

UNITED STATES PATENT OFFICE.

PEDRO DEL VALLE HALSEY, OF NEW YORK, N. Y.

TROUSERS-LEG STRETCHER.

SPECIFICATION forming part of Letters Patent No. 611,841, dated October 4, 1898.

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To all whom it may concern:

Be it known that I, PEDRO DEL VALLE HALSEY, a citizen of the United States of America, and a resident of New York city, county and State of New York, have invented certain new and useful Improvements in Trousers-Leg Stretchers, of which the following is a specification.

My invention consists of an improved extension and contraction frame adapted when contracted to be inserted in the legs of trousers and be extended therein for stretching the legs and restoring the symmetrical form destroyed by the wrinkles and creases incident to service, as hereinafter described, reference being made to the accompanying drawings, in which—

Figure 1 is an elevation of my improved stretcher in the position for use. Fig. 2 is a plan of the upper part folded up. Fig. 3 is a plan of the lower part folded up, and Fig. 4 is a detail showing parts of one of the side bars enlarged.

Two longitudinal bars, as A, preferably of metal, also preferably of angle form and also preferably jointed or otherwise detachably connected at the middle or thereabout, as at *b*, in any approved way, as by a stud *b'* of one section and a socket *b²* of the other section for folding or packing in short length for convenience in handling, are connected by several—say two or more—pairs of jointed links, preferably in two series, as *c c'*, in the manner of toggle-joints, and so that the bars may be contracted within a breadth of less than the width of the trousers-legs when distended and may be extended so as to apply stretching force on the distended legs, the toggle-links being adapted to spread the bars correspondingly with the taper of the legs and produce even tension along them, or practically so—that is to say, the apparatus is so adjusted that the bars range about as much farther apart at one end than at the other end as the trousers-legs are wider at one end than the other. For this purpose the toggle-links are suitably graduated in length.

The toggle-links are jointed at one end to the bars A, as at *d*, in any approved way to allow the required extension of the bars and to allow contraction for the release of the

stress and for compactly folding, as in Figs. 2 and 3, and at their other end they are similarly jointed at *e* to connecting-rods *f*, one to each series of links, which are employed to effect the extension of the bars A and apply and maintain the stress of the bars on the legs.

The toggle-links of the two series are arranged to be moved in reverse directions, respectively, for extending the bars A, which may be either toward or from each other. In this case they are to move toward each other, and a bar *g* is pivoted at *h* to one connecting-rod *f* and has a series of holes *i* to connect with a stud-pin *j* on the other connecting-rod to hold the bars A while stretching the legs.

With the arrangement of the toggle-links of the two series to be moved toward each other for effecting the stretching, the action of rod *g* is by tension. A strap or cord might be used instead; but if the said links were arranged to move the other way, as above suggested, the action of said rod *g* would be by compression, which can only be applied through a stiff rod.

The object of pivoting bar *g*, as at *h*, to the connecting-rod is to enable it to be turned around for folding.

The lower end of one bar A is curved outward, as at *k*, to shape the front of the lower end of the leg to conform to the instep of the foot of the wearer.

It is to be noted that the angle-bars A are so disposed that the cloth is stretched over the apexes of the angles, so as to be creased at the front and back practically the same as when pressed, which is a desirable feature of the device.

To limit the extent of extension of bars A and prevent reversal of the links relatively to their joints with the bars A, they are intended to abut at the ends and have enlarged heads, as shown, for greater certainty of contact.

In the use of this improved stretcher two will be employed, one for each leg, and being duly inserted and set the cloth will be suitably sponged, particularly at the creases and where the legs bulge or bag at the knees. The garment will be hung up to dry and set and will thus be smoothed and dressed as well or

better than by the usual method of pressing and may be done by any one having the apparatus for use.

I claim—

5 The improved trousers-leg stretcher adapted to be inserted in a trousers-leg, consisting of a pair of longitudinal bars and two series of two or more pairs of expanding and contracting toggle-links arranged to act in opposite
10 directions respectively for actuating the said longitudinal bars, connecting-rods of the respective series of toggle-links for causing them to act in unison and in opposite direc-

tions respectively in applying stress to the respective series of toggle-links and thereby 15 forcibly expanding the bars within the leg and stretching it, and means to lock and hold the said series of links and bars under such stress substantially as described.

Signed at New York, in the county of New 20 York and State of New York, this 15th day of December, A. D. 1897.

PEDRO DEL VALLE HALSEY.

Witnesses:

A. P. THAYER,
J. HOWARD.