

Oct. 14, 1941.

J. R. FITZGERALD

2,258,701

GARMENT STRETCHER

Filed Jan. 31, 1940

2 Sheets-Sheet 1

Fig. 1.

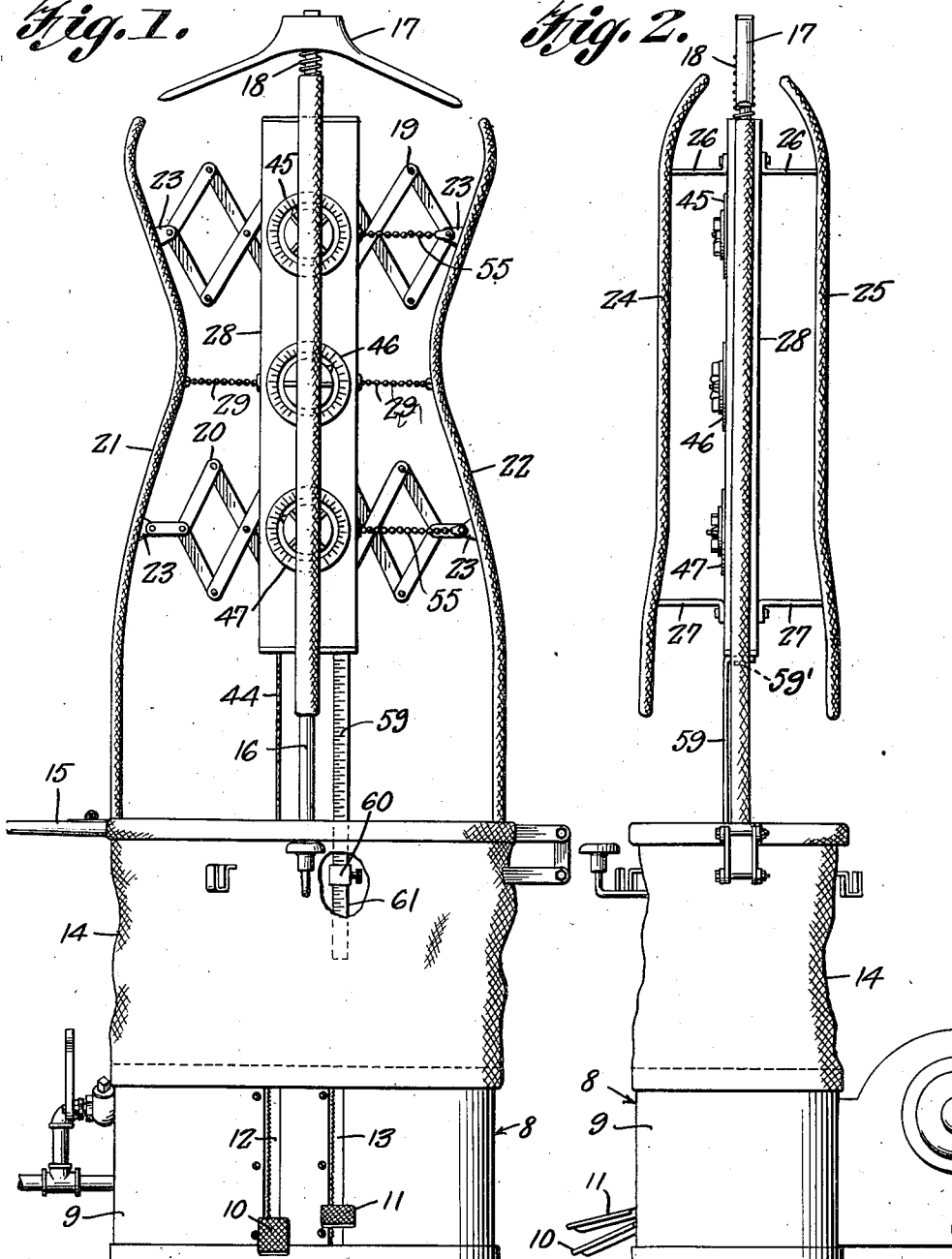
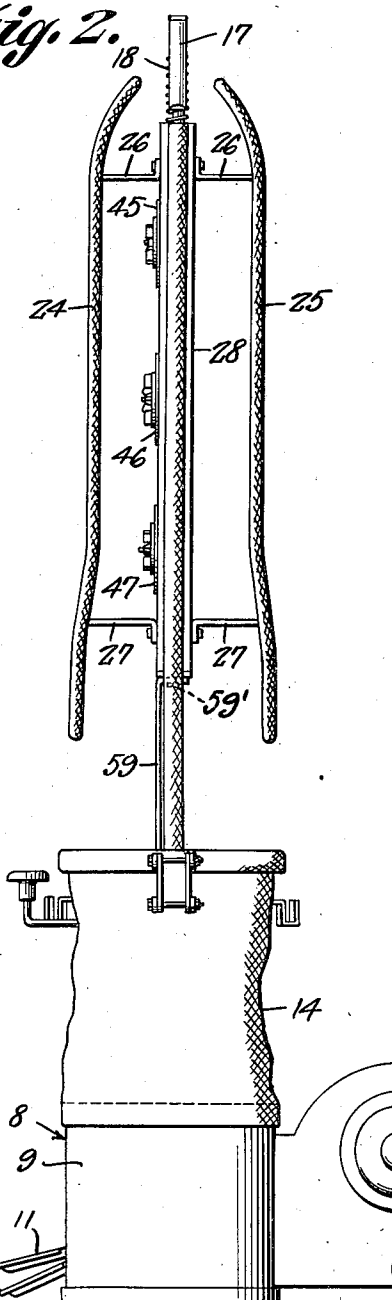


Fig. 2.



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Fig. 3.

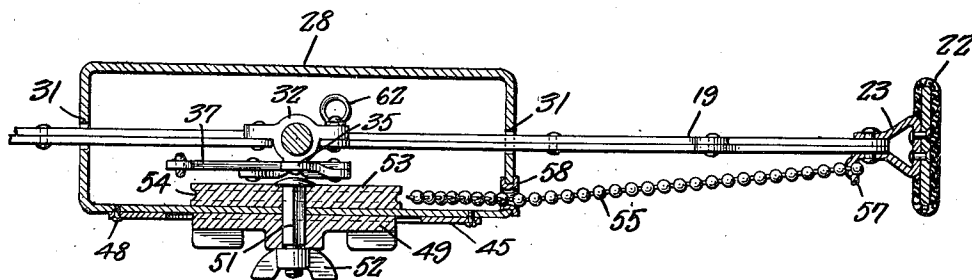


Fig. 4.

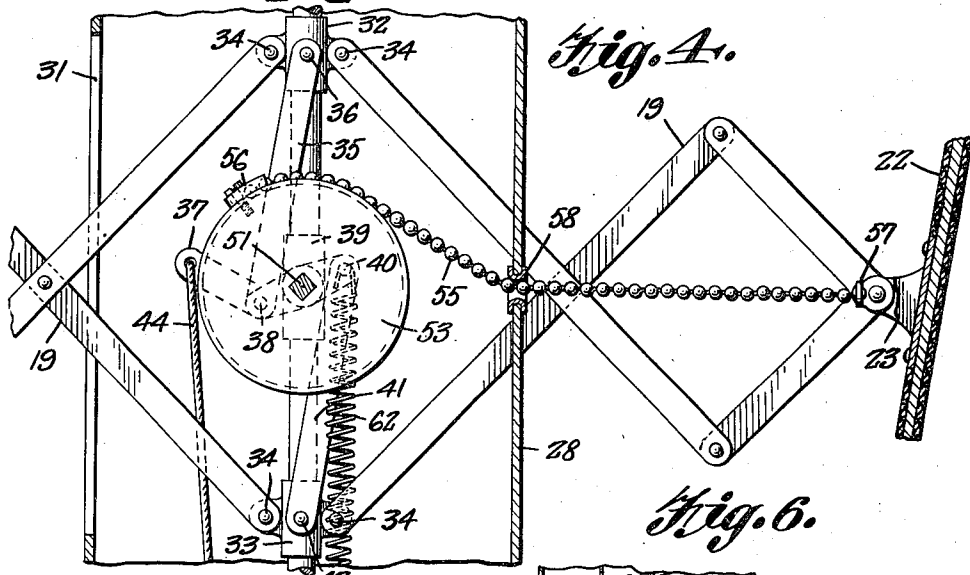
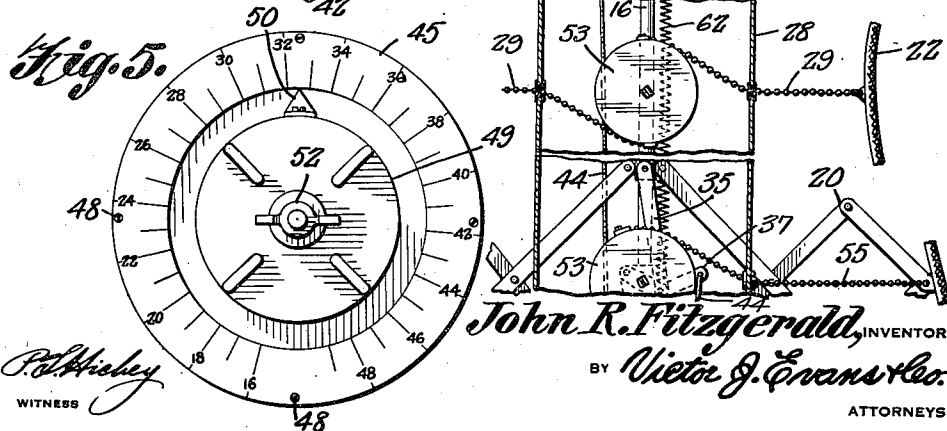


Fig. 6.



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UNITED STATES PATENT OFFICE

2,258,701

GARMENT STRETCHER

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2 Claims. (Cl. 223—68)

The present invention relates to improvements in garment stretchers.

The primary object of the invention is to provide a garment stretcher embodying means for setting the same to the correct measurements of the garment for accurately forming said garment as to length, waist, bust and hip measurements and includes the use of calibrated dials located on the front of the stretcher and associated with the garment stretching means.

A further object of the invention is to provide a garment stretcher embodying novel means through the medium of which a garment may be expeditiously and accurately stretched to the desired size, the machine being calibrated and set as to the exact size prior to the actuation of the stretching means.

The invention will be fully and comprehensively understood from a consideration of the following detailed description when read in connection with the accompanying drawings which form a part of the application.

In the drawings:

Figure 1 is a front elevational view of a garment stretcher embodying the features of the present invention.

Figure 2 is a side elevational view thereof.

Figure 3 is a horizontal sectional view through the machine.

Figure 4 is a vertical sectional view of a portion of the machine and illustrating the stretching means for the bust of the garment.

Figure 5 is a front elevational view of one of the dials employed for setting the exact measurement of the garment to be stretched.

Figure 6 is a vertical detail sectional view similar to Figure 4, and illustrating the central and lower stretcher.

The device in accordance with the present invention is constructed somewhat along the lines of the garment stretcher disclosed in Patent #2,079,726, issued May 11, 1937, and may be considered as an improvement thereover. The base portion of the device which is generally designated by the reference numeral 8 is substantially the same as that disclosed in the above-mentioned patent and it is not deemed necessary to herein specifically describe the same. It is to be understood, however, that steam is applied to the interior of the casing 9 into the garment being stretched. A pair of foot levers 10 and 11, respectively, are operable in elongated slots 12 and 13, respectively, formed in the casing 9 for actuating the stretching mechanism to be hereinafter more fully described. A flexible conduit for the

steam being injected into the garment is designated by the reference numeral 14, the upper end thereof being formed with means 15 for securing the lower end portions of the garment, all of which is conventional in the patented structure.

A tubular post 16 extends upwardly from the casing 9, the same being mounted substantially centrally of the casing and held therein by any desired means, not shown. The upper end of the post 16 supports a garment hanger 17 which is readily removed for positioning the garment thereon to be stretched, said garment hanger resting upon the coil spring 18 surrounding the upper end of the post 16.

A system of lazy tongs 19 and 20 are associated with the post 16 and support on the outer ends thereof flexible side stretching bars 21 and 22, respectively. Ears 23 project inwardly from the side stretching bars 21 and 22 to which the extended ends of the toggle links 19 and 20 are coupled. The side stretching bars give the appearance of a garment form and cooperate with the front and rear bars 24 and 25, respectively, for shaping the garment, said latter bars being attached by the upper and lower brackets 26 and 27, respectively, to a substantially rectangular-shaped housing 28. The post 16 extends through the centralmost portion of the housing 28 as is readily apparent from an inspection of Figures 3 and 4 of the drawings, the housing 28 being fixedly secured thereto by any desired means. The toggles 19 and 20 extend through elongated slots 31 formed in the side walls of said housing.

The toggle systems 19 and 20, as afore indicated, are slidably mounted on the post 16 and are adapted to be expanded and contracted for moving the side stretching bars 21 and 22. A pair of collars 32 and 33, respectively, are slidably mounted on the post 16 and pivotally mounted thereto as indicated at 34, and on opposed sides of the post, are the lazy tongs 19. A link 35 is secured at 36 to the collar 32 and extends downwardly at an angle to the post 16, the lower end of said link being attached to an arcuate-shaped lever 37 as indicated at 38. The arcuate-shaped lever is pivotally attached to a collar 39, which collar is fixedly secured to the post 16 between the slidable collars 32 and 33. The opposite end of the lever 37 has pivotally attached thereto as indicated at 40 a second link 41 the same being in turn secured as indicated at 42 to the lower collar 43. A flexible cable 44 connects the arcuate-shaped lever 37 with the pedal 45 whereby depressing the pedal will cause the cable to pull downwardly on the lever 37

bringing the collars 32 and 33 toward each other to thereby expand the toggle links 19 effecting the stretching of the side bars 21 and 22. A similar system of levers is provided for the toggle links 20 as will be seen from an inspection of Figure 6 of the drawings, which is connected to the pedal 11 and operates in the manner just described. As is to be understood the toggle links 19 effect a stretching of the bust portion of the garment while the toggle links 20 effect a stretching of the hip portion of the garment, the waist portion being measured in a manner to be hereinafter described.

An important feature of the present invention embodies a means to be operated prior to the stretching of the garment for limiting the movement of the respective toggles 19 and 20, depending upon the measurements of the garment. The movement limiting means includes calibrated dials 45, 46 and 47, respectively, secured by means such as screws or the like 48 to the front wall of the housing 28, the respective dials being positioned opposite the bust, waist and hip portions, respectively, of the stretching device as more clearly shown in Figure 1 of the drawings. The dials have size graduations thereon, one of said dials being shown in Figure 5 of the drawings. Mounted on the face of each of the dials and substantially centrally thereof is a metal disk 49 provided with a pointer 50, said disk being mounted on a squared shaft 51 and held thereon by means of a wing nut or the like 52. Mounted on the interior of the housing 28 and on each squared shaft 51 is a pulley 53 having a peripheral groove 54. Rotation of the plate 49 will likewise rotate the pulley 53, and, as is to be understood, the respective plates 49 are rotated for moving the pointer to the desired place on the respective dials for denoting the respective measurements of the garment being stretched. Each pulley 53 has associated therewith a chain 55, said chain adapted to lie within the peripheral groove 54 and has one end thereof attached to the pulley as indicated at 56. The opposite end of the chain is mounted in an extending portion 57 of the ear 23. As the plates 49 and pulleys 53 are rotated when setting the stretcher for the desired measurements the chains 55 will be loosened or tightened depending upon the adjustments made and after the adjustments are made the wing nuts 52 will be tightened locking the plates 49 and pulleys 53 to the casing 28. It will be readily seen that the chains 55 being secured to the pulleys 53, and said pulleys being locked to the housing after the adjustments have been made, movement of the toggle links 19 and 20, respectively, will be limited, likewise limiting the stretching of the side bars 21 and 22, respectively. As shown in Figure 4 of the drawings, the chains 55 extend through grommets 58 formed in the side walls of the housing 28 for guiding the chains onto the pulleys 53.

In actual practice it has not been necessary to employ a system of toggle links for stretching the waist portion of the garment since the centralmost portion of the side stretching bars 21 and 22 will contract and expand upon actuation of the upper and lower toggle links. However, as shown in Figs. 1 and 6 of the drawings, a pair of chains 29 are attached in opposed sides of the central pulley in the manner previously described. While the upper and lower toggle links 19 and 20 will naturally stretch the waist

portion of the side bars 21 and 22 a certain degree, the amount of stretching of said waist portion will be limited by the chains employed.

The length of the garment can be gauged by means of a graduated scale 59 and a member 60 which slides on a rod 61 on which the graduated scale is formed. After stretching the garment to the proper length the bottom portion thereof is attached to the device by the clamping means shown in the patented structure above indicated.

An extension spring 62 extends from the lever 37 of the lazy tong mechanism 19 to the corresponding lever of the lazy tong mechanism 20, the purpose of which is to maintain said lazy tongs normally closed and to return the same to normal position upon the release of pressure on the pedals 10 and 11.

It is believed that the operation and advantages of the garment stretcher as herein set forth and described are readily apparent. The garment hanger 6 is first removed from the post 16 and the garment placed thereon after which it is draped over the flexible side stretching bars and the garment hanger replaced on the post. Prior to placing the garment over the stretcher, however, the dials are set to the desired measurements and the garment stretched, in the manner previously described.

Also it will be understood, of course, by those skilled in the art that variations in the hereinabove described device involving the substitution of substantial equivalents for the devices described are intended to be comprehended within the spirit of the present invention and that the invention is capable of extended application and is not confined to the exact showing of the drawings nor to the precise construction described and, therefore, such changes and modifications may be made therein as do not affect the spirit of the invention nor exceed the scope thereof as expressed in the appended claims.

What is claimed is:

1. A garment stretcher of the character described, comprising a base, a member projecting centrally of said base, a housing surrounding a portion of said member, a system of lazy tongs carried by said member and projecting through said housing, stretching bars carried by said lazy tongs, a dial having graduations thereon attached to the front wall of said housing, a disk mounted within said dial on a shaft extending within said housing, means mounted on said shaft and within said housing adapted to be rotated by said disk when setting the limited movement of said lazy tongs, and means carried thereby for limiting the movement of said lazy tongs.

2. A garment stretcher of the character described, comprising a base, a member projecting centrally of said base, a housing surrounding a portion of said member, a system of lazy tongs carried by said member and projecting through said housing, stretching bars carried by said lazy tongs, a dial having graduations thereon attached to the front wall of said housing, a disk mounted within said dial on a shaft extending within said housing, a grooved pulley mounted on said shaft within said housing and adapted to be rotated with said disk, a chain having one end attached to said pulley and its opposite end attached to the free end of said lazy tongs for limiting the movement of said lazy tongs upon expansion thereof.

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