No. 863,548. PATENTED AUG. 13, 1907.

G. MARTIN.

GARMENT SUPPORTER.

APPLICATION FILED JUNE 1, 1906.

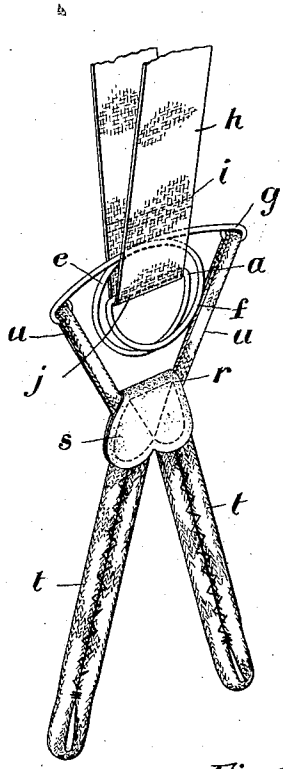

Fig. 2.

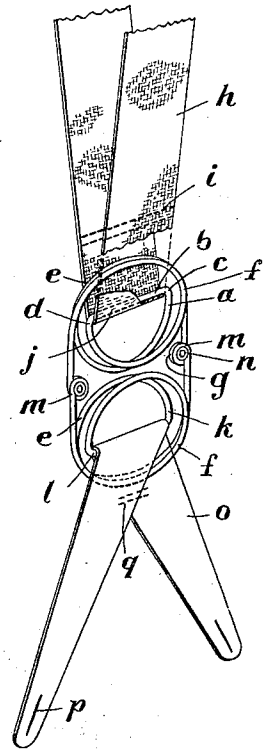

Fig. 1.

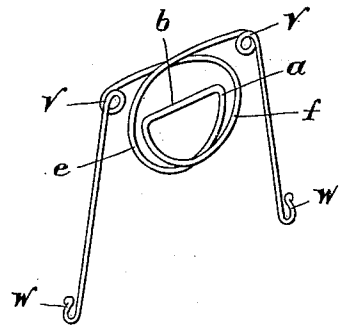

Fig. 3.

Witnesses.

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GEORGE MARTIN, OF TORONTO, ONTARIO, CANADA.

GARMENT-SUPPORTER.

No. 863,548. Specification of Letters Patent. Patented Aug. 13, 1907.

Application filed June 1, 1906. Serial No. 319,737.

To all whom it may concern:

Be it known that I, GEORGE MARTIN, of the city of Toronto, in the county of York, Province of Ontario, in the Dominion of Canada, have invented certain new and useful Improvements in Garment-Supporters, of which the following is the specification.

The invention relates to improvements in garment supporters as described in the present specification and set forth in the accompanying drawings that form part of the same.

The objects of the invention are to devise a garment supporter which will not chafe or injure the back of the wearer, or be liable to get out of order, and to eliminate the necessity of using elastic portions in the shoulder straps, and is very cheap to manufacture, and it consists essentially of a length of wire formed into a double spring loop and forming a central stirrup within the outer wires, and straps of flexible material strung through said stirrup.

In the drawings Figure 1 is a perspective view of the invention as applied to a pair of trousers' suspenders. Fig. 2 is a form of the invention showing another manner of securing the device to trousers' suspenders. Fig. 3 is another form of the invention in which certain parts used in trousers' suspenders may be eliminated.

Like letters of reference indicate corresponding parts in each figure.

Referring to the drawings, *a* is a length of wire forming a double spring loop having a straight portion *b* forming a central stirrup. The wire is bent sharply at the ends of the straight portion *b* at *c* and *d* and curves outwardly therefrom at each end in the form of a partial involute forming the double spring loops *e* and *f*. The loops *e* and *f* are preferably formed with the same form of curve and lie parallel and beside each other at the upper portion of the said curve, and the outer ends of said loops extend outwardly and downwardly from said upper portion and have the eyes *g* formed at the ends thereof.

h is a strap of flexible material strung through the stirrup formed by the straight portion *b*. The upwardly extending portions of the strap *h* form shoulder straps to be passed over the shoulders of the wearer and are arranged on either side of the upper portion of the loops *e* and *f* and are partially separated sidewise and sewed together at *i* forming a loop portion *j* loosely embracing the double spring loop. The object of sewing the extending portions of the strap *h* together at *i* is to prevent the loop end from dropping away from the straight portion or stirrup *b* and also to hold the loops *e* and *f* closely together and prevent any tendency which they might have to spring apart.

k is a double spring loop preferably formed exactly the same as the loop previously described having a stirrup portion *l* and eye portions *m* on the outwardly extending ends thereof.

The loop *k* is inverted and the eye portions *m* brought to register with the eye portions *g* of the double spring loop *a*.

n are suitable eyelets or rivets passed through the eye portions *g* and *m* and are suitably flanged at the outer ends firmly securing the said eye portions together but allowing them to swing freely thereon.

The extending ends of the double spring loops *a* and *k* are of a suitable length to allow a short space between the crossed portion of the said loops so that they will not come in contact and rub or chafe against each other.

o is a strap or strip of flexible material strung through the stirrup portion 1 of the double spring loop *k* and extending downwardly therefrom on either side of the said loop and having suitable buttonholes *p* formed in the extremities thereof. The strap *o* is preferably sewed or secured together at *q* in order to retain it securely in position in the stirrup *l* and also to retain the spring loops of the double loop *k* in close relation.

It will be seen that if the strap *o* is buttoned to the garment and the shoulder straps *h* passed over the shoulders of the wearer and secured to the garment at the other end, any bending movement of the wearer will pull upwardly on the shoulder straps *h* and consequently on the stirrup portion *b* of the loops *a* and *k* and the loop portions *e* and *f* will readily spring inwardly. As the loops *a* and *k* are secured together the strain is equally distributed between the spring portions of the upper loop and the spring portions of the lower loop, and as the said double loops are pivotally secured together the spring loop portions *e* and *f* of the loops *a* and *k* may spring freely, the ends thereof bending inward and swinging freely on the eyelets or rivets *n* thus attaining great flexibility.

The form of loop shown in Fig. 2 is substantially the same as the loops shown in Fig. 1 but the extending ends thereof are not bent downwardly as far as the extending ends of the loops *a* and *k*. *r* is a strap shown constructed of a center portion *s* of leather or other suitable material and having the downwardly extending loops *t* secured thereto which engage the buttons of the garment. *u* are flexible loops secured in the center portion *s* in any suitable manner and having the outer or looped ends thereof held securely in the eye portions *g* of the double spring loop *a*. It will be seen that in this form the upward pull of the shoulder straps *h* will draw the spring loops in an upward direction and as the outer ends thereof are firmly held by the loops *u* the spring loops *e* and *f* will merely contract or bend inwardly and the extending portions will bend partly with the spring loops, the whole forming a very resilient connection between the strap *r* and shoulder straps *h*

The form of device shown in Fig. 3 has substantially the same double loop portion *a* as that shown in Figs. 1 and 2, but the outwardly extending ends of the loops *e* and *f* are coiled at *v*, the outer ends extending downwardly and having hook shaped portions *w* formed at the extremities thereof to embrace the shank of the buttons of the garment supported. This form of spring loop eliminates the use of the flexible strap connections between the spring loop *a* and the garment.

The form shown in Fig. 1 is the most preferable, as two of the double loops are used, and therefore considerable greater resiliency is obtained.

The device herein described is a very neat form of a resilient connection for use in suspenders or like articles and obviates the necessity of using an elastic material either in the shoulder straps or the button straps, and therefore prolongs the life of the article, as it is well known that the life of the elastic used in most suspenders is of short duration and the whole article has to be discarded although all the parts are in good order with the exception of the elastic straps.

A device such as described is particularly adaptable for use for overalls, which necessarily must be of very cheap material, and as the double spring loops are easily and quickly manufactured the cost of production is so slight that the device may be readily fitted to them without materially increasing the cost, and in some cases the cost of production may be considerably lessened, that is, particularly when the form shown in Fig. 3 is used.

What I claim as my invention is:—

1. In a garment supporter, the combination of a length of wire formed into a double spring loop and forming a central stirrup within the outer wires, means for securing the outer ends of said length of wire to the garment, and a strap of flexible material strung through said stirrup, as and for the purpose specified.

2. A garment supporter, comprising a length of wire having a straight central portion and downwardly and inwardly curved outer portions crossing below said straight portion and forming a stirrup, said outer portions extending upwardly and crossing above said straight portion and forming a double spring loop and having loops formed at their outer ends, means for securing said looped ends to the garment, and a strap of flexible material strung through said stirrup, substantially as described.

3. In a garment supporter, the combination of lengths of wire having a straight portion forming a stirrup and inwardly bent portions forming spring loops and extending ends from said loops, means for fastening the extending ends of one length of wire to the extending ends of the other length of wire, and flexible straps strung through said stirrups, as and for the purpose specified.

4. In a garment supporter, the combination of lengths of wire having a straight portion forming a stirrup and inwardly bent portions forming a double spring loop and extending ends therefrom and eyes formed at the extremities thereof, one of said double spring loops being inverted and having the eyes registering with the eyes of the other double spring loop, eyelets or rivets passing through said eyes and flexibly securing them together in pairs, a strap of flexible material strung through one of said stirrups forming shoulder straps and a strap of flexible material strung through the other of said stirrups to secure the supporter to the garment, as and for the purpose specified.

Signed at the city of Toronto, in the county of York, Province of Ontario, in the Dominion of Canada, this third day of May, 1906.

GEORGE MARTIN.

Witnesses:
H. DENNISON,
E. WILKIN.