

(No Model.)

2 Sheets—Sheet 1.

C. B. RICHARDSON.
TROUSERS STRETCHER.

No. 469,272.

Patented Feb. 23, 1892.

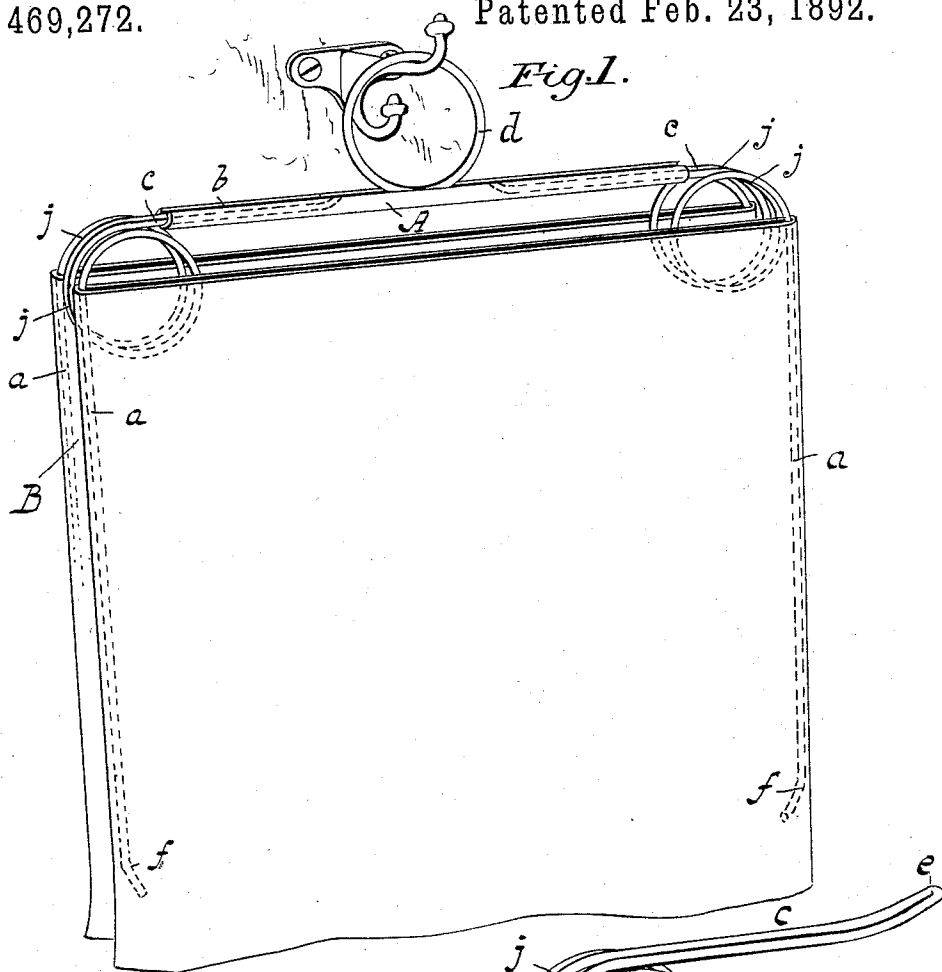
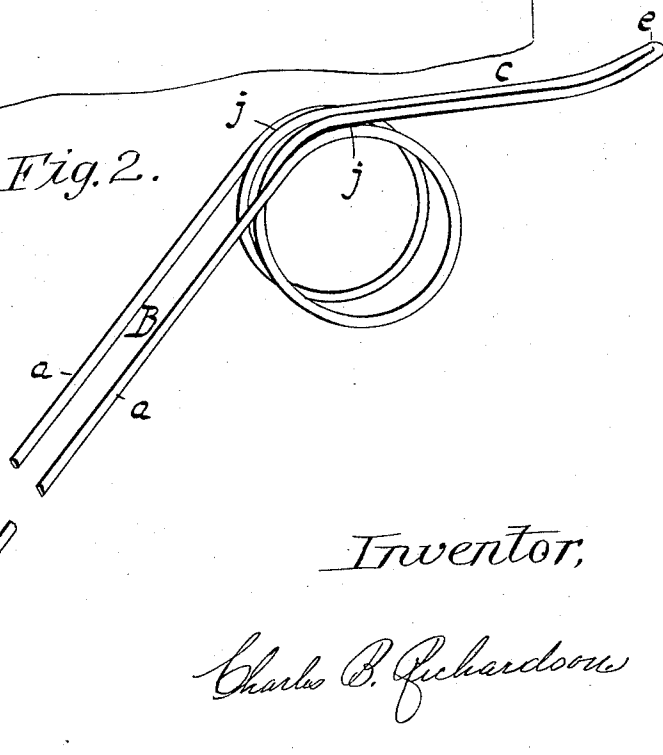


Fig. 2.



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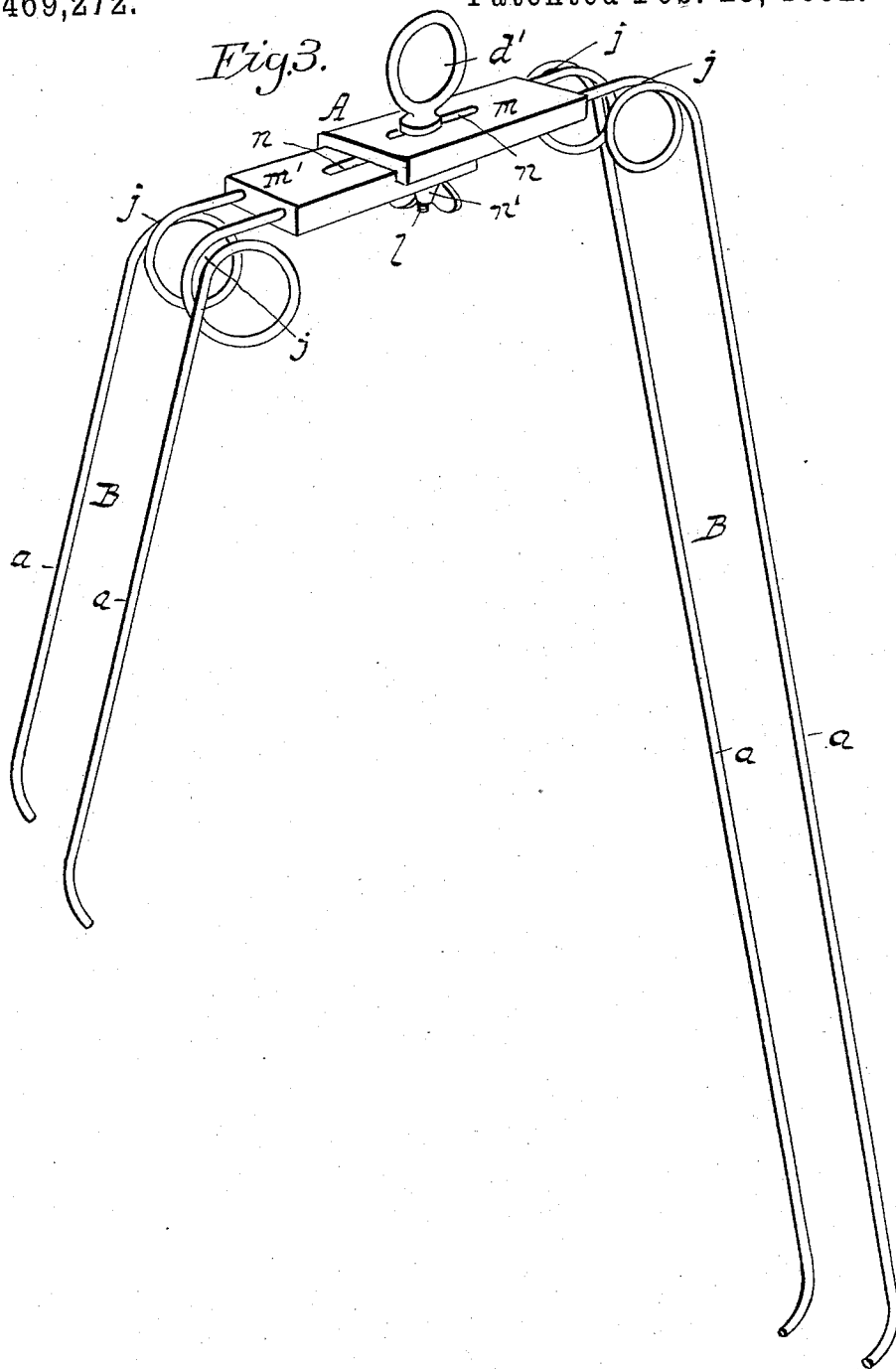
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2 Sheets—Sheet 2.

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TROUSERS STRETCHER.

No. 469,272.

Patented Feb. 23, 1892.



Witnesses:

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UNITED STATES PATENT OFFICE.

CHARLES B. RICHARDSON, OF SPRINGFIELD, MASSACHUSETTS.

TROUSERS-STRETCHER.

SPECIFICATION forming part of Letters Patent No. 469,272, dated February 23, 1892.

Application filed December 8, 1890. Serial No. 373,871. (No model.)

To all whom it may concern:

Be it known that I, CHARLES B. RICHARDSON, a citizen of the United States, residing at Springfield, Hampden county, State of Massachusetts, have invented certain new and useful Improvements in Supports and Stretchers for Trousers, of which the following is a full, clear, and exact description.

This invention relates to improvements in devices for supporting and stretching the legs of trousers, the object being to provide a device for the purpose indicated, which is of very simple construction, to be applied in and relative to the trousers-legs at the lower ends thereof and acting in addition to their capabilities as stretchers also as supports, and, further, the aim of the invention is to provide a support and stretcher which is capable of adjustment so as to conform to trousers-legs of different widths, always, nevertheless, exerting such a degree of spring reaction as insures the most efficient tension on the trousers-legs.

The invention consists in the construction and the combination or arrangement of parts, all substantially as will hereinafter more fully appear and be set forth in the claims.

In the drawings, Figure 1 is a perspective view of the present improved pants-stretcher, also indicating the manner of its application or use in relation to the legs of a pair of trousers. Fig. 2 is a perspective view of one pair of the spring-reacting legs of the trousers-stretcher. Fig. 3 illustrates a modification in the construction, which is, however, held to be in certain respects under the present invention.

I will now proceed to describe the support and stretcher when constructed in what I deem an approved manner, it being here mentioned, however, that certain departure from this construction may be made without departing from the spirit of the invention.

A represents a stock or holder, and B B represent two pairs of spring-reacting legs, which are held by and adjustable on the said holder A, the said legs extending angularly from the holder, and normally the pairs at opposite sides of the holder extend from the latter in diverging lines, as the one pair is related to the other, the legs *a a*, however, of each pair thereof ranging in parallelism and

in practice separated by about an inch, and a convenient and desirable length for said legs of projection beyond the holder being about a foot. A simple and economical construction of the said holder may consist in the formation of the same of a section of tube split at its upper side, as at *b*, at which the suspension-ring *d* is secured by soldering or otherwise.

The stretcher members or devices which are to be provided at each side of the holder is each formed of a single length of wire, which at its middle is sharply bent, as at *e*, the portions adjacent the bend extending alongside of each other, forming the sections *c*, and each of said portions at a suitable distance more or less, as shown from the said point or bend, is coiled around in one or more convolutions, as at *j*. The wire at the coil is thence extended (for a greater or less distance, as dictated by the judgment of the constructor) angularly to the general direction of the parallel portion *c* in the legs *a a*, which may be substantially straight as to the greater portion thereof or slightly curved in accordance with the conformation of the front and rear portion of the legs of the trousers under any prevailing style thereof, the extremities of the said legs being usually inwardly turned, more or less, as indicated at *f*, so as not to present a sharp point to form an indentation in the fabric when in use. It will be seen that the portion formed by the doubled and parallel wires between the return bend *e* and the coils is formed slightly curved or angular, so that when forced into the tubular holder there will be a bind or engagement between the said portion *c* and the said internal portion of the tube, whereby the members of the device carrying the spring-legs may be held with sufficient security in any position or adjustment in which they may be placed.

The device when constructed as hereinabove particularly described may be readily disjointed and the parts arranged in close relations, as most convenient for transportation.

In the view of the modification, Fig. 3, in which the support and stretcher is illustrated, it will be seen that the same has substantially the same capabilities for the efficient action as the one already described, the latter-illustrated construction embodying, however, a

somewhat different design of device for supporting and confining the portions of the wire members which are inside of the coils *j*, the one adjustably with relation to the other. In this modified form it will be seen that the holder *A* is formed in two parts *m m'*, and each carrying the pair *B* of leg members, which are, or may be, permanently affixed on the holder parts *m m'*, and the said holder parts *m m'* are movable longitudinally thereof of the one relative to the other, being held by the screw *l*, the shank of which passes through the slots *n* of the said holder parts and the set-nut *n'*. The upper portion of the confining-screw is formed into a ring *d'*, for the suspension of the device. In said Fig. 3 it will be noticed that the legs at the right are shown as somewhat longer than those at the left. The latter are intended to be inserted within and at the fronts of the pants-legs, while those at the right are for insertion within and at the rear of the legs and to extend along and beyond the portions of the pants-legs which are behind or opposite from the knees and to exert such a tension on the legs of the garment as will in a large measure draw out the fullness or "bagging" at the knees.

In practice it is found that there is a certain degree of spring reaction which it is desirable to obtain in the stretcher-legs while the same are held under stress in the leg of the garment. Inasmuch as pants-legs are cut in some cases wide and in some cases considerably narrower and as too great or too little spring reaction by the stretcher-legs on the trousers-leg fails of the most efficient results, it will become manifest that it is important to so construct or mount the spring-wire legs that one may be moved bodily toward or from the other, whereby in use in pants of any width the given amount of spring or stretching reaction may be exerted by one and the same adjustable pants-stretcher.

In order to make more clear the particular manner of gripping the fabric at the bottom of a trousers-leg at the front thereof or the rear, or both, it is to be borne in mind that the sets of coils *j j*, which are provided in duplicate at the ends of the holder, are wound so as to lie with the one section which constitutes a part of each set of coils normally closely against the other section which constitutes another part of the coil, and so that in order to introduce the fabric between the adjacent portions of the coil the said portions have to be sprung the one away from the other or in the direction parallel with the axis of the coil, and whereby when the fabric of the trousers bottom is so introduced the contracting action of the said portions of the coils serve to grip and bind the interposed fabric, and thereby support the same up in the position to which it is brought, and in further explanation of the manner of action of the stretcher-legs and grippers particular reference will be directed to Fig. 1, wherein

it will be seen that at the left of the holder are the two sets of coils, each of which coils at its extreme left has the two portions which are understood to be closely wound and adapted normally to lie with a spring reaction against each other. The bottom portion of the nearest trousers-leg (shown at the left of Fig. 1) is carried up between the gripping sections of the nearest left-hand coil *j*, and the left-hand bottom portion of the farther trousers-leg is carried up between the gripping sections of the farther left-hand coil *j*, and it will be understood that these left-hand portions of the trousers-legs will from such grip or bind by the said coils be supported on the holder, and by then introducing the other set of legs at the right-hand end of the holder into the trousers-legs at the right-hand bottom portions thereof, even if pains is not taken to carry the fabric between the adjacent portions of the respective coils thereat, the practical action of the device will be secured. In practice it is sufficient to secure a gripping of the trousers-legs, say, at their front portions only and to depend on the spring action of the stretcher-legs at the other end of the holder for the support as well as the stretching action for the rear portions of the trousers-legs, although of course the fabric of each trousers-leg may be gripped at both the front and rear thereof.

It is found due to the peculiar conformation of the legs of trousers that the provision of what are in substance grippers for the front bottom portions of the legs is important and highly advantageous, and having provided devices at the front for gripping and supporting the fabric thereat the downward draft or tension upon the garment-legs at the rear, wherein the outwardly-reacting and sometimes longer stretcher-legs are applied, is greatly reduced, and while it is practicable to have or employ the spring-coils at the rear of the garment it is not necessary so to do, and even where the rear spring is employed it is not necessary to introduce the fabric between the convolutions thereof.

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

1. A trousers-leg support and stretcher, which consists of a pair of spring-metal stretcher-legs and an intermediate support for holding the one opposite the other, the said legs having normally a distension or separation and adapted on being forced the one toward the other to develop a spring reaction, as described, and said legs being respectively provided at their upper portions with closely-wound coils which constitute grippers, for the purposes set forth.

2. In a support and stretcher for a trousers-leg, in combination, a support or holder and a gripper device mounted at one end of the holder for engaging one portion of the garment-leg bottom and a spring-metal stretcher-leg mounted on the holder and extended from

adjacent its other end angularly to the length of the holder and adapted to have an outward stretching reaction—that is, in a direction coincident with a plane comprising the length of the holder—and one of said devices which is supported on the holder having an adjustable engagement therewith, for the purpose set forth.

3. In a trousers support and stretcher, the combination, with a holder, of a duplicated pair of spring-metal stretcher-legs mounted thereon, each leg being provided at its upper portion with closely-wound coils which constitute grippers, and opposite pairs of said legs being movably engaged with the said holder part which supports the other pair, whereby the legs of one pair may be slid bodily thereon toward and from the legs of the opposite pair, substantially as and for the purpose set forth.

4. A support and stretcher for a pair of trousers, consisting of a tubular holder and a pair of members, each of which is formed of a

single piece of heavy wire, which at its intermediate portion is sharply bent and the portions next to said bend extended in parallelism, constituting the portion *c*, which is adapted to enter and closely fit for an adjustable engagement in the socket of the tubular holder, and said wire then formed into coils, and thence extended in stretcher-legs which are angular to the said portion *c*, substantially as described.

5. In a trousers-stretcher, the combination, with a holder, of a pair of spring-metal stretcher-legs mounted thereon and extended angularly from opposite ends of the holder, substantially as described, and each leg being provided at its portion adjacent the holder with coils, and the leg at one side of the holder being longer than the one at the other, substantially as described.

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