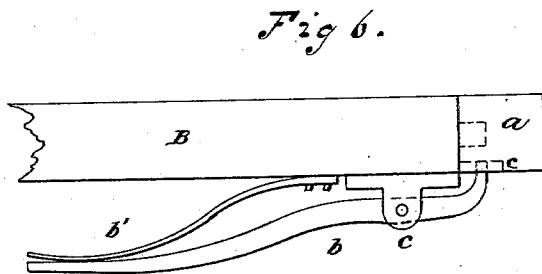
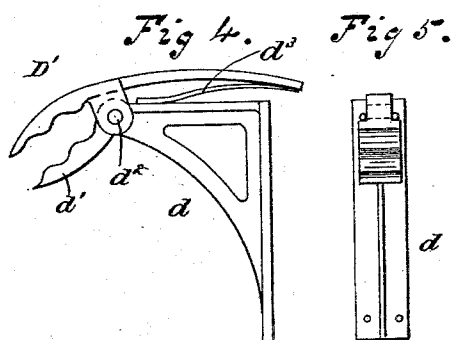
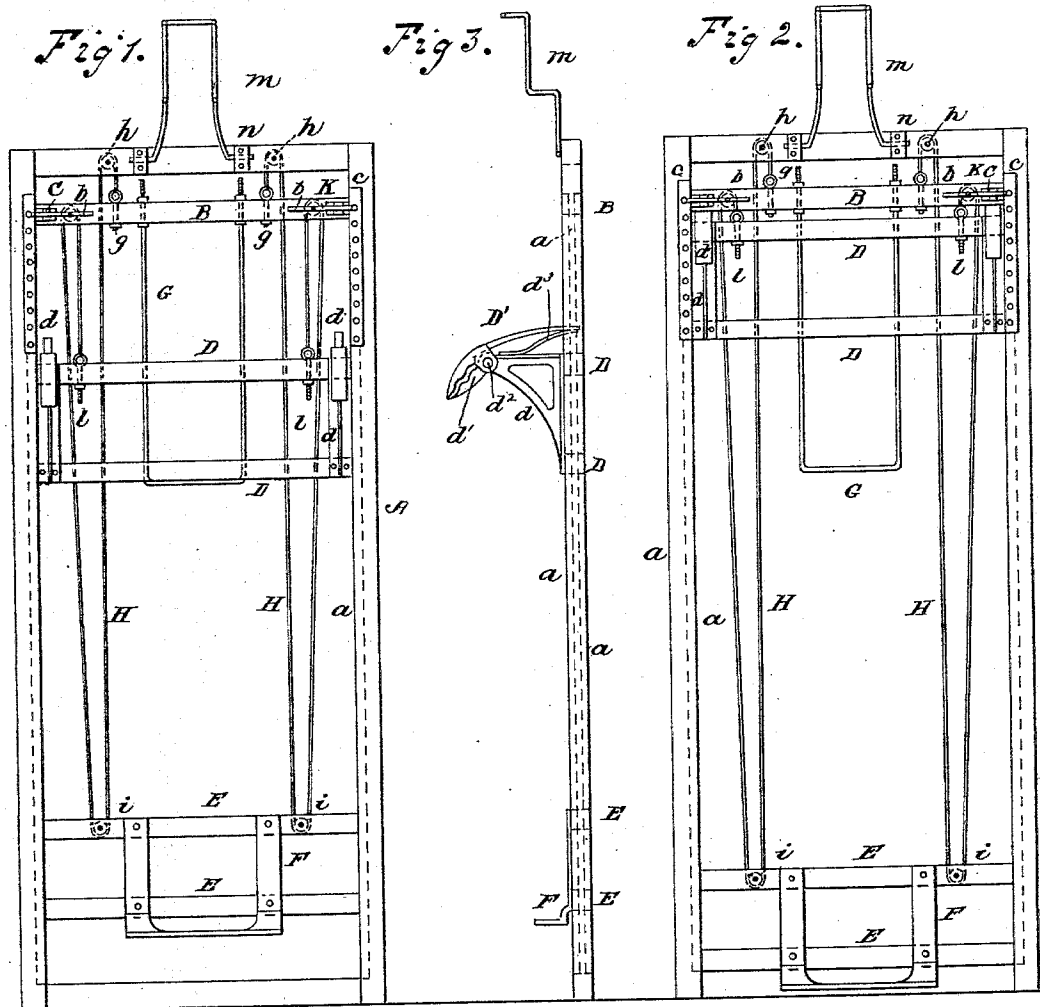


(No Model.)

L. H. DEANER.
APPARATUS FOR ADJUSTING GARMENTS.

No. 546,132.

Patented Sept. 10, 1895.



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UNITED STATES PATENT OFFICE.

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APPARATUS FOR ADJUSTING GARMENTS.

SPECIFICATION forming part of Letters Patent No. 546,132, dated September 10, 1895.

Application filed December 26, 1894. Serial No. 532,953. (No model.)

To all whom it may concern:

Be it known that I, LEE HARMON DEANER, a citizen of the United States, residing at Muskegon, in the county of Muskegon and State of Michigan, have invented certain new and useful Improvements in Apparatus for Adjusting Garments; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to a machine for adjusting or applying an overcoat or other heavy garment to the person of the wearer, the object being to provide an easily-operating and effective apparatus for this purpose which will dispense with the necessity that often arises, especially in the case of aged or infirm persons, of having another person present to assist when one desires to put on his overcoat; and the invention consists, essentially, in the construction, arrangement, and combination of parts, and in certain details and peculiarities thereof, substantially as will be hereinafter described and claimed.

In the annexed drawings, illustrating my invention, Figure 1 is a front elevation of my improved machine for adjusting or applying an overcoat, showing the position assumed by the several mechanical parts when the coat is suspended from the machine. Fig. 2 is a front elevation of the machine, showing the parts in the position that they occupy when the coat is being released. Fig. 3 is an edge view of the machine when in the position shown in Fig. 1. Fig. 4 is an enlarged detail side view of one pair of fingers which grip and hold the overcoat. Fig. 5 is a front view of one of the stationary fingers which are fastened to the machine and in conjunction with which the movable fingers operate. Fig. 6 is a plan view of one of the levers for regulating the adjustment of the machine to suit the different heights of different persons who may use it.

Similar letters of reference designate corresponding parts in the several figures of the drawings.

A designates the main frame of my machine or apparatus, which is preferably made of wood and is securely fastened to the wall of a building, said frame being of any desired

shape and form—as, for instance, rectangular, as shown in the drawings—and being designed to accommodate therewith the several mechanical parts which constitute the operative mechanism of the apparatus. This frame is furnished with oppositely-located grooves *a a*, which are cut in the vertical side pieces of the frame and run substantially the entire length of the same, said grooves being for the purpose of receiving and guiding the ends of certain slides which move up and down therein during the working of the machine. Of course I do not intend to be restricted to making the grooves *a a* in precisely the manner indicated; but I can otherwise provide the vertical portions of the frame with guides which will afford suitable ways for the vertical movement of the sliding parts that carry the mechanical features whereby the function of the apparatus is carried into practical effect.

Near the upper end of the frame A is a horizontal cross-bar B, the ends of which enter and are adapted to slide within the grooves *a a* in the frame A. This cross-bar B is adapted, therefore, to be raised or lowered to suit the different people who may use the machine. It is provided near each end with a lever *b*, which is shown more definitely in the enlarged detail plan view of Fig. 6. This lever *b* is pivoted between the horizontal jaws of the double-jawed bracket C, which is fastened to the front face of the cross-bar B. A spring *b'* is secured to the outer face of the bar B and bears upon the inside length of the lever *b*, acting, therefore, to force the outer or handle end of the lever *b* normally outward, so that the end of the lever which is beyond the fulcrum may be forced normally inward, as shown in Fig. 6. This end of the lever is adapted to enter any one of a series of apertures in the vertical plate *c*, which is let into the face of the side upright of the main frame A, as is clearly shown in Figs. 1, 2, and 6. When the lever *b* is thus in engagement with any one of these apertures, it will act as a lock to hold the bar B in position, and there being a lever at each end of the bar, both levers operating similarly in connection with the apertured plates *c c*, it will be evident that the bar B can be held fixedly in any horizontal position to which it may be adjusted

within the limits of adjustment permitted by the series of openings in the plates *c*. Whenever the operator desires to readjust the position of the bar B, he is simply required to press upon the ends of the levers *b* and disengage the said levers from the plates *c*, and then, after readjusting the position of bar B, the same can be again locked in its new position easily. At a short distance below the cross-bar B are two cross-bars D D, which are likewise horizontal, and the ends of which enter and slide within the grooves *a a*. These cross-bars are coupled together at each end by means of the connecting-brackets *d d*. They together constitute the slide which is designed to carry the coat. The brackets *d* are formed at their outer upper ends with inclined integral stationary fingers *d'*, the faces of which are preferably corrugated, as shown. D' D' designate movable fingers or levers which are pivoted to the brackets *d* at the upper end of the stationary fingers *d'* by means of the horizontal pivot-pins *d²*. These movable fingers D' have a general curved form, and the portions thereof opposite to the stationary fingers *d'* are corrugated or serrated to conform with the adjacent faces of the stationary fingers in order that the overcoat may be gripped tightly between them. These movable fingers D' extend backward toward the slide-frame D D, and springs *d³* are located between them and the top edges of the brackets *d*. Said springs *d³* are flat springs, which are preferably secured at one end to the brackets and are tensioned underneath the oppositely-situated portions of the fingers D', so that their effect is normally to keep the movable jaws pressed closely upon the stationary jaws, in order that the overcoat can be held tightly between them. Of course I do not wish to be restricted to the precise form and exact arrangement of these fingers or jaws as I have described them, but reserve the liberty of varying them in any desired manner, provided they will perform substantially the same function and purpose as that already indicated.

Near the base of the frame A are also two cross-bars E E, which together constitute another sliding frame, their ends being received into grooves *a a* and the bars being coupled together by the foot-rest F, which is securely bolted to both of the bars, as shown, and by means of which the machine is operated. Through the slides D D and the slide-bar B passes a rectangular rod G, as shown in Figs. 1 and 2, said rectangular rod being fastened rigidly to the bar B by means of nuts placed upon the ends of the rods at points above and below the said bar, as is clearly shown in the drawings, the screw-threaded portion of each end of the rod being made long enough so as to permit of an adjustment of the rod. This rod G passes loosely through the slide-bars D D, and hence said bars D D are limited in their movement within the grooves *a a* by the length of the rod G. It will be obvious by

referring to the drawings that the bars D D cannot drop lower than the lower end of the rod G.

To the bar B, at points adjacent to the end of the rectangular rod G, are secured the eyebolts *g g*, to which are fastened the ends of the rope H. These ropes pass over the pulleys *h*, which are pivoted in the upper or top connecting-bar of the main frame A. After passing around these pulleys *h*, the ropes H extend vertically downward until they reach the upper one of the two cross-bars E E, where said ropes pass around the pulleys *i i*, which are pivoted in said upper slide-bar E. The ropes then again pass upward and around pulleys K K, pivoted to the cross-bar B. After passing around these pulleys K K, the ropes again pass downward and are connected to the eyebolts *l l*, which are fastened in the upper one of the slide-bars D D. These eyebolts *l l* are large enough to be adjustable for the purpose of properly regulating the tension of the ropes, so that they may be made of even length and may have the same draft-power. Thus it will be seen how these ropes connect the several slides together and enable the frame at the base of the machine to operate upon the finger-carrying frame for the purpose of raising or lowering the latter. It will be observed that the slides D D are preferably made heavier than the slide E, so that when the machine is not in use the weight of the slide D D will overbalance the weight of the slide E E, and consequently the slide D D will drop into its lowermost position, where it is upheld by the lower end of the rectangular rod G. At the top of the main frame A may be located, if desired, a wire hat-holder *m*, bent into suitable shape and held in place by means of the clips *n* on the upper cross-bar of the main frame, which clips receive the bent ends of the wire-holder, as shown.

In operating this machine, the person who may have just taken off his coat and desires to suspend it upon the machine in such position that the machine may assist him in putting it on again when he is ready will step to the machine, put his foot upon the foot-rest F, and press the latter downward. This action will raise the finger-carrying frame D D, and when the movable fingers D' D', which are carried by said frame, reach in their forward movement the underside of the cross-bar B and strike against the latter, as they are represented as doing in Fig. 2, the result will be to open the fingers or jaws, inasmuch as the cross-bar B is stationary. The position of the fingers when they are thus opened is shown in Fig. 4. The person can then easily insert the collar or lapel of his coat between the open fingers at both sides of the machine, the under side of the coat of course being outward toward the user. The user will then lift his foot from the foot-rest, and the frame D, being preferably of heavier weight than the frame E, and especially so since it carries the overcoat, will then descend

and the springs d^3 will, as soon as the movable fingers D' are released from contact with the cross-bar B, operate to force the fingers together, so that they will firmly grasp the overcoat between them and keep it suspended. When the person is ready to put his coat on, he will approach the machine and stand with his back thereto, and as he puts his arms into the sleeves will at the same time press down the foot-rest with his foot, thereby raising the slide D from which the coat is suspended until the movable fingers D' thereon reach and come in contact with the cross-bar B, when the fingers will be opened, and as the coat will now be upon the back of the wearer the fingers may be released and the wearer will be at liberty to move away from the machine. The position of the bar B, as shown in the drawings, is near the top of the frame A, and is supposed to suit the height of a tall person. When the machine is to be adjusted to suit the height of a shorter man, the cross-bar can have its position regulated in the manner already specified.

Although I have herein described and represented a machine adapted to be fastened to the wall of a building, yet I do not wish to be restricted to locating the machine in this manner, but may construct the apparatus with a self-sustaining frame; also, if desired, the frame may be so constructed as to carry the mechanical elements of several machines. It may be portable, if desired.

Numerous changes in the exact construction, arrangement, and application of the several parts may obviously be made without departing from the invention.

By the peculiar arrangement of the ropes and pulleys the finger-slide travels twice the distance of the foot-slide, and consequently enables the operator to work the machine conveniently without having to lift his foot too high. While the upper bar can be adjusted to suit the different heights of persons, the rope arrangement allows the foot-rest to remain at the same height from the floor.

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

1. In a garment-adjusting machine, the combination of a main frame, a rigid slide bar at the upper end thereof having pivoted locking levers which permit it to have a vertical adjustment, a vertically-movable frame

below said bar, and the pairs of grippers carried thereby and operative to engage a garment, said grippers being arranged to strike the upper bar when they are lifted so as to release the garment, substantially as described.

2. In a garment adjusting machine, the combination of the main frame, the stationary bar at the upper end which is capable of adjustment, the pairs of spring-provided gripping fingers, a vertically-movable slide carrying said fingers, a foot-operated slide at the base of the main frame and connections between it and the finger-carrying slide.

3. In a garment-adjusting machine, the combination with the main frame, of a vertically-movable slide, automatically-operating grippers carried thereby for engaging the garment, an adjustable upper bar against which the grippers strike and open a foot-operated slide at the base of the machine and connections between it and the gripper-carrying slide, substantially as specified.

4. In a garment-adjusting machine, the combination with a main frame, of a stationary bar situated near the top of the frame, a movable frame sliding on the main frame, automatically-movable fingers carried by said movable frame, said fingers being closed by springs and opened by striking against the upper bar, a movable foot-operated frame at the base of the machine and cords or cables connecting the several frames, substantially as described.

5. The combination of the main frame, a normally stationary bar at the upper end thereof, locking levers carried thereby for adjusting the position of said bar, a movable frame which slides in ways in the main frame, a stop rod attached to the stationary bar and passing through the movable frame so as to limit its movement, automatically-operating fingers carried by the movable frame, a foot-operated frame at the base of the machine, cables or cords connecting the movable frame with the foot-operated frame, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

LEE HARMON DEANER.

Witnesses:

ROBERT WEIR,
NELLIE ROACH.