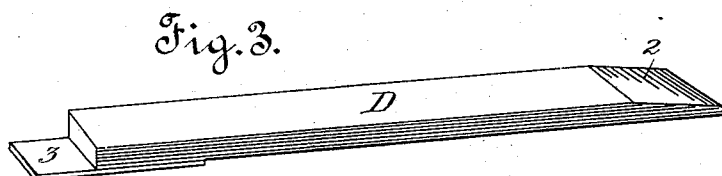
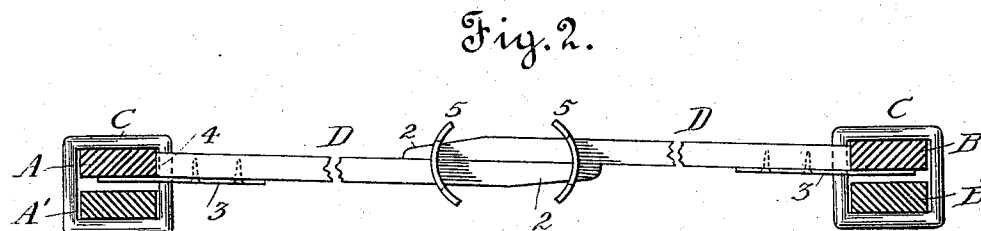
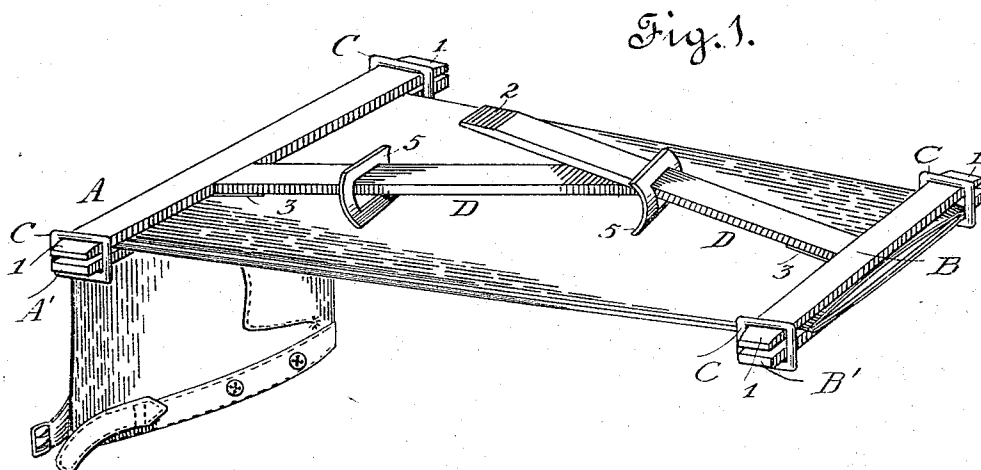


(No Model.)

K. S. O'KEEFFE.
TROUSERS STRETCHER.

No. 532,334.

Patented Jan. 8, 1895.



Witnesses.

W. H. Fortenberry
James Cooper

Inventor.

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UNITED STATES PATENT OFFICE.

KEEFFE S. O'KEEFFE, OF SAN FRANCISCO, CALIFORNIA.

TROUSERS-STRETCHER.

SPECIFICATION forming part of Letters Patent No. 532,334, dated January 8, 1895.

Application filed September 12, 1893. Serial No. 485,326. (No model.)

To all whom it may concern:

Be it known that I, KEEFFE S. O'KEEFFE, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented certain new and useful Improvements in Trousers-Stretchers; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention relates to apparatus for stretching trousers. Many of such devices have come into use within recent years, but it has been the common experience, that either from their cost, or the complexity of their parts, which makes their operation troublesome, or from their liability to get out of order, or from their awkwardness in carriage and transportation, they have not been found satisfactory.

The object of my invention is to produce a simple, cheap, easily managed, strong and conveniently portable trousers stretcher; and I accomplish this object by the construction hereinafter described in detail, and illustrated in the accompanying drawings, in which—

Figure 1, is a perspective view of the device inclosing a pair of trousers. Fig. 2, is an elevation of the stretching levers, and a section of the end bars. Fig. 3, represents one of the stretching levers.

A, A', and B, B', represent parallel end bars, which are preferably strips of tough wood, such as ash. The strips A, B, have their ends slightly beveled as shown at 1. These bars clamp the trousers near the top and bottom.

C, C, represent common rectangular rings like the frame of an ordinary buckle which are slipped over the ends of the adjacent bars, and are clamped and held by the frictional contact produced by forcing them up the bevels on the bars A, B. In connection with these bars I use a kind of loose toggle, composed of two stretching levers D, D, each having a beveled end 2, and provided at the other end with a projecting plate 3, of brass or other thin metal. These plates are slipped between the goods and the respective bars A, and B, so that the ends 4, of the levers may have a secure bearing against the edges of said bars

A, and B. Now if the levers have been inserted at angle as in Fig. 1, they may then be brought into line as in Fig. 2, forcing the opposite pairs of end bars apart and thus putting the goods under strain. In this position they are locked by loose clamps 5, which are forced up the respective beveled ends. The whole device is now perfectly rigid, and will remain so until the clamps 5, are loosened, and the levers thrown out to the position of Fig. 1, by which the tension is relieved. The clamps are then knocked off the end bars and the whole device comes apart. In this knock down condition the wooden strips make a small and convenient bundle if required.

The advantages of this construction so far as simplicity and cheapness are concerned, are apparent at once. In addition, the method of clamping by means of rings forced upon beveled surfaces makes it self-adjusting to different thicknesses of goods. In many, even of the more expensive kinds of stretchers, it is found that they are almost useless when applied to very light goods, because the clamps cannot be tightened sufficiently to prevent slipping. With my end bars having plane parallel faces, and by using my clamps acting upon the beveled ends, a sheet of paper, for instance, can be clamped and securely held. It will also be seen that hinges, screw adjustments, joints of all kinds, and other mechanical features which add to the expense of the ordinary stretchers, are entirely dispensed with, while the efficiency of the device, instead of being sacrificed to simplicity and cheapness, is really increased. It should also be noted that the stretcher can be shortened to approximately the length of one of the stretching levers by overlapping the two completely; and that in that case one or more pairs of trousers can be put in the device. In such case the trousers under strain can be conveniently packed in a trunk. So far as I know this cannot be done with any of the stretchers now in use.

What I claim is—

A knock-down trousers stretcher, composed of two pairs of parallel end bars, removable clamps for securing the members of each

pair together, and a pair of independent longitudinal bars having projecting end plates, said bars extending between and bearing upon the end bars, and having beveled ends
5 and loose clamps, and adapted to act as stretching and holding levers, substantially as set forth.

In testimony whereof I have affixed my signature, in presence of two witnesses, this 1st day of September, 1893.

KEEFFE S. O'KEEFFE.

Witnesses:

S. W. SEELY,
EDW. COOPER.