

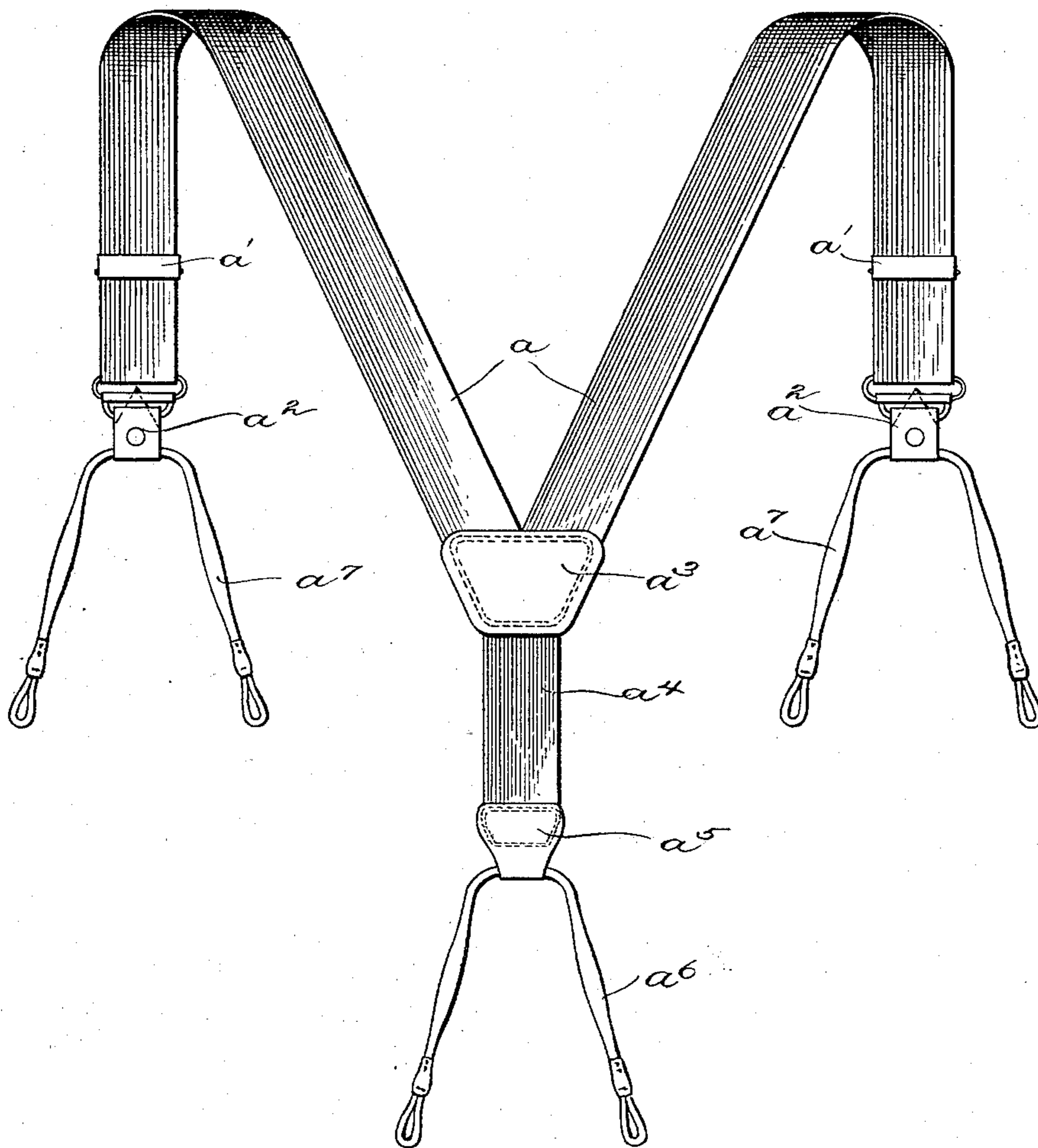
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A. M. ZIEGLER.
SUSPENDERS.

APPLICATION FILED MAR. 21, 1901.

NO MODEL.



Witnesses.
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UNITED STATES PATENT OFFICE.

ALFRED M. ZIEGLER, OF BOSTON, MASSACHUSETTS.

SUSPENDERS.

SPECIFICATION forming part of Letters Patent No. 725,190, dated April 14, 1903.

Application filed March 21, 1901. Serial No. 52,125. (No model.)

To all whom it may concern:

Be it known that I, ALFRED M. ZIEGLER, a citizen of the United States, residing at Boston, county of Suffolk, State of Massachusetts, have invented an Improvement in Suspenders, of which the following description, in connection with the accompanying drawing, is a specification, like letters on the drawing representing like parts.

10 My invention is an improvement in suspenders, and relates particularly to means for preventing the undue sagging of the trousers, while supplying ample elasticity and comfort for extreme body movement.

15 A common experience in the use of suspenders which contain a long elastic webbing is that in order to sustain the trousers properly the user is obliged to tighten them up sufficiently to put the elastic webbing under a slight strain, and this continual strain of 20 the suspender on the shoulders frequently produces an extreme weariness and has resulted in the substitution to quite a degree of suspenders made with non-elastic webbing. 25 The latter, however, are objectionable, because they cannot yield properly to sudden movements and undue strains, and hence are liable to rip off the buttons or injure the garments.

30 A great number of devices have been made and suggested for overcoming the various objections above alluded to; but most of them have accomplished their purpose by doing away entirely with the elastic webbing, 35 which, however, has decided advantages, and accordingly I have devised the present invention, in which I obtain all the advantages of the elastic webbing, utilizing its readily-yielding qualities for all the ordinary 40 movements of the body, thereby insuring the utmost ease to the wearer, and combining therewith elastic fastening ends which do not yield excepting for unusual and sudden strains.

45 In the drawing I have illustrated one embodiment of my invention.

It will be understood that the general arrangement of suspender or shoulder-brace may be of any kind or style desired, being 50 herein shown as comprising branching straps a for passing over the shoulders, provided with take-ups a' and cast-offs a^2 . At the

back the shoulder-straps a are secured together by a suitable connection a^3 , herein shown as a piece of leather, which serves to 55 secure them together and to an auxiliary piece a^4 , provided at its lower end with a leather or other loop a^5 , in which is mounted a fastening end or button-loop a^6 , and other similar fastening ends or button-loops a^7 60 being provided at the cast-offs a^2 . The part a^4 is made of readily-yielding elastic webbing, and preferably, also, the shoulder-straps a are of the same material, whereas the fastening end a^6 , and preferably, also, the ends a^7 are 65 composed of elastic material which does not yield readily, being sufficiently stiff and non-elastic to maintain an unyielding condition for all ordinary purposes, but capable of stretching when subjected to sudden or se- 70 vere strain.

In use my improved suspender gives great ease and comfort to the wearer, because there is no necessity for pulling up the suspender to the usual extent, as all that is necessary is 75 to tighten it sufficiently to give proper support to the trousers for appearance sake, as the elastic webbing a^4 and, preferably a , is capable of yielding with extreme readiness to accommodate the various positions of the 80 body assumed in sitting, walking, &c., whereas in any sudden movement—as, for instance, in jumping or reaching out suddenly—the fastening ends a^7 yield to the extent required and having accomplished their 85 purpose immediately recover their inactive position.

If the whole suspender from end to end were alike readily yielding, the result would be that it would either permit the trousers to 90 sag or else if pulled up sufficiently to prevent said result it would be so tight and harsh as to be uncomfortable and tire sensitive shoulders. The same result would follow if the heavy ends a^6 a^7 were not used, but non-elastic ends used instead, and so, likewise, the 95 same result would follow if the webbing were all non-elastic, whereas by combining a readily-yielding web portion with a tardily-yielding fastening end the result is that the 100 suspender is capable of instantly yielding to all possible movements and requirements to which it may be subjected and yet is normally in such condition as to bring very slight

strain upon the shoulders of the wearer. In other words, the combination in different portions of the suspender of the two degrees of elasticity insures the greatest comfort to the user, while providing a capability of yielding to all emergencies and unusual movements.

A further advantage of my suspender will be evident when it is remembered that the deteriorating influence of the body on a suspender tends to make the latter less and less elastic in the web portion which comes in direct contact in passing over the shoulders, and the result is that in the usual form of suspender which contains an elastic web the suspender gets less and less elastic until finally it loses its elasticity altogether, in which case it results in ripping off buttons and preventing freedom of movement of the user. On the other hand, as the web portion of my suspender loses more or less of its elasticity by extent of use the life of the suspender is not thereby shortened, because the required elasticity of the entire suspender is supplied by the tardily-yielding fastening ends long after the web portion may have ceased to perform its function to the best advantage.

As already intimated, my invention is capable of a great many embodiments, and accordingly I do not limit myself otherwise than is hereinbefore expressed, and more particularly defined in the claims.

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

1. A suspender, containing a webbing for

resting against the body, and fastening ends for securing the same in place, different parts of said suspender having different degrees of elasticity, one part thereof yielding readily for the usual slight changes of position of the user, and another part yielding tardily for accommodating only severe and unusual strains.

2. A suspender, having a web part and fastening ends, said web part or portion thereof being freely elastic and yielding readily, and the fastening ends being tardily elastic and yielding only for extraordinary strains.

3. A suspender, having a web portion extending from the back to the front, and fastening ends at the respective ends of said web portion, said web portion or a part thereof being freely elastic and yielding readily, and the fastening ends at the back of the suspender being tardily elastic and yielding only for extraordinary strains.

4. A suspender, comprising shoulderstraps, fastening ends for the front thereof, a fastening end at the back of the suspender, and a web portion between said shoulderstraps and said back fastening ends, said web portion being freely elastic, and said back fastening end being tardily elastic.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ALFRED M. ZIEGLER.

Witnesses:

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