

No. 693,101.

Patented Feb. 11, 1902.

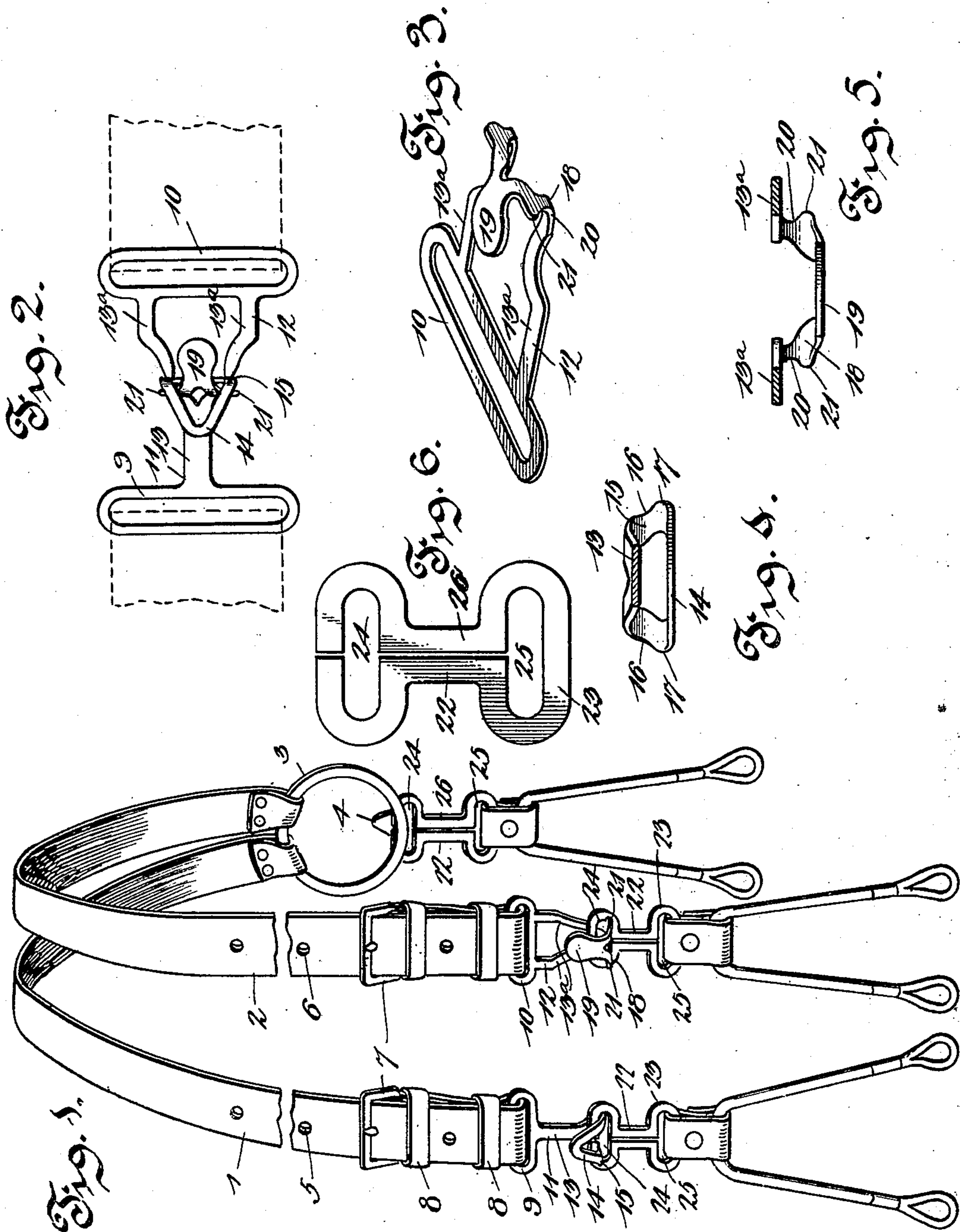
H. J. BLOOMER.

INTERCHANGEABLE SUSPENDERS AND BELT.

(Application filed Feb. 15, 1901.)

(No Model.)

2 Sheets—Sheet 1.



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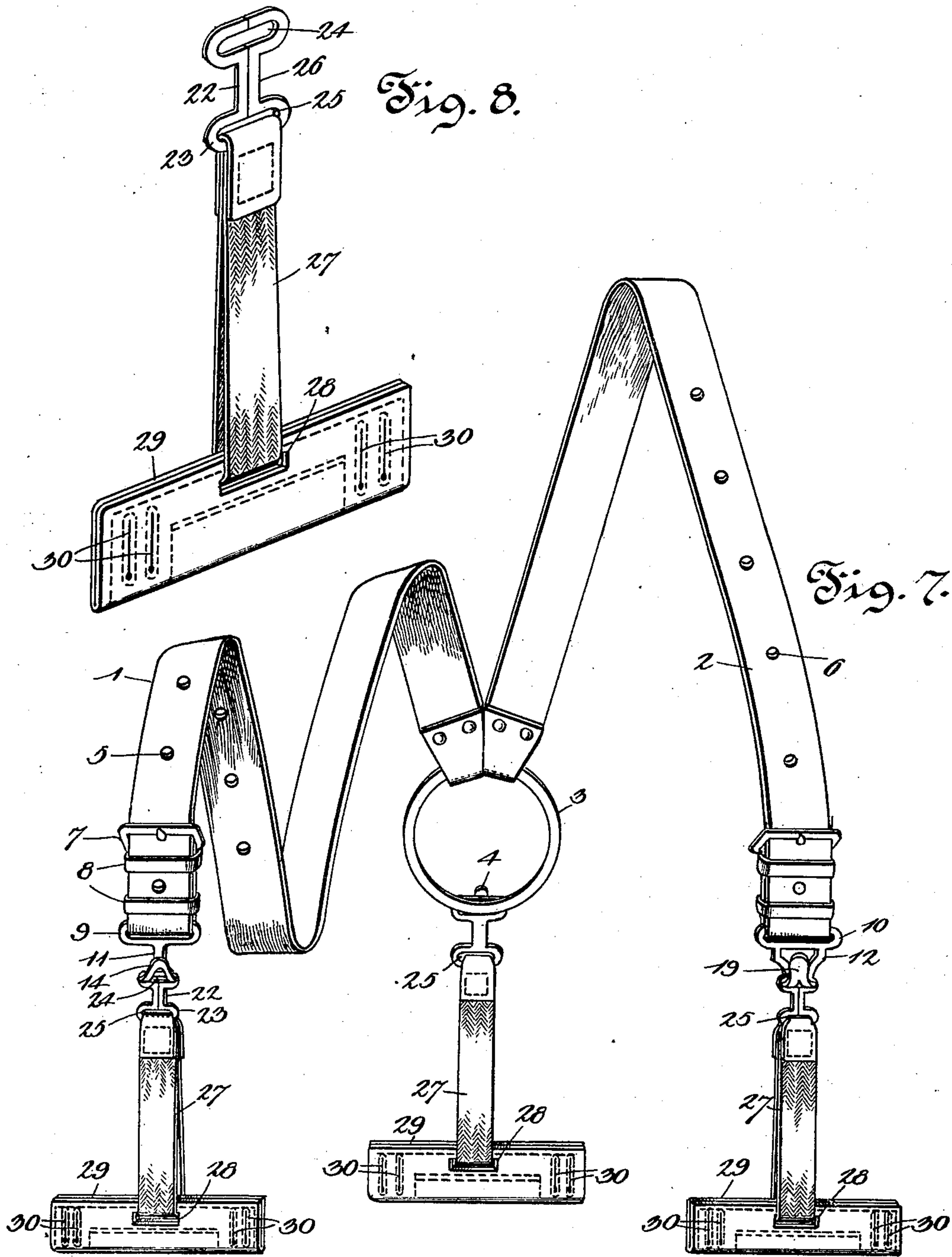
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Witnesses

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# UNITED STATES PATENT OFFICE.

HOWARD J. BLOOMER, OF NORWALK, CONNECTICUT.

## INTERCHANGEABLE SUSPENDERS AND BELT.

SPECIFICATION forming part of Letters Patent No. 693,101, dated February 11, 1902.

Application filed February 15, 1901. Serial No. 47,483. (No model.)

*To all whom it may concern:*

Be it known that I, HOWARD J. BLOOMER, a citizen of the United States, residing at Norwalk, in the county of Fairfield and State of Connecticut, have invented new and useful Interchangeable Suspenders and Belt, of which the following is a specification.

This invention relates to a combined suspender and belt; and the object of the same is to supply a device which will be capable of a dual use and quickly convertible from one form of device to the other without materially changing the arrangement of the necessary parts and maintaining them in close movable relationship and having a readily-understood operation.

The invention consists in the construction and arrangement of the several parts, which will be more fully hereinafter described and claimed, and particularly presenting an improvement on the device disclosed by Patent No. 641,068, granted to me January 9, 1900.

Figure 1 is a perspective view of the improved device arranged as a pair of suspenders. Fig. 2 is a front elevation of the combined suspender-end hangers and clasps shown connected as clasps for a belt arrangement of the suspender-webs, as shown in dotted lines. Fig. 3 is a detail perspective view of one of the combined hangers and clasps. Fig. 4 is a horizontal section through the suspending-hook portion of one of the combined hangers and clasps. Fig. 5 is a similar section through the other combined hanger and clasp. Fig. 6 is a detail elevation of one of the connectors on an enlarged scale. Fig. 7 is a perspective view of the combined device, showing a modified form of suspender-end. Fig. 8 is a detail perspective view of the modified form of suspender-end.

Similar characters of reference are employed to indicate corresponding parts in the several views.

The numerals 1 and 2 designate opposite independent strap members of any suitable dimension and material and have free movable connection to an intermediate coupling 3, provided with a lower attaching-hook or analogous device 4. The straps 1 and 2 are each provided with aligned holes or punctures 5 and 6 near the front extremities, and to the front terminals of said straps adjusting-

buckles 7 are secured to adapt said straps to be looped or doubled, as shown by Fig. 1, and changed in length to arrange them for the dual purpose they are intended to serve. On the doubled strap extremities slide-loops 8 are adjustably fitted to confine the elongated loops 9 and 10 of combined hangers and clasps 11 and 12, which are carried at the front portions of the straps. From the center of the loop 9 an intermediate bar 13 extends and terminates in an outstanding open inverted-V-shaped bill or hook 14, and, as clearly shown by Fig. 4, the said hook or bill gradually broadens toward the bend 15 thereof. The outer edges of the bend 15 are formed with recesses 16 to decrease the width of the said bend, and outward from said recesses the bend has well-defined projections 17. From the loop 10 a pair of intermediate bars 13<sup>a</sup> depend and have an open space between them and are inwardly contracted toward a bend 18 at the base of a solid bill or hook 19, the open space between the bars 13<sup>a</sup> being continued through the said bend. The outer edges of the bars 13<sup>a</sup> where they pass through the bend formation are provided with recesses 20, and outward from the same are decided projections 21. The recesses 20 in this instance also reduce the longitudinal extent of the bend 18, and it will be understood that the said longitudinally-reduced portions of the bends of both of the hangers and clasps 11 and 12 provide seats for a purpose which will presently appear and that the projections outward from the said reduced portions serve as guards to prevent accidental disengagement of the devices applied to said combined hangers and clasps when the device as an entirety is arranged as a pair of suspenders. The same feature of construction will be embodied in the hook or similar device 4, carried by the coupling 3.

The combined hangers and clasps 11 and 12 and the hook or similar device 4 are removably engaged by connectors 22, which have suspender-ends 23 carried thereby, one of said connectors being shown in detail on an enlarged scale by Fig. 6. The connectors each have upper and lower laterally-extended eyes 24 and 25, connected by an intermediate shank 26, extending centrally from the lower portion of the upper eye 24 and connecting



with the upper central portion of the lower eye 25. The suspender-ends are connected to the lower eyes 25 of the connectors, and from the upper wall of the lower eye 25 through the shank 26 and the top bar of the upper eye 24 the connector is split or constructed so that the upper eye will be free to have a lateral spreading action. Each connector is preferably formed of flat metal of such character that the divided upper eye 24 and shank 26 will have a springing or resilient action and always return to normal position when free to do so. The longest axis of the opening in the upper eye 24 of each connector is slightly greater than the longitudinal distance between the deepest portions of the recesses 16 and 20 of the bends 15 and 18 of the combined hangers and clasps and considerably less than the longitudinal distance between the greatest outward-extending portions of the projections 17 and 21, and the same proportions exist in the hook or analogous device 4. Consequently when the upper eye 24 is applied to either of the combined hangers and clasps or the connector 4 the opposite laterally-projecting portions of the eye and the shank 26 are sprung apart when passing over the projections 17 or 21 and immediately assume a normal position when reaching the portions of the bends between either of the recesses 16 and 20, where it will be free to swing to accommodate the bodily movements of the wearer of the suspenders without liability of becoming detached accidentally. The spring tension of the upper eye of each connector is strong enough to resist considerable pressure exerted thereon in a direction to separate the same and fully strong enough to resist any ordinary exertion by the wearer, and thus insure retention of the connector in each instance with the part engaged thereby.

The suspender-ends shown by Fig. 1 are of the well-known form of construction; but in Figs. 7 and 8 a modified form of such devices is shown, and in many instances said modified form will be preferable. The combined hangers and clasps 11 and 12 and the connectors 22 are the same in the modified construction shown by Figs. 7 and 8 as in the arrangement heretofore disclosed, and to the lower loop or eye 25 of each connector a single elastic loop 27 is secured, the lower portion of said loop 27 being loosely passed through slots 28 in the center of attachment members 29, consisting of doubled strips of leather or other material, which are sewed or otherwise fastened together and have transversely-extending buttonholes 30 at opposite ends, two of the latter being shown at each end of the members. The said members are preferably flexible, and this form of the suspender-end is adapted for use with trousers having the buttons or other analogous devices on the inside of the waistband, and in applying said members they are fastened to the buttons by means of the buttonholes 30, the two button-

holes permitting an adjustment in this particular instance or a compensation for buttons at different distances apart.

In either form of suspender-end set forth the connectors can be manually disconnected or attached at any time desired, and when it is desired to arrange the combined device as a belt all of said connectors and the suspender-ends carried thereby are detached. To fasten the belt around the body of the wearer, the solid hook or bill 19 is inserted through the open hook or bill 14 by first passing the latter through the opening between the bars 13<sup>a</sup> of the former, and the outdrawing and proper guidance of the two devices will produce the interlock, as shown by Fig. 2. When the device is used as a belt, the straps 1 and 2 can be adjusted to lengthen or shorten the same, and when again arranged for use as suspenders a further adjustment can be made. The entire device can be cheaply manufactured and sold at a comparatively small cost, and the particular advantage of the present improvement is the specified construction of the several connectors and the complementary seat and projection provision in the bends of the hooks or bills of the combined hangers and clasps and the hook or other device 4.

The connectors heretofore set forth are preferably constructed of flat sheet metal of a resilient nature and, comprising intermediate longitudinally-split shanks with separable eyes at one end and closed eyes at the other end, are conducive to the production of positively-operating devices for engagement with the hooks or bills of the hangers, both the separable and closed eyes of each connector being of equal longitudinal extent. The attaching member shown by Figs. 7 and 8 will also preferably have its ends and top edge secured by stitches or the like, and the slot 28 thereof is centrally positioned and has a longitudinal direction to more readily receive the loop 27.

It is obviously apparent that changes in the form, size, proportions, and minor details can be made without departing from the principle of the invention.

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

1. In a device of the class set forth, the combination with a hanger having a reduced seat, of a connector constructed of resilient metal carrying a suspender-end having a centrally transversely separable resilient flat metal eye to spring over a portion of said hanger and loosely engage the said seat, said eye having a shank extending centrally therefrom to a closed eye of a longitudinal extent equal to the said separable eye.

2. In a device of the class set forth, the combination of suspender-straps convertible into a belt, hangers having hooks or bills to separably interlock and provided with reduced seats at the bases thereof and portions adjacent said seats of greater longitudinal



distance than the latter, connectors constructed of resilient sheet metal carrying suspender-ends and having centrally transversely separable resilient flat metal eyes to  
5 spring over the bills or hooks of said hangers and loosely engage the said seats, said eyes having shanks extending centrally therefrom to closed eyes at the opposite extremities, said closed eyes having a longitudinal  
10 extent equal to the said separable eyes.

3. A suspender-end comprising a connecting device, a loop depending therefrom, and an attaching member consisting of a piece of

doubled flexible material secured at its ends and top edge and having a central longitudinal- 15  
nally-extending slot engaged by said loop and provided with transversely-extending buttonholes at the opposite extremities.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in 20  
the presence of two witnesses.

HOWARD J. BLOOMER.

Witnesses:

L. R. MONTGOMERY,  
J. B. ELLS, Jr.