(No Model.)

G. H. COURSEN.

TROUSERS STRETCHER.

No. 388,952. Patented Sept. 4, 1888.

Fig. 1.

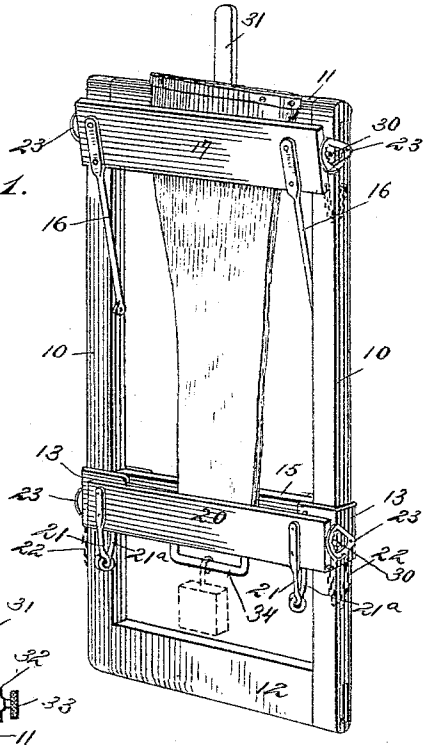


Fig. 2.

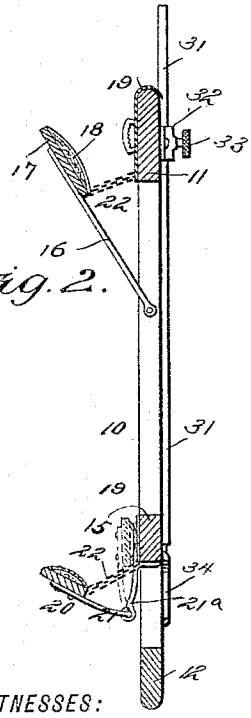


Fig. 3.

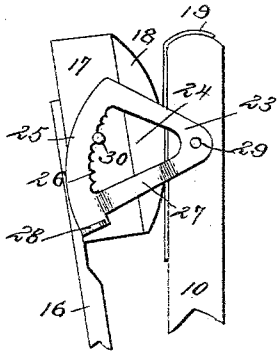
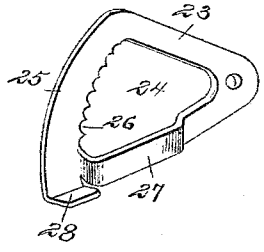


Fig. 4.



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GEORGE HAMPTON COURSEN, OF BALTIMORE, MARYLAND.

TROUSERS-STRETCHER.

SPECIFICATION forming part of Letters Patent No. 388,952, dated September 4, 1888.

Application filed June 28, 1888. Serial No. 278,396. (No model.)

To all whom it may concern:

Be it known that I, GEORGE HAMPTON COURSEN, of Baltimore, in the State of Maryland, have invented a new and Improved Trousers-Stretcher, of which the following is a full, clear, and exact description.

My invention relates to an improvement in trousers-stretchers, and has for its object to provide a device of simple and economical construction, and one which will be at all times in condition for use, and wherein the trousers may be conveniently and expeditiously clamped and stretched.

The invention consists in the construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a perspective view of the device, illustrating the application of the trousers. Fig. 2 is a central vertical section of the same, illustrating the device in position to receive a pair of trousers. Fig. 3 is a partial side elevation of the device when in position illustrated in Fig. 1, and Fig. 4 is a perspective detail view of the locking mechanism.

Trousers-stretchers are often made in several pieces, which are difficult to assemble and to apply, and, further, when the stretching is effected by the force of a spring, which is ordinarily employed, it is not easy to obtain the exact amount of tension desired, and the spring is, moreover, liable to weaken or break, besides being very expensive. It has been my aim to furnish a trousers stretcher easily and quickly manipulated and certain and effective in its action, and which will be all in one piece, inexpensive, and durable.

The body of the device consists of the sides 10 and the top and the bottom transverse bars, 11 and 12, which parts are so joined as to form a strong and rigid frame. The frame is usually made about four feet in length, or long enough to receive a pair of trousers at full length. The frame is illustrated as constructed of wood; or metal may be used, if desired, in which case the side bars will be of hollow tubing. Upon the side bars, 10, metal sleeves or guide-plates 13 are held to slide, the inner or contiguous faces of which are open, and in said open faces the ends of a transverse bar or board, 15, are secured in any approved manner, the said board being purposed to unite the said guide-plates, being preferably of even width.

The guide-plates 13 are free to traverse the sides, as aforesaid, and when not in use rest upon the base-bar 12. Arms 16 are pivoted to the inner face of the several side pieces, 10, and to the upper extremity of said arms, which are usually metal, a clamping-board, 17, is attached, one arm being secured at or near each extremity of the board upon the outer face, as best illustrated in Fig. 1.

The inner face of the clamping-board 17 is provided with a cushion, 18, and the front face of the top cross-bar, 11, and the sliding cross-bar 15 are also covered with a strip of cloth, 19, or other soft material, as best illustrated in Fig. 3. A similar clamping-board, 20, is held contiguous to the sliding bar 15 through the medium of metal arms 21, pivoted or hinged at their lower ends to a downwardly-extending and preferably forwardly-curved arm, 21^a, which latter arm is secured to the under edge of the cross-bar 15 at or near the extremity thereof, and the upper clamping-board, 17, and the lower board, 20, when out of contact with the upper cross-bar, 11, and the sliding cross-bar 15, are retained a suitable distance from the said cross-bars by chains 22, attached, respectively, to each end of the boards and to the said bars and guide-plates 13.

The locking mechanism consists of a metal plate, 23, essentially triangular in contour, provided with a triangular opening, 24, and an eccentric base, 25, provided upon the inner edge with a series of corrugations, 26, as best shown in Fig. 4. The locking-plates 23 are pivoted at their ends to the side bars, 10, of the frame opposite the ends of the clamping-board 17, and to the guide-plates 13, opposite the ends of the lower board, 20, as illustrated in Figs. 1 and 3. The lower side of said clamp is struck up or otherwise manipulated to bow outward, as illustrated at 27 in Fig. 4, and the extremity of the base contiguous to said struck-up side is provided with a lip, 28, extending outward at right angles to said base.

The curved base having its center below the

pivot on which the locking-plate turns, as at 29 in Fig. 3, and the base of the locking-plate being corrugated, as shown, the result is that when the locking-plate is passed over the pin 30, projecting over the ends of the several boards 17 and 20, and pressed down through the medium of the lip 28 the clamping-boards 20 and 17 will be brought firmly in contact with the respective cross-bars 15 and 11 and firmly held so, the corrugations preventing any slipping of the said locking device. The bow 27 is formed in the under side of the locking device in order to permit the pin to freely enter the opening 24 therein and engage the said corrugations 26. In order to steady the movement of the cross-bar 15 and the guide-plates 13, a perpendicular board or guide-rod, 31, is secured centrally to the rear side of the sliding cross-bar 15, and passes through a yoke, 32, attached to the rear of the cross-bar 11, which guide-rod or board is held in any desired vertical position through the medium of a set-screw, 33, passing through the yoke to an engagement with the said board or bar. About centrally of the said cross-bar 15 a downwardly-extending stirrup, 34, is secured, as best shown in Figs. 1 and 2, which stirrup is preferably iron, and is intended to receive the foot of the operator.

In operation the trousers are properly folded and the stretcher held in an upright position, the clamping-boards 20 and 17 being released from the locking mechanism. The upper or waist portion of the trousers is then placed between the upper clamping-board, 17, and the covered face of the top cross-bar, 11, and the locking device pressed downward to an engagement with the pin 30, attached to said locking-board. The lower part of the legs are then entered between the lower clamping-board, 20, and the sliding bar 15, and secured in similar manner, after which, by inserting the foot in the stirrup and bearing down upon the same, any amount of tension may be given to the material and the said material retained under said tension by screwing the set-screw 33 to an engagement with the guide rod or board 31.

If desired, a weight may be hung to the stirrup, as shown in dotted lines in Fig. 1, and the guide-rod 31 left unclamped, and by raising and lowering the sliding sleeves and attached cross-bar any portion of the length of the trousers may be stretched.

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

1. In a stretcher for trousers, the combination, with a rectangular frame, a cross-bar fitted to slide on the side pieces of the frame between the end pieces of said frame, and means for locking the said sliding bar to the frame, of a board pivoted at each end to the upper part of the frame and forming with the upper cross of said frame a stationary clamp, and a board hinged at each end to the sliding cross-bar and forming with the same a sliding clamp, substantially as described.

2. In a trousers stretcher, the combination, with a rigid frame, guide-plates sliding upon said frame, a cross-bar uniting said guide-plates, and means for locking the sliding plates and cross-bar on the frame, of an upper cushioned clamping-board pivoted to the frame, a lower cushioned clamping-board pivoted to the said sliding cross-bar, and means, substantially as shown and described, for retaining the upper board in contact with the upper cross-bar of the frame and the lower board in contact with the sliding cross-bar, as and for the purpose specified.

3. In a trousers-stretcher, the combination, with a rigid frame, guide-plates sliding upon said frame, a cross-bar uniting said guide-plates, and means for locking the sliding plates and cross-bar in position, of an upper cushioned clamping-board pivoted to the frame, a lower cushioned clamping-board pivoted to slide with the guide-plates, a stirrup attached to the sliding cross-bar, a chain attached, respectively, to the clamping-boards, the guide-plates, and the frame, and means, substantially as shown and described, for retaining the upper board in contact with the upper cross-bar of the frame and the lower board in contact with the sliding cross bar, as and for the purpose specified.

4. In a trousers-stretcher, the combination, with a rigid frame, guide-plates sliding upon said frame, a cross-bar uniting said guide-plates, a stirrup attached to the said sliding cross-bar, and means for locking the sliding plates and cross-bar in position, of a cushioned clamping-board pivoted to the frame, adapted to engage the upper cross-bar thereof, a lower cushioned clamping-board pivoted to slide with the guide-plates and adapted to engage the sliding cross-bar, pins projecting from the ends of the said clamping-boards, an essentially-triangular locking-plate provided with a central opening, and an eccentric base having corrugations upon the inner face and the upper side upwardly bowed, said locking-plates pivoted, respectively, to the frame and to the sliding guide plates or sleeves contiguous to the edges of the several clamping-boards, and means, substantially as shown and described, for limiting the outward movement of the said clamping-boards, as and for the purpose specified.

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