Feb. 10, 1931. C. E. RAMSDELL 1,791,601

GARMENT STRETCHER

Filed Oct. 2, 1929 4 Sheets-Sheet 1

Fig. 1.

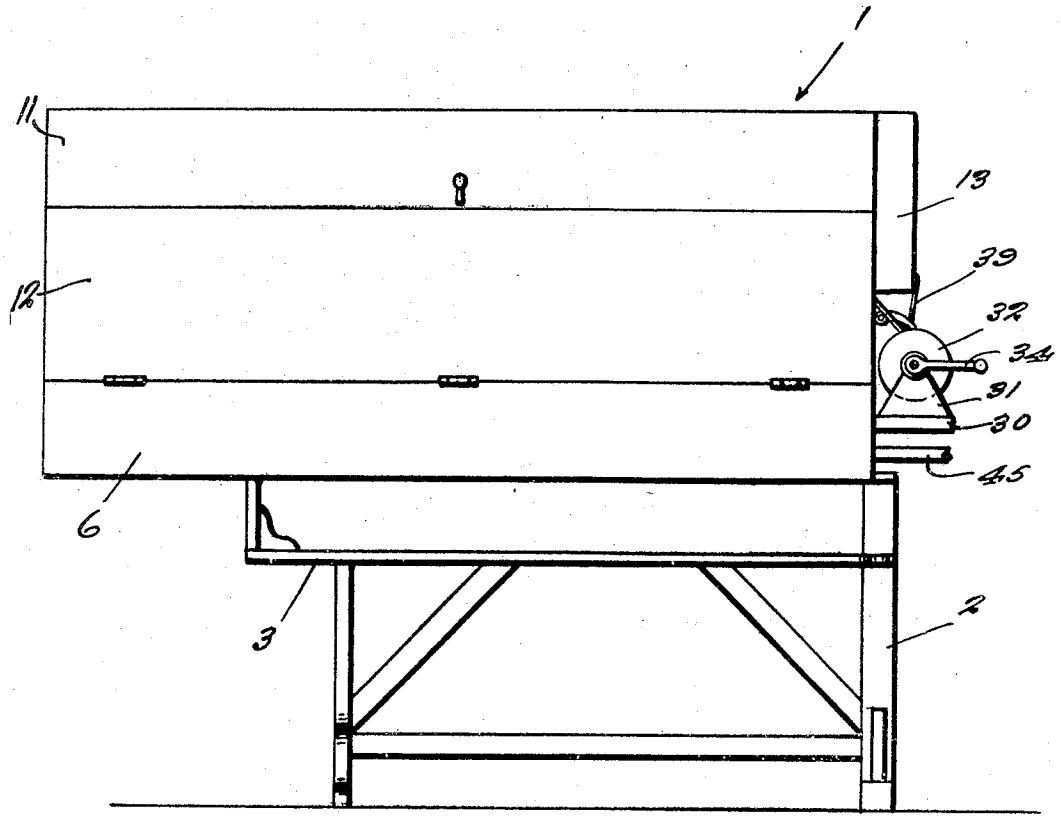
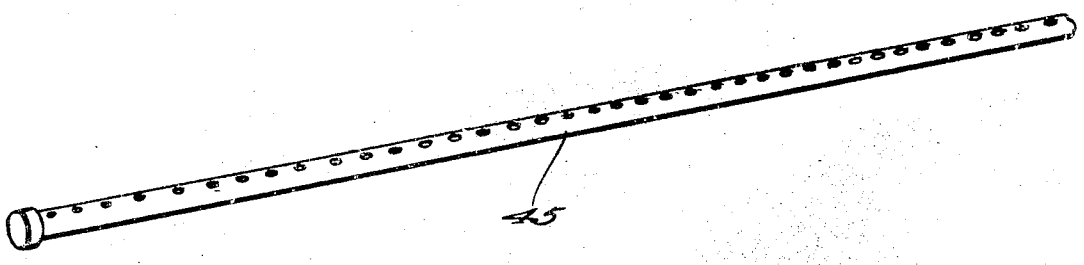


Fig. 11.



Inventor
Clarence E. Ramsdell

By Clarence A. O'Brien
Attorney

Feb. 10, 1931. C. E. RAMSDELL 1,791,601

GARMENT STRETCHER

Filed Oct. 2, 1929 4 Sheets-Sheet 2

Fig. 2.

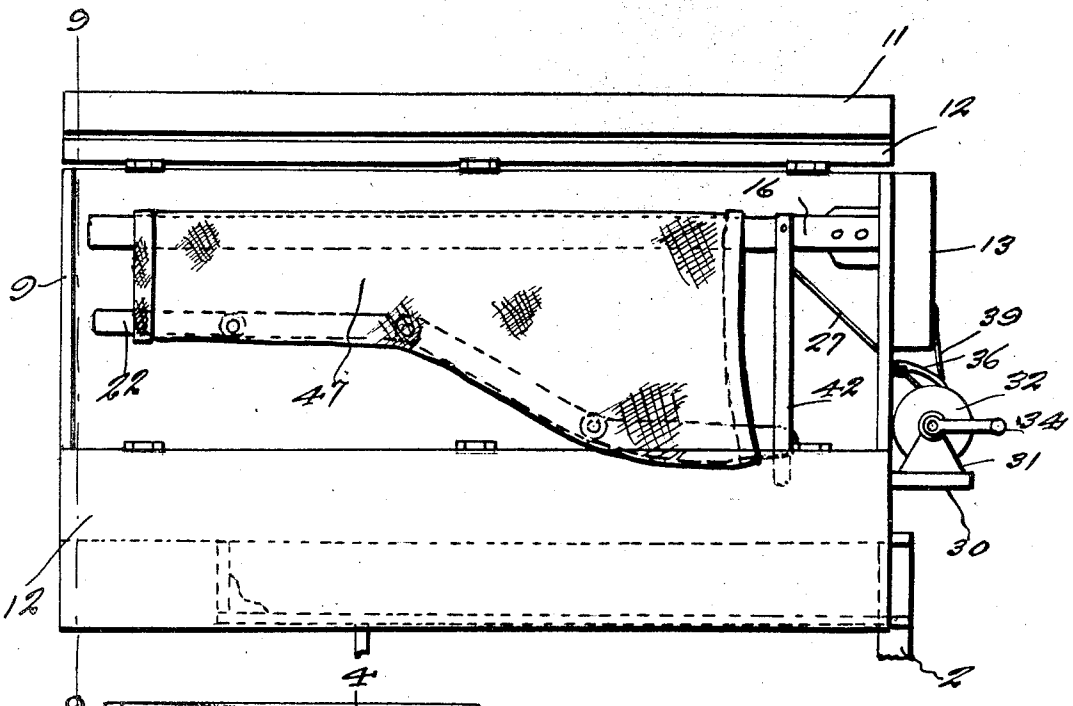


Fig. 3.

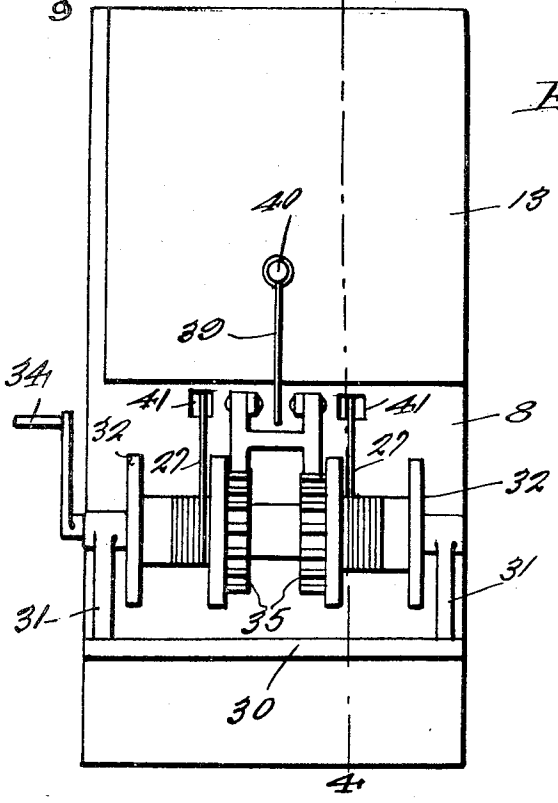
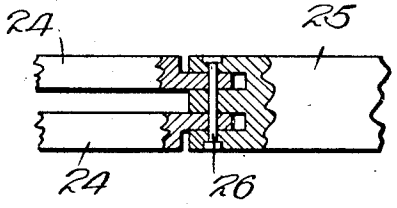


Fig. 12.



Inventor

Clarence E. Ramsdell

By Clarence A. O'Brien

Attorney

Feb. 10, 1931. C. E. RAMSDELL 1,791,601

GARMENT STRETCHER

Filed Oct. 2, 1929 4 Sheets-Sheet 3

Fig. 4.

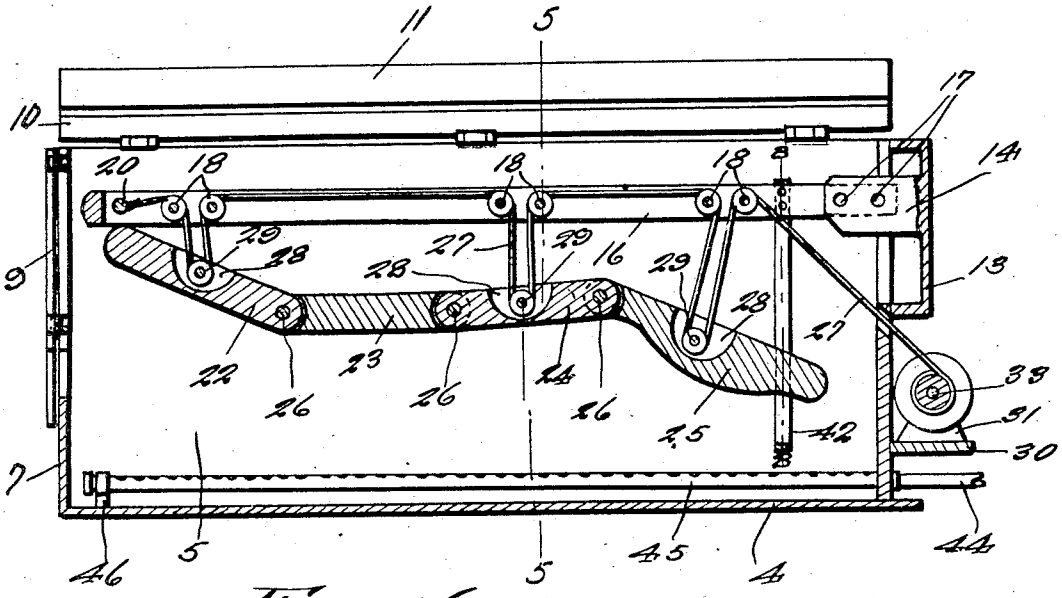


Fig. 6.

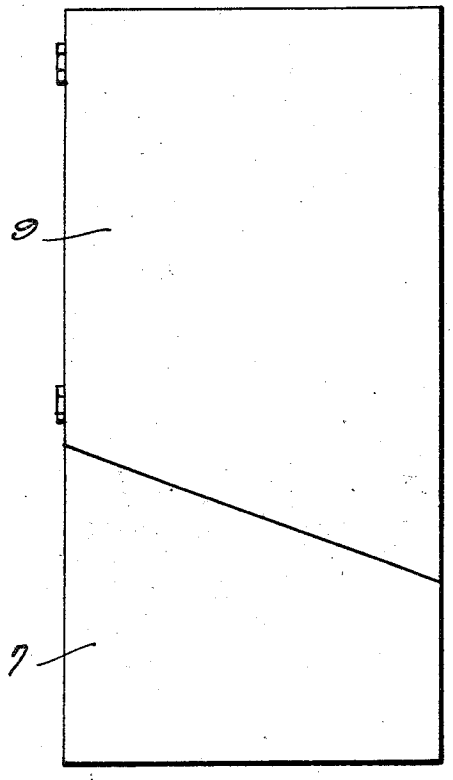
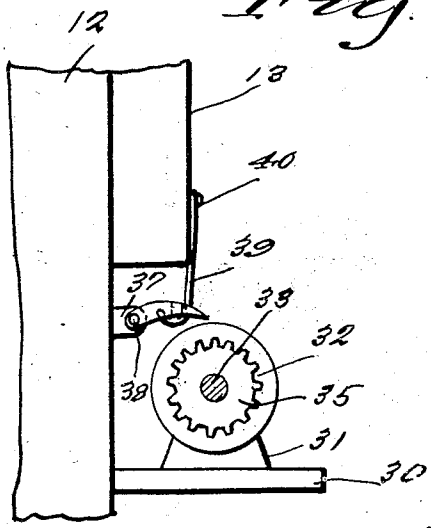


Fig. 7.



Inventor

Clarence E. Ramsdell

By Clarence A. O'Brien

Attorney

Feb. 10, 1931. C. E. RAMSDELL 1,791,601

GARMENT STRETCHER

Filed Oct. 2, 1929 4 Sheets-Sheet 4

Fig. 5.

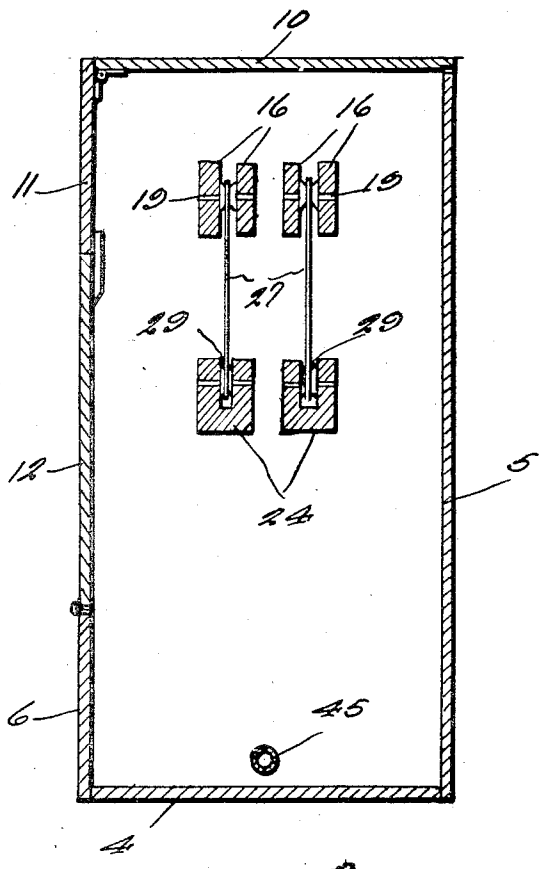


Fig. 8.

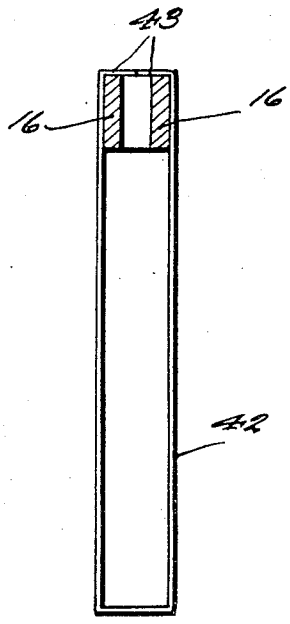


Fig. 9.

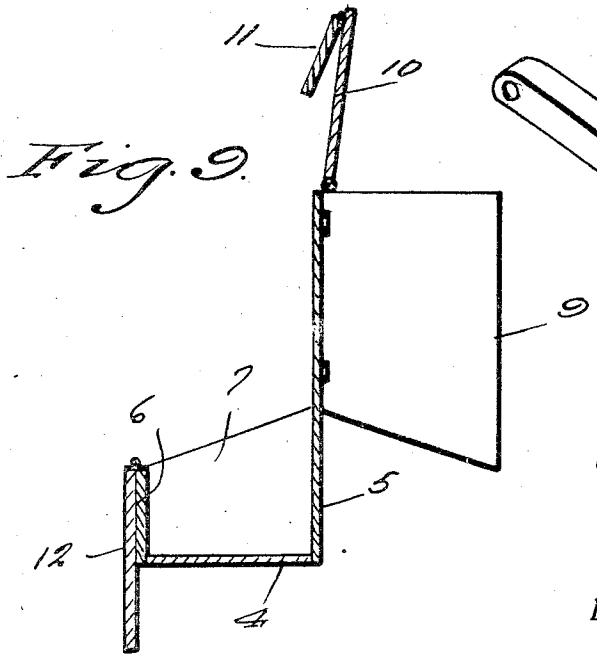
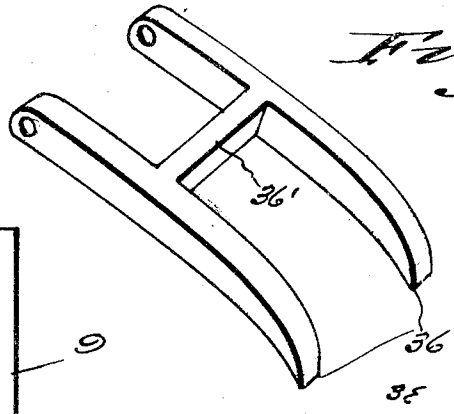


Fig. 10



Inventor
Clarence E. Ramsdell

By Clarence A. O'Brien
Attorney

Patented Feb. 10, 1931 1,791,601

UNITED STATES PATENT OFFICE

CLARENCE E. RAMSDELL, OF WICHITA FALLS, TEXAS, ASSIGNOR TO THE ALLWAY MANUFACTURING CO., A CORPORATION OF TEXAS

GARMENT STRETCHER

Application filed October 2, 1929. Serial No. 396,741.

This invention relates to garment stretchers and more particularly to devices of this character which are especially adapted to stretch the legs and body portions of men's trousers and has for one of its objects to provide, in a manner as hereinafter set forth, a garment stretcher of the aforementioned character, which is adapted to treat the trousers to be stretched with hot steam, to render the same moist and yieldable.

Another object of the invention is to provide, in a manner as hereinafter set forth, a garment stretcher of the aforementioned character having gravity actuated means embodied therewith for stretching the trousers to their original size and shape, as it is well known that after undergoing certain cleaning processes, the action of the cleaning fluid on the fabrics, of which the garment is made, causes said garment to shrink.

A further object of the invention is to provide, in a manner as hereinafter set forth, a garment stretcher of the above mentioned character, having a steam cabinet associated therewith, and further having means for emitting hot steam to the interior of the cabinet, along its longitudinal length, and further having means mounted thereon for raising and lowering the gravity actuated stretcher element.

Still further objects of the invention are to provide a garment stretcher of the aforementioned character, which will be simple in construction, strong, durable, efficient in its use, and which may be manufactured at low cost.

Other objects and advantages of the invention will become apparent from a study of the following specification, taken in connection with the accompanying drawings, wherein like characters of reference designate corresponding parts throughout the several views, and wherein:

Figure 1 is a front elevation of the device, showing the steam cabinet closed.

Figure 2 is a front elevation thereof, showing the front door and top of the cabinet swung back and with the supporting stand therefor broken away.

Figure 3 is a rear end elevation, showing the mechanism for controlling the stretcher element.

Figure 4 is a longitudinal vertical section, taken on the line 4—4 of Figure 3.

Figure 5 is a transverse section, taken on the line 5—5 of Figure 4.

Figure 6 is a front end elevation of the steam cabinet.

Figure 7 is a fragmentary detail and side elevation of a portion of the cabinet, and showing a portion of the control mechanism for the stretcher element, the latter being shown in section.

Figure 8 is a view, taken on the line 8—8 of Figure 4, showing one of the guard elements for the stretcher devices.

Figure 9 is a cross section of the steam cabinet, showing the front, top, and end doors open, and taken on the line 9—9 of Figure 2.

Figure 10 is a detail view, in perspective of the pawls for securing the stretcher elevating drums in adjusted position.

Figure 11 is a detail view, in perspective of the steam spraying pipe.

Figure 12 is a fragmentary view broken away in section and showing the connection of the seat engaging weight with the two trains of leg engaging weights.

Referring to the drawings in detail, the reference characters 1 designate generally a steam cabinet mounted on a supporting stand 2, said stand being provided with a garment supporting shelf 3, above which the steam cabinet is mounted. The steam cabinet 1 comprises a bottom wall 4, a back wall 5, a front wall 6 of considerably less height than the back wall 5, an end wall 7 having its front side co-extensive with the front wall 6 and inclining upwardly to its point of connection with the back wall 5, and another end wall 8 of less height than the back wall 5. An end door 9 is hingedly mounted on one end of the back wall 5 and has its upper end in the horizontal plane of the upper edge of the wall 5, the lower end of said door 9 being of a shape to conform to the adjacent upper end of the wall 7 as clearly indicated in the drawings. To the upper horizontal edge of the rear wall 5 is hingedly mounted the lid or

cover 10, to the forward edge of which is hingedly mounted a strip 11. To the upper edge of the wall 6 is hingedly mounted a front door 12, which is adapted to abut the lower edge of the strip 11, when the cabinet is closed, as clearly indicated in Figure 5.

Upon its rear longitudinal end, the steam cabinet 1 is provided with an extension 13, projecting rearwardly therefrom and extending from the upper edge of the wall 8, to the top of the cabinet, as seen most clearly in Figure 4 of the drawings. The inner wall of the extension 13 is provided with a forwardly extending protuberance 14 to the opposite sides of which are secured spaced pairs of elongated forwardly extending arms 16, which are secured to the protuberance 14, through the medium of the transverse securing elements 17. Each pair of arms 16 extends forwardly to a point adjacent the front end of the steam cabinet and the front end of each of said pairs are connected together. It may be here stated that the pairs of arms 16 may be formed by simply bending an elongated strip of material upon itself and securing the ends on the opposite sides of the protuberance 14, in spaced relation, one pair of arms on each side of said protuberance. Longitudinally spaced pairs of pulleys 18 are journaled between the pairs of arms 16, through the medium of transverse journal pins 19, mounted transversely in said arms.

A pin 20 extends transversely through each pair of the arms 15 adjacent their forward ends and the purpose thereof will be presently set forth.

The gravity actuated garment stretching devices comprise trains of hingedly connected elongated weights or links, which are designated by the reference characters 22, 23, 24, and a single weight 25, which are adapted to swing in a vertical plane with respect to each other through the medium of the horizontal pivot pin 26, which connects same together. As seen in Figure 5 of the drawings, there are two series of the links or weights 22, 23, and 24, which extend in spaced parallel relation with respect to each other. The weight 25 is considerably larger than the weights 22, 23, and 24, and said weight 25 has its connected end pivoted intermediate the adjacent weights 24 of the trains, thus connecting the two trains of weights together at one end. The lower side of the weight 25 is arcuate to conform to the seat portion of the trousers to be set into which said weight is positioned. The trains of weights comprised by the elements 22, 23, and 24 are adapted to extend longitudinally through the legs of the pair of trousers, as clearly seen in Figure 2 of the drawings. These weights constitute stretching means or elements for the trousers and are suspended from the arms 16 through the medium of the strands of rope or cords 27, which are anchored at one end of the cross pin 20 in the end of each pair of arms 16. The links or weights 22, 24, and 25, are provided, in their upper surfaces, with segmental recesses 28, in which are journaled the pulleys 29. The strands 27 extend toward the longitudinal rear of the machine, between the pairs of arms 16, and are looped downwardly between the pairs of pulleys 18 and pass over the pulleys 29, in the weighted links, as clearly illustrated in Figure 4. A supporting bracket 30 extends rearwardly from the end wall 8 of the steam cabinet and mounted thereon through the medium of the standards 31 are a pair of winding drums 32, which are mounted on a horizontal shaft 33, which, in turn, is journaled in the upper end of the standards 31. An actuating crank 34 is secured to one end of the shaft 33 for rotating the same and the drums mounted thereon. The inner opposed sides of the drums 32 have mounted thereon toothed discs 35. A pair of interconnected pawls 36 are hingedly connected to the wall 8 of the steam cabinet, through the medium of the protruding ears 37 and the pivot pins 38 and these pawls are adapted for engagement with the toothed discs 35, for maintaining the drums 32 in any desired position. A retaining hook 39 is pivotally connected, as at 40, to the steam cabinet extension 13, and is adapted to engage under the connecting bar 36′ of the pawls 36, for the purpose of retaining said pawls in elevated position and out of engagement with the toothed discs 35. Openings 41 are provided in the wall 8 of the steam cabinet 1 and are adapted for the passage of the cables or strands 27, the ends of which are connected to the drums 32 and said cables or strands are adapted to be wound on said drums. A vertical guide embraces the forward end of the weight 25 and comprises a substantially U-shaped metallic strip 42, which is suspended from the innermost arm of each pair 16, through the medium of the inturned right angularly disposed terminal portion 43, which rests on top of said arm. A steam conducting pipe 44 is connected to the wall 8 of the steam cabinet and communicates with an elongated perforated discharge pipe or nozzle 45, extending longitudinally in the casing 1 and supported on its front end by a standard 46.

In use, the invention operates as follows: The crank 34 is actuated to rotate the drums 32, for the purpose of winding the cables 27 thereon and thus drawing the linked weight upwardly into engagement with the lower edges of the arms 16. The doors 9 and 12 and the cover or lid 10 of the steam cabinet 1 are then opened to the position indicated in Figure 9, and the pair of trousers designated by the reference character 47 are slipped over the pairs of arms 16 and the weighted links

in such manner that the legs of such trousers have extending longitudinally therethrough a pair of said arms 16, and one of the series of links comprised by the elements 22, 23 and 24. The larger weight 25 is positioned in the seat portion of the trousers, as indicated in Figure 2.

The pawls 36 are then raised out of engagement with the pinions 35, thus releasing the cables 27 and the link will gravitate until arrested by the garment 47 positioned in the machine as will be obvious. Hot steam is then discharged into the cabinet 1, through the medium of the pipe 44 and the nozzle 45, and when this steam thoroughly moistens the fabric of which the trousers are composed, the gravity weights which are positioned therein will stretch said trousers to their original size and shape. The guards 42 serve to prevent lateral movement of the weights 25. It will thus be obvious that I have provided a garment stretching device, which requires very little skill for its operation, and which occupies a minimum of space.

It is believed that the many advantages of a garment stretcher constructed in accordance with this invention will be readily understood and although the preferred embodiment of the invention is as illustrated and described, it is to be understood that changes in the details of construction may be had, which will fall within the scope of the invention as claimed.

What is claimed is:

1. A garment stretcher of the character described, comprising pairs of spaced supporting arms, pairs of longitudinally spaced pulleys journaled between each pair of supporting arms, hingedly connected weight elements positioned beneath the supporting arms, pulleys journaled in certain of said weight elements beneath the pulleys in the arms, and flexible strands anchored at one end to the pairs of arms and having their intermediate portions extending over the pulleys therein and looped downwardly around the pulleys on the weight elements for suspending said weight elements on the arms, and means for actuating said flexible strands for shifting the weight elements toward or from the arms.

2. A garment stretcher of the character described, comprising a casing, pairs of spaced arms extending longitudinally through the casing, pairs of longitudinally spaced pulleys journaled between the pairs of arms, a series of hingedly connected garment stretching weights positioned beneath each pair of arms and adapted to extend into each of the legs of a pair of trousers, a single weight pivotally connected to one end of the two series of weights and adapted to be positioned in the seat portion of the trousers, rotatable pulleys journaled in certain of the weights beneath the pairs of pulleys in the arms, flexible strands anchored at one end to the pairs of arms and extending downwardly between the pairs of pulleys thereon and around the pulleys on the weights, and means for actuating said strands for raising and lowering the weights with respect to the arms, said means comprising a pair of winding drums having means associated therewith for actuating the same, said strands being connected to said drum.

3. A garment stretcher of the character described, comprising a cabinet having hinged closures, pairs of spaced arms projecting longitudinally into said cabinet, longitudinally spaced pairs of pulleys journaled between the arms constituting each pair, a train of hingedly connected stretching weights positioned beneath each pair of arms, said trains of weights being adapted for positioning in the garment to be stretched, a stretching weight hingedly connected to one end of the trains of weights, said last named weight being adapted for disposition in the seat portion of the trousers to be stretched, certain of the first named weights being provided with recesses, a pulley journaled in each of the recesses in the weights, flexible strands anchored at one end to the pairs of arms and extending over the pulleys thereon, the portions of the strands intermediate the pairs of pulleys being looped downwardly and extending under the pulleys on the weights, a pair of winding drums rotatably mounted on the cabinet, the free ends of the flexible strands being connected for winding on the drums, a vertical guide for guiding the trouser seat weight, said guide suspended from the arms, and means for discharging steam into the cabinet in a manner to saturate the trousers.

4. A garment stretcher of the character described comprising spaced supporting arms, series of hingedly connected leg portion stretching weights suspended from each of said arms and adapted to extend into the leg portions of the garment to be stretched, a weight pivotally connected to one end of each of said series of weights and adapted for engagement with the seat portion of the garment, and means for raising and lowering the weights on the arms.

In testimony whereof I affix my signature.

CLARENCE E. RAMSDELL.