L. C. NEFF.

GARMENT SUPPORTING BELT.

APPLICATION FILED NOV. 27, 1911.

1,151,708. Patented Aug. 31, 1915.

Fig. 1.

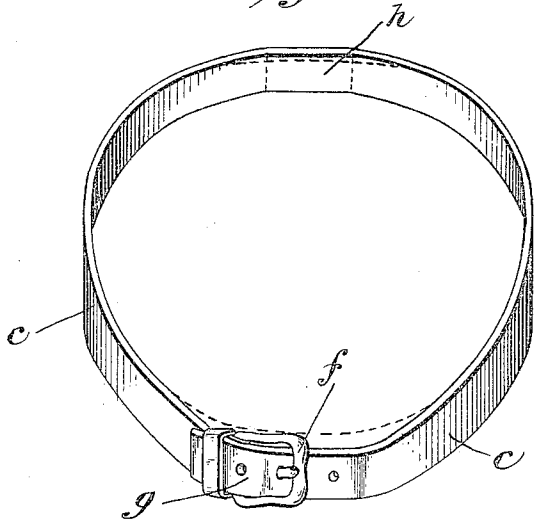


Fig. 2.

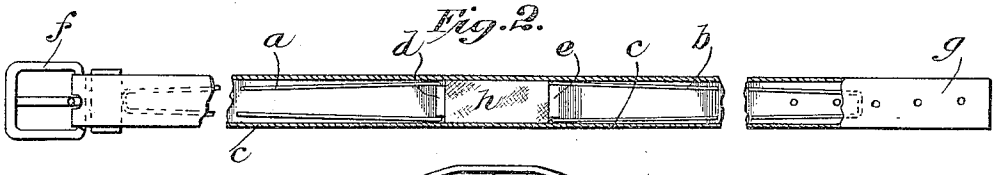


Fig. 3.

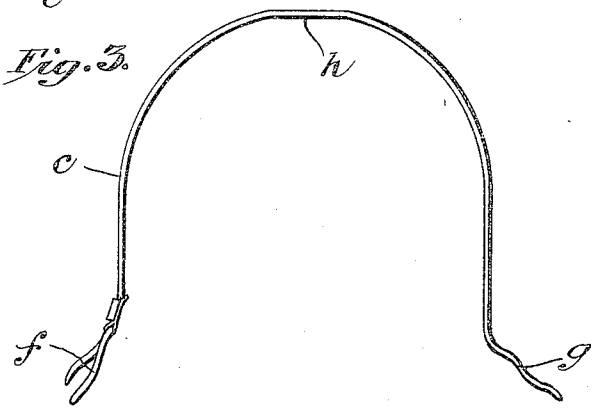
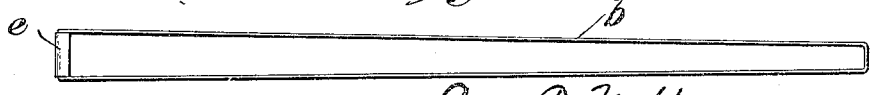


Fig. 4.



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GARMENT-SUPPORTING BELT.

1,151,708. Specification of Letters Patent. Patented Aug. 31, 1915.

Application filed November 27, 1911. Serial No. 662,565.

To all whom it may concern:

Be it known that I, LOUIS C. NEFF, a citizen of the United States, residing at Jersey City, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Garment-Supporting Belts, of which the following is a specification, reference being had therein to the accompanying drawings, which form a part thereof.

My invention relates to garment supporting belts, and more particularly to a type thereof adapted for men's use, the purpose of which is to support the trousers of the wearer.

In the ordinary belt worn by men for supporting the trousers, it is usually necessary to draw the belt tightly about the waist so that there is a constant uniform pressure along the entire line of the belt, including that portion thereof passing directly below the stomach or across the lower portion thereof. Physiologists have recognized this condition as being injurious to a degree varying with the extent of the pressure. This portion of the human anatomy about the stomach is extremely sensitive to pressure, being in close proximity to the solar plexus and to the entrance to the lesser intestines, and any pressure in this region interferes with the peristaltic action of the intestines to a degree which not only occasions discomfort to the wearer, but also results in the development of symptoms and conditions injurious to the health. Many men find this pressure so distressing and are so sensitive about the region of the stomach, as to make it practically impossible for them to wear a belt tightened sufficiently to act as a support for the trousers, while many other men are so adipose as to make it impossible for them to wear a belt as a trouser support without tightening it to such an extent as to excessively constrict and distort the abdomen.

With these conditions in mind, the main object of my invention is to provide a garment supporting belt which will exert sufficient pressure over the hips of the wearer to insure a supporting action of the belt while affording sufficient slack or looseness across the stomach or abdomen to avoid the unhygienic conditions above referred to.

A further object is to provide a belt wherein the supporting pressure will be applied to a portion of the anatomy which is not sensitive to such pressure, and wherein no such distortion of the abdomen as would affect the vital organs will result from the supporting pressure.

A still further object is to provide a belt which may be drawn sufficiently tight about the waist of the wearer to insure its supporting the trousers without resultant discomfort. And a still further object is to provide a belt wherein, if desired, the only pressure exerted thereby will be at the sides, above the hips, of the wearer, the front and rear portions of the belt when applied being spaced away from the body sufficiently to afford comfort through means of the ventilation between the front and back of the belt and the body, while at the same time relieving the body from the harmful conditions resulting from pressure upon, or distortion of, the regions about the stomach and the lesser intestines.

The invention consists primarily in a garment supporting belt, as a new article of manufacture, embodying therein resilient means projecting tangentially of the sides of the body of the wearer and forwardly of the front waist line, and flexible means connecting said forwardly projecting ends whereby with the application of the belt said resilient means will be tensioned to develop pressure upon the sides of the wearer and a reflex action of said means will force said flexible connecting means away from the abdomen; and in such other novel features of construction and combination of parts as are hereinafter set forth and described and more particularly pointed out in the claims hereto appended.

Referring to the drawings:—Figure 1 is a view in perspective, of a belt embodying my invention, illustrating its position when applied to the body; Fig. 2 is a view of the belt laid flat with portions of the protecting sheathing removed to disclose the interior reinforcing members; Fig. 3 is a view showing the position of parts before the connecting means are used to apply the belt; and Fig. 4 is a view of one of said reinforcing members.

Like letters refer to like parts through the several views.

In carrying out my invention, I incorporate in a belt a resilient medium, the ends of which to be drawn together across the abdomen of the wearer, are adapted, through the normal tendency of said medium to straighten

out, or the reflex action of said medium, to move away from the body and carry with it the securing means employed, thus developing side pressure commensurate with the tension of said resilient medium, and relieving that portion of the body between the ends of said medium, from that pressure developed for the purpose of supporting the garment.

In the embodiment of my invention shown in the drawings, I have shown this resilient medium as comprising two elongated springs, *a* and *b*, having light tension, adjacent to the opposite ends of a supporting sheathing *c* which may consist of ordinary tubular strip material like the ordinary belt. To afford the required stiffness to this resilient medium, and to adapt it to leather belts as now commonly used, I make these resilient or spring members of spring wires formed into elongated loops, one end of the loop being closed by a sheet metal tip *d e*. This construction has the advantage of being readily inserted in a tubular belt; being capable of being securely and economically secured in place, and of being sufficiently light in weight to avoid making the completed belt cumbersome. Furthermore, the separated strands of the spring reinforcement permit the belt to readily conform to the body of the wearer along the sides thereof, and also serve to distend the belt and prevent its breaking down so as to become unsightly, or to cut into the body.

The free ends of the protecting belt sheathing *c* are provided respectively with any desired type of securing means such as an ordinary tongue buckle *f* upon one end, and coöperating holes in the other, and these ends are projected beyond the reinforcement to an extent to afford a stretch of flexible material between the adjacent forward ends of said resilient reinforcing members sufficiently great to form slack which will be taken up through the reflex action of the reinforcement, and forced away from the body of the wearer adjacent to the stomach and abdomen.

The resilient members *a b* are of a length to extend across the sides of the body and tangentially thereof, the free ends thereof adjacent to the securing means projecting forwardly of the front of the body to an extent to almost meet across the stomach, there being ordinarily about four inches of slack material in the securing means. Hence the securing means themselves will place a limitation upon the extent of contraction of the members *a* and *b*, thus affording slack material between the adjacent free ends of the said resilient members.

The taking up of the belt through the securing means above referred to will draw that portion of the resilient members *a* and *b* adjacent to the hips, upon the hips with a pressure corresponding with the tension of said members, thus developing sufficient pressure upon the hips to cause the belt to support the trousers, and at the same time tensioning said members in a manner to cause them to spring away from the body adjacent to the ends thereof, and carry with them the flexible portion of the belt.

By the construction above described, I am enabled to provide a belt which may be drawn upon the body without conforming thereto about the entire waist, there being a variable pressure upon the body from the point of highest pressure above the hips, to a point of no pressure across the stomach. This absence of pressure across the stomach is what I primarily aim to secure, and constitutes the essential characteristic of my invention. While the production of hygienic conditions while wearing a belt is the primary result sought, there is the secondary result of physical comfort resulting from the application of pressure at a point which will not constrict or distort the abdomen in any manner.

To still further promote the comfort of the wearer, I prefer to also provide a slack portion *h* in the flexible sheathing *c* at the back of the belt extending from the rear end of one member, *a*, to the other, *b*, the effect of which is to move this connecting portion away from the body of the wearer in a manner to relieve the spine of any pressure and at the same time afford means of ventilation which will contribute to the comfort of the user.

The rear, permanently connected ends of the members *a* and *b* project rearwardly to substantially the same extent as the forward free ends thereof project forwardly, the slack at the back, across the spine, being secured by the construction of the belt and the freedom resulting from the impossibility of closing the entire length of the resilient members *a* and *b* upon the body.

I desire to distinguish my invention from that type of appliances, the function of which is to shape the waist of the wearer, it being essential in connection with all such last named appliances to distort the waist, and to conform to, and hold the distorted waist.

A belt such as I have herein shown and described may be attached to the trousers by belt loops, by being inserted under the suspender buttons, or in any other manner, and in applying, it is merely necessary to insert the end *g* containing the holes through the buckle and draw the ends of the belt together in the usual manner. This movement of the ends of the belt will tension the resilient reinforcing members *a b*, and draw them with sufficient pressure above the hips to support the garment. As the securing means are fastened, the reflex action of said

resilient members will act in the manner above referred to with the result that the front and back of the belt when applied will be actually spaced away from the body, while the sides thereof will be drawn down snugly upon the body.

I have found in actual practice that belts embodying the characteristics herein described are not only conducive to great comfort of the wearer, but will actually afford relief from distressing stomach troubles growing out of the application of pressure across the stomach through the ordinary belt, having uniform flexibility throughout its entire length.

In practice I have found that the use of spring wire is preferable to flat springs, and have also found that springs which are normally flat are preferable to springs shaped to fit the body above the hips, although I have also secured good results with shaped springs.

It is not my intention to limit the invention to the precise details of construction shown in the accompanying drawings, it being apparent that such may be modified without departing from the spirit or scope of the invention.

Having described my invention, what I claim as new and desire to have protected by Letters Patent, is:—

1. As a new article of manufacture, a garment supporting belt comprising a flexible sheathing, a plurality of oppositely disposed spring members of light uniform tension throughout carried thereby with their rearward ends spaced slightly apart, and their forward ends terminating adjacent to the forward ends of said sheathing, said members having a normal tendency to resume a substantially straight line after being bent, said sheathing extending beyond said forward ends, and coöperating connecting means carried by the forward ends of said sheathing closely adjacent to the ends of said springs, whereby said spring members may be tensioned to develop slight pressure upon the sides of the wearer and cause the reflex action of said spring members to force the forward ends of said sheathing away from the abdomen.

2. As a new article of manufacture, a garment supporting belt, comprising a continuous flexible sheathing having a reinforcement, comprising oppositely disposed resilient members carried thereby, each comprising a looped strand of spring wire whereby said member in its entirety may flex in any direction, and will distend said sheathing, said member in its entirety being adapted to project tangentially of the sides of the body of the wearer with the forward and rear ends thereof extended beyond the front and rear waist line respectively, the free ends of said sheathing being extended beyond said resilient members, and the rear ends of said resilient members being spaced apart, and coöperating connecting means carried by said free ends of said sheathing whereby the connection of said free ends will tension said resilient members to develop slight pressure upon the sides of the wearer and permit a reflex action of said members to force the portions of said sheathing not reinforced by said members, away from the body of the wearer.

3. As a new article of manufacture, a garment supporting belt comprising a flexible sheathing, means whereby two springs may be supported thereby, a plurality of flat, straight springs supported by said means so as to be disposed upon opposite sides of the belt when applied to the wearer, said springs being of uniform tension throughout and highly flexible intermediate the ends thereof at a point which will come above the hips of the wearer, and connecting means whereby when said belt is applied to the wearer, slack will be formed intermediate the adjacent ends of said springs respectively and said springs will, through a slight reflex action thereof, force said sheathing away from the stomach and spine of the wearer.

In witness whereof, I have hereunto affixed my signature, in the presence of two subscribing witnesses, this 14th day of November, 1911.

LOUIS C. NEFF.

Witnesses:
EUGENE WENING,
F. T. WENTWORTH.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."