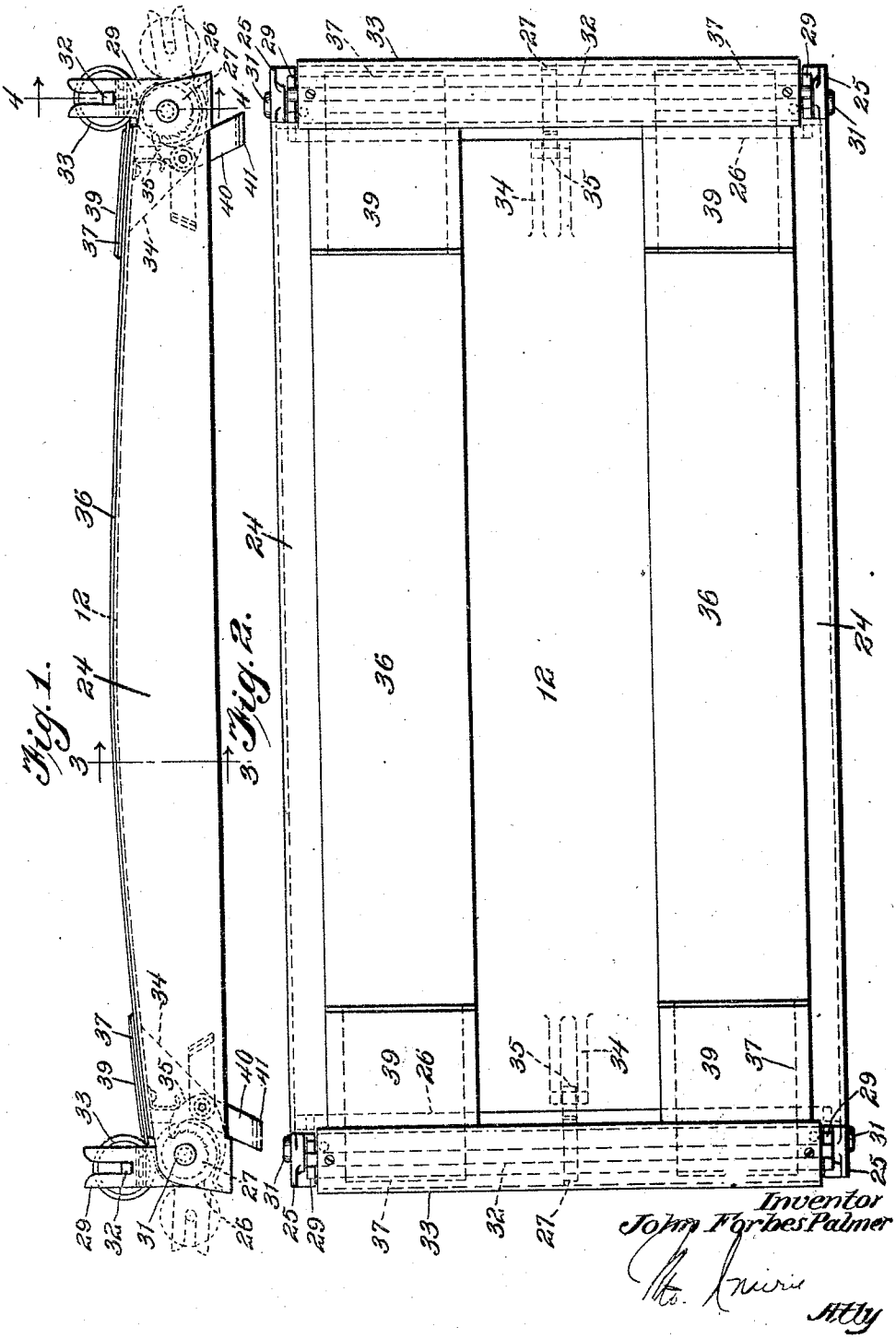
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J. F. PALMER

TROUSER STRETCHER

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TROUSER STRETCHER

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Fig. 4.

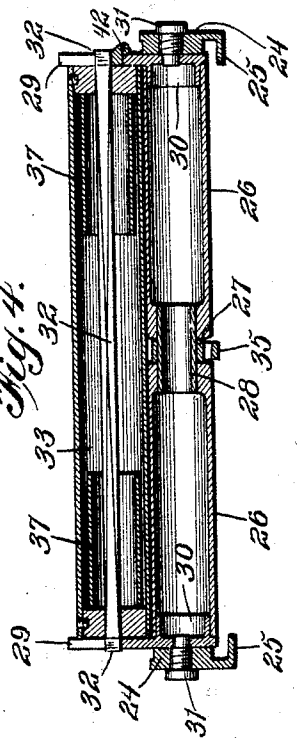


Fig. 5.

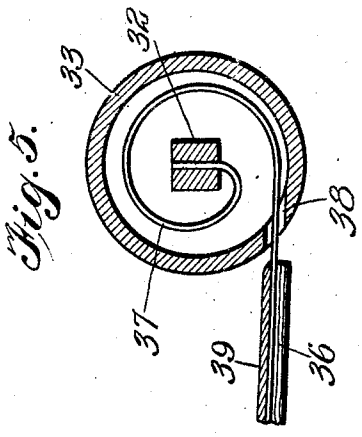


Fig. 3.

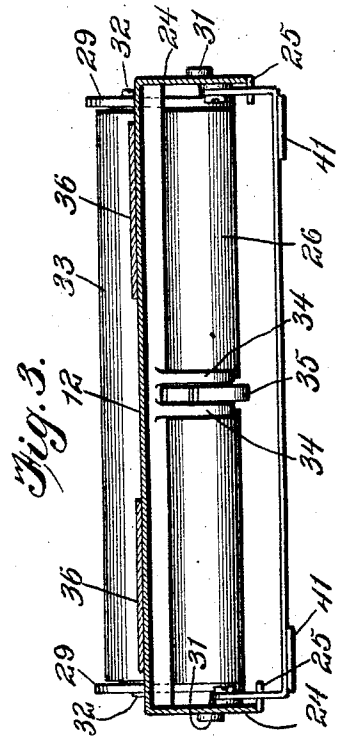
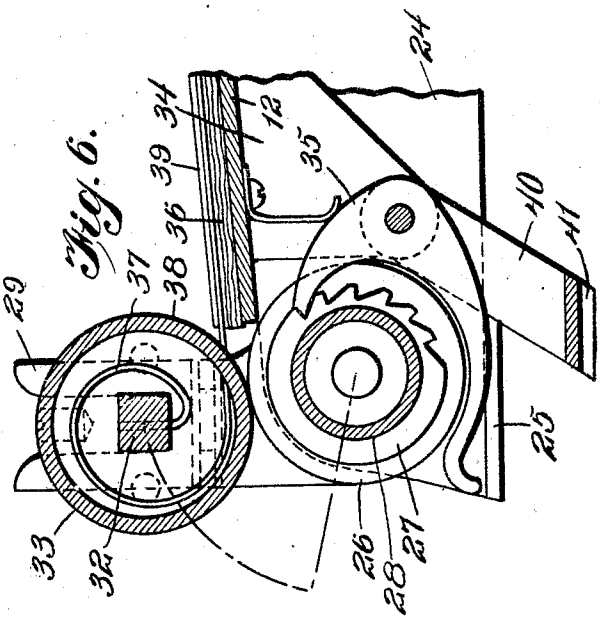


Fig. 6.



Inventor
John Forbes Palmer
Atty

Patented May 26, 1925. 1,539,203

UNITED STATES PATENT OFFICE.

JOHN FORBES PALMER, OF CLAPHAM, LONDON, ENGLAND, ASSIGNOR, BY MESNE ASSIGNMENTS, TO STRECHANPRES TROUSER APPLIANCE COMPANY LIMITED, OF CHEAPSIDE, LONDON, ENGLAND.

TROUSER STRETCHER.

Application filed April 30, 1923. Serial No. 635,687.

To all whom it may concern:

Be it known that I, JOHN FORBES PALMER, a subject of the King of Great Britain, residing at Clapham, London, England, have invented certain new and useful Improvements in Trouser Stretchers, of which the following is a specification.

This invention relates to trouser stretchers.

Heretofore it has been proposed to construct a trouser stretcher comprising a convex surface over which the garment may be laid lengthwise, and means for clamping a garment at each end, one of said clamping means being movable from the surface so that after a garment has been clamped at each end it can be stretched, the movable clamp being associated with a pawl device for preventing the undesired return movement tending to occur by reason of the tension applied to the garment.

In constructions according to the present invention a convex surface is provided at each end with a clamping member, having a complementary member in the form of a roller mounted in fixed bearings on the stretcher frame, the clamping members being movable about the rollers in a direction away from the surface so that subsequently to clamping a garment at each end of the surface a simultaneous stretching movement may be effected at each end by an operator leaning over the stretcher and applying an outward and downward movement to each hinged member.

Each clamping member is preferably also hingedly mounted at the side of the surface, so that they can be lifted up therefrom to facilitate placing a folded garment on the stretcher and then returned to the garment for clamping purposes, whereon the aforesaid stretcher movement away from the surface may be effected.

Each clamping member may be in the form of a roller mounted in supports fixed to the axis of the first mentioned roller, one of said supports being articulated so that the clamping roller may be tilted up about the axis of articulation to enable a garment to be easily placed over the stretcher.

The clamping rollers are preferably connected to a pressing batten adapted to overlie the convex surface, by flexible members which allow of simultaneous downward and outward movement of the clamping rollers.

Each flexible member connecting the clamping rollers to the pressing batten may be constituted by a ribbon-like spring, one end of which is fixed to a roller and the other clamped to the respective end of the pressing batten. Preferably a relatively narrow pressing batten is disposed longitudinally at each side of the convex surface to provide an uncovered central area within which trouser seams will lie, and each clamping roller is provided with a pair of ribbon-like springs connected to the said battens.

In the accompanying drawings is illustrated by way of example a construction embodying the present invention, Figs. 1 and 2 showing the construction in elevation and plan respectively; Figs. 3 and 4 being sections on the lines 3—3 and 4—4 of Fig. 1; and Figs. 5 and 6 being details to an enlarged scale, hereinafter referred to.

Referring to the drawings, the body of the stretcher comprises a convex surface 12 and side pieces 24 adapted to support the convex surface and provided with inturned portions 25, adapted to act as feet.

At each end of the stretcher body and between the side walls 24 is supported a roller carrying a ratchet device, which roller may be composite in nature and comprised, for example, by two short cylinders 26, between which is sandwiched a ratchet 27, the cylinders and the ratchet being fixed and mounted on a sleeve 28 so that they all rotate together. The outer end of each cylinder is carried by a bracket 29 fixed to the end of each side wall, the brackets preferably comprising a cup portion 30 adapted to spring into the adjacent end of the cylindrical members 26, the brackets 29 be-

ing pivotally mounted on studs 31 fitted to the side walls 24. Each of the brackets is slotted as clearly shown in Figs. 1 and 2 to receive a square spindle 32 carrying a second roller 33. By this arrangement a downward and outward pressure on the roller 33 transmits through the brackets 29 a rotation of the connected cylinders 26 with the ratchet 27.

Now suitably pivoted at each end of the stretcher body in a web or the like 34 is a pawl 35 adapted to engage the respective ratchet wheel 27 and prevent undesired reverse rotation of the cylinders 26.

It will be noted that the brackets 29 on one side of the stretcher are articulated as indicated by the numeral 42, so that the rollers 33 can be tilted up about the axis of articulation to facilitate placing a pair of trousers on the stretchers.

The cylinders 33 are connected to a pressing batten 36 by a flexible connection provided between the rollers 33 and the batten.

To this end there is secured to the spindle at each end a spring of ribbon-like form 37, the spring 37 being of such a length as to extend through the roller, which is slotted, as shown at 38, to overlie the cross battens 36, when the spring is in the coiled position shown in Fig. 5, the free ends of the springs being secured to the battens 36 by plates, such as 39. This construction allows an uncoiling of the springs 37 when the rollers 33 are pressed downwardly and outwardly so that the connection between the rollers and the battens 36 is maintained. The connection between the spring and the battens provided by the plates 39 is of such a nature as to rigidly hold the battens when the rollers are tilted up about their articulated brackets 29.

Preferably, however, as shown in the drawings, I provide relatively narrow battens 36 which are disposed over the convex surface so as to leave the central area uncovered, within which the seams of trousers will lie. In use, after the trousers have been laid over the convex surface and over the cylindrical members 26 at each end of the stretcher, the top roller 33 will be operated back to its normal position within its brackets. Then the operator can, by standing over the press and gripping the rollers 33, give a simultaneous downward and outward movement to the rollers, thereby automatically clamping the garment between the rollers and their respective co-operating cylinders and at the same time stretching the garment over the convex surface.

In the construction illustrated, additional feet members 40 are shown, which are pivoted to each side member 24. These feet are approximately of U shape and are preferably provided with a padded surface, such as 41. By swinging the feet down, the stretcher is raised higher than can be obtained by supporting it on the feet 25, while when the feet 40 are not in use, they will be folded within the sides 24.

A stretcher made according to the present invention can be used for stretching a number of trousers at the same time. Instead, however, of placing the garments one on top of the other and against one another in the stretcher, it is preferable to interpose between each garment a plate of suitable material and of dimensions equal or substantially equal to the convex surface of the stretcher.

It will be understood, however, that such plates could also be slightly shorter than the convex surface of the stretcher and merely laid in between each garment so that as each garment was superimposed and stretched, the plate interposed will be held in position.

I claim:

1. A trouser stretcher, comprising a convex supporting surface, clamping means at the respective ends of such surface and adapted for relatively opposite movement to stretch the garment, and pressing means overlying the surface and connected to and operated in the movement of the clamping means.

2. A trouser stretcher having a convex supporting surface, a frame mounted for swinging movement at each end of such surface, a lower roller concentric with the axis of said frame, and an upper roller mounted for bodily movement toward and from the lower roller, and a pressing strip carried by and operated in the movement of the upper rollers.

3. A trouser stretcher having a convex supporting surface, a frame mounted for swinging at each end of such surface, a lower roller concentric with the axis of said frame, and an upper roller mounted in said frame for bodily movement toward and from the lower roller, a pressing strip, and a spring connecting said strip with each of the upper rollers.

4. A trouser stretcher comprising a convex supporting surface, pressing strips overlying said surface, clamping means at the respective ends of the surface, said clamping means being adapted for relatively outward movements to stretch the garment clamped by said means, and connections to cause the movement of the clamping means to actuate the pressing strips.

5. A trouser stretcher comprising a convex supporting surface, pressing strips overlying said surface, clamping means at the respective ends of the surface, said clamping means being adapted for relatively outward movements to stretch the garment clamped by said means, and spring mem-

bers connecting the clamping means and pressing strips to operate the latter in the movement of the former.

6. A trouser stretcher, comprising a convex supporting surface, means mounted for swinging movement at each end of the surface and adapted to clamp the garment between them to stretch the garment in the swinging movement, a pressing strip arranged to overlie a portion of said surface adjacent each edge thereof, to thereby provide an uncovered central area of such surface, and means to operate said strips in the swinging movement of said clamping means.

In testimony whereof I affix my signature.

JOHN FORBES PALMER.