to spread the latter slightly for the purpose of swinging the lower end of the clamping member rearwardly a sufficient distance to withdraw the teeth 14 out of en- gagement with the web, which latter may then be drawn freely through the buckle and thereafter automatically gripped as soon as the device is subjected to the normal strains to which reference has been made.

Inasmuch as both this buckle and that disclosed in my concurrent application before mentioned have been designed with special reference to the protection of their metal parts, it will be observed that by reason of the peculiar manner of attaching the web to the buckle no portion of the latter will be permitted to come into contact with the shirt or other garment over which the suspenders are worn, and, further, that by reason of the curvature of the plate 6 the latter will not present any abrupt edges upon which any portion of the garments of the wearer might be caught.

While the present embodiment of my in- vention appears at this time to be preferable, I do not limit myself to the precise construc-

tion herein defined, as it is obvious that many changes, modifications, and variations in matters of both form and arrangement might be effected without departing from the spirit of the invention.

What I claim is—

1. A garment-suspender provided with a loop and an adjusting-buckle composed of a front plate slidable upon the suspender, and a clamping-lever having pivotal connection with the plate and covered by the rear side of the loop to prevent contact of the buckle with a garment over which the suspender is worn.

2. A garment-suspender provided with a loop and an adjusting-buckle composed of a front plate and a clamping-lever, the rear face of said clamping member being entirely covered by the rear side of the suspender-loop, and said lever being provided with a projection in coöperative relation to the front plate of the buckle to clamp the web of the suspender and thereby retain the loop in its adjusted position.

3. A garment-suspender provided with a loop and an adjusting-buckle composed of a front plate and a clamping-lever, said lever being mounted upon a pivot-bar and provided with a transverse slot, the extremity of the rear side of the suspender-loop being carried around the pivot-bar, through the slot in the lever and secured to form a terminal loop-covering and protecting the rear face of the buckle to prevent contact of the latter with the garment over which the suspender is worn.

4. A garment-suspender provided with a loop and an adjusting-buckle composed of a front plate having a transverse curvature and provided with terminal bearing-ears, and a clamping-lever pivoted between said ears, said clamping-lever being of plate form and provided at one edge with projections and also provided with an elongated slot, the rear side of the suspender-loop being extended to completely cover the rear side of the clamping member and looped through the slot of said member to facilitate the manipulation of the buckle through the medium of the suspender.

5. A garment-suspender provided with a loop and an adjusting-buckle composed of a front plate having a transverse curvature and terminal bearing-ears, a pivot-bar extending between said ears, and a clamping-lever having the form of a slotted plate provided along one longitudinal edge with engaging teeth and formed at its end edges with flanges extended to form bearing-ears pierced by the pivot-bar, the rear side of the suspender-loop being provided with a terminal projecting loop inclosing the pivot-bar and a portion of the lever, whereby the rear side of the suspender-loop constitutes a covering for the rear side of the buckle to prevent contact of the latter with the garment over which the suspender is worn.

6. A suspender-buckle comprising a transversely curved front plate having terminal bearing-ears, a pivot-bar extending between the ears, and a clamping member in the form
5 of a plate provided with teeth extending in one direction from one edge thereof, and bearing-ears extending in an opposite direction and mounted upon the pivot-bar.

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

A. R. MILLER.

Witnesses:

JOHN H. SIGGERS,
EDWIN E. VROOMAN.