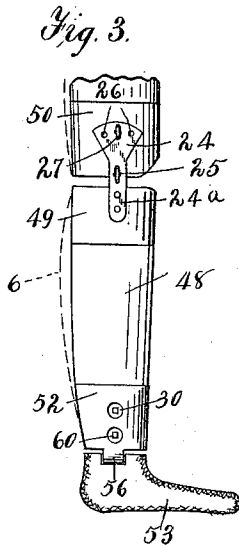
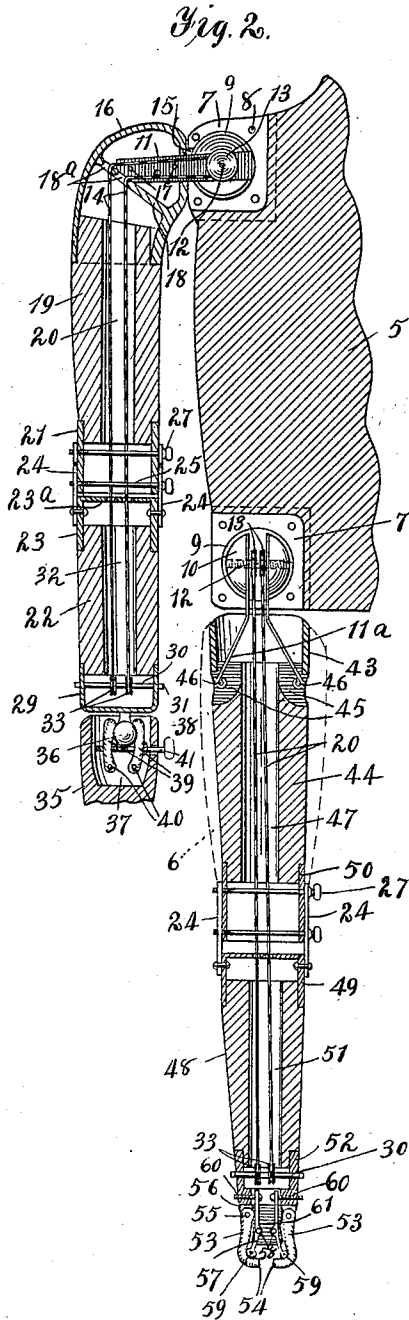
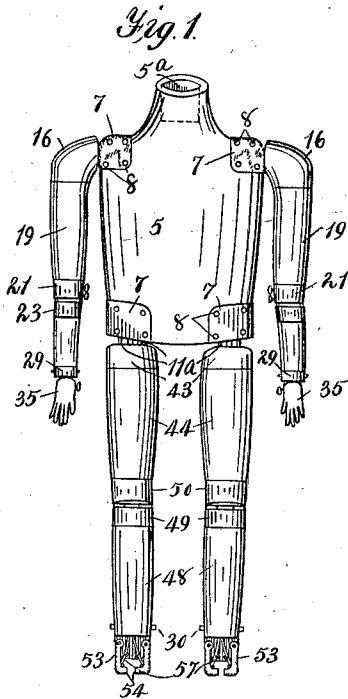


M. J. FORQUER.
GARMENT DISPLAY FORM.
APPLICATION FILED DEC. 4, 1909.

1,013,875.

Patented Jan. 9, 1912.

2 SHEETS—SHEET 1.



Witnesses
Chas. F. Bassett
W. A. Milord

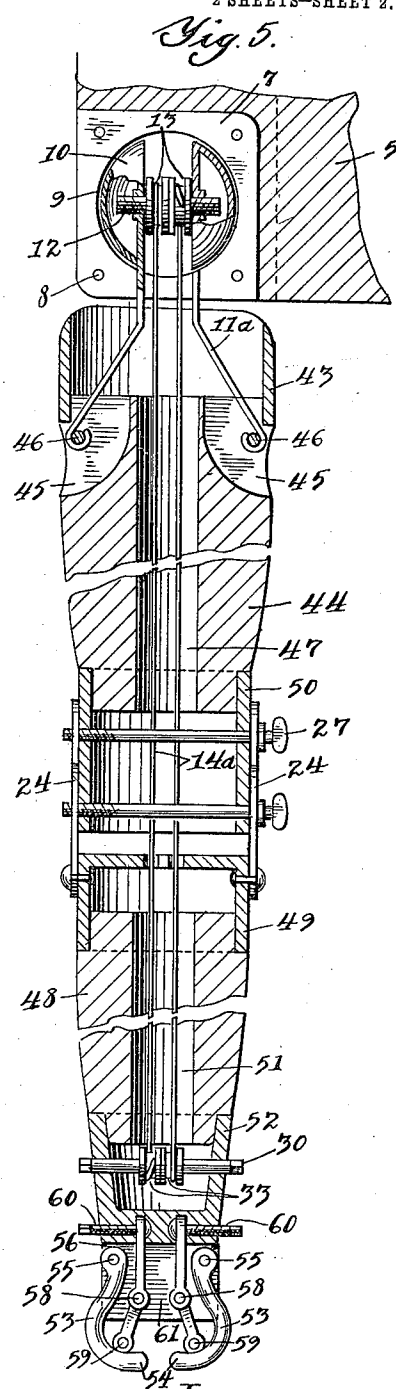
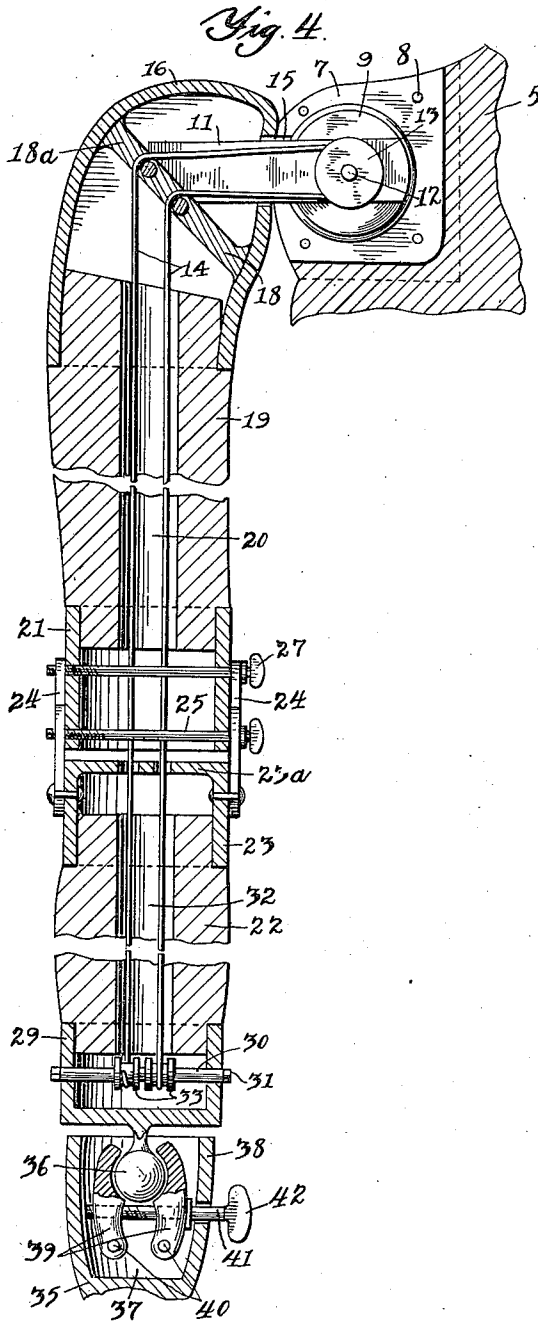
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2 SHEETS—SHEET 2.



Witnesses:

M. E. Schellman.
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UNITED STATES PATENT OFFICE.

MICHAEL J. FORQUER, OF GREELEY, COLORADO.

GARMENT-DISPLAY FORM.

1,013,875.

Specification of Letters Patent.

Patented Jan. 9, 1912.

Application filed December 4, 1909. Serial No. 531,332.

To all whom it may concern:

Be it known that I, MICHAEL J. FORQUER, citizen of the United States, residing at Greeley, in the county of Weld and State of Colorado, have invented certain new and useful Improvements in Garment-Display Forms, of which the following is a specification.

My invention relates to means for displaying wearing apparel and refers especially to devices simulating the human body and its members, and designed to have garments exhibited thereon.

The chief objects of the improvements which constitute the subject matter of this application for patent are:—to provide a garment manikin or dummy comprising a body having articulated members attached thereto by suitable means, so that said members may be placed in different relative positions in order to properly display the garments placed thereon; and to furnish means for retaining the limbs in the desired attitudes when adjusted until new adjustments are desired.

Further objects of this invention are:—to provide means whereby the mechanism of the larger joints or connections of the limbs to the body may be manipulated by devices located near the corresponding extremity, thus permitting the joints to be fixed or made loose as required without removing or disturbing the garments with which the form is covered; to furnish means whereby the entire apparatus may be removably secured to a suitable support, and to supply efficient clamping devices for removably attaching certain sections of the members.

I accomplish the desired objects by means of the appliance illustrated in the accompanying drawing, which forms a part of this application, the important details of construction being disclosed in the following views.

Figure 1 is a front elevation of the entire dummy; Fig. 2 is a longitudinal sectional view, enlarged, showing a portion of the body with attached members, Fig. 3 is a side elevation showing the lower end of a thigh, with leg and foot attached thereto. Fig. 4 is an enlarged sectional view of the arm portion of Fig. 2; and Fig. 5 is an enlarged sectional view of the leg portion of Fig. 2.

Referring to the details of the drawings, the numeral 5 indicates a body simulating

the human torso. I prefer to make this body of wood, but if desired it may be constructed of metal preferably in the form of a framework. In either case the desired outlines may be secured by means of pads 6 placed wherever required to produce the proper contour of the figure, the position of certain of the pads being indicated in dotted outlines in Figs. 2 and 3. The neck is furnished with a socket 5^a for the attachment of a head (not shown). The arms and legs are made up of articulated sections connected to the body by universal joints of the ball and socket variety, the attachment of the arms and lower extremities differing only slightly from one another. The portion of the joint attached to the body is a box formed in corresponding halves or sections 7, fastened together by rivets or screws 8. The opposing surfaces or inner walls of said sections are formed with hemispherical depressions 9 which constitute a spherical socket when the sections are in apposition, and this socket is engaged by a ball formed in hemispherical sections 10, each connected to the adjacent form member by a flat bent metal bar or strap 11, 11^a. The ball sections 10 are made concavo-convex with thin walls, to lessen the weight, and the shells thus formed are adj-justably joined together by a threaded shaft or spindle 12. The opposite ends of the spindle are furnished with right and left hand screw threads which engage corresponding threaded holes in the straps 11. Upon this spindle is fixed a pair of grooved pulleys 13, and around these are wound wires 14, each wire being secured to its pulley about which it is given several turns. The wires are then led through an opening between the box halves and pass down through the connected member, where their ends are secured in a manner hereinafter described. The upper end of the arm has fitted thereto a hollow metal casting 16 of suitable contour to which the outer portions of the straps 11 are fastened by rivets 17. This casting is furnished interiorly with an inclined partition or guide plate 18 having holes 18^a through which the wires 14 pass and are then deviated to a vertical direction.

The main portion 19 of the upper arm is preferably made of wood having an axial bore 20, and the lower end approximating the elbow joint, is furnished with a metallic ferrule 21. The fore arm 22 is provided adjacent the elbow joint with a ferrule 23

and the ferrules 21, 23, are joined together in the following manner:—Upon the outer and inner sides of the joint are arranged segmental plates 24 having tongues 24^a which are securely riveted to the lower arm ferrule 23. A bolt 25 passes transversely through these plates and the lower portion of the ferrule 21 and forms a pivot on which the plates 24, with the attached lower member, may be swung, so that the latter may be placed at different angles relatively to the upper member. The upper margin of the segment plates 24 are furnished with a series of holes 26 which may be brought successively to register with holes in the ferrule 21, the plates, when adjusted, being securely held by a transfixing bolt 27. The ends of the bolts 25 and 27 are supplied with winged heads to enable them to be easily turned. The ferrule 23 is supplied with a horizontal guide plate 23^a having holes through which the wires 14 pass.

The lower end of the fore arm 22 is supplied with a cap 29, through which is passed transversely a shaft 30, having its ends 31 projecting from each side of said cap and squared at the extremities for the application of a suitable wrench. The ends of the wires 14 are extended down through a central bore 32 in the fore arm 22 and connected to pulleys 33 fixed on the shaft 30. The wires are wound in opposite directions upon these pulleys and their upper ends are wound upon the pulleys 13 in the same manner, the arrangement being such, that when the shaft 30 is turned in one direction it will bring the hemispherical ball sections 10 together, and thus loosen the shoulder joint, and permit the attached member to be moved relatively to the body and when in the desired position, it is fixed by turning the shaft 30 in the opposite direction, which will cause the said sections 10 to move outwardly thus producing sufficient friction on the box-walls to hold the member in adjusted position.

The frictional contact in the joint may be so regulated that the limb may be moved at will to assume different postures, it being necessary to only occasionally adjust the parts as the tension becomes lessened. A hand 35 is attached to the cap by a ball joint so as to permit of a universal movement, the arrangement being as follows: Upon the center of the cap 29 is fixed a ball 36 which extends into a cavity 37 in the proximate end of the wrist 38, and is grasped by the upper ends of a pair of clamping members 39, pivoted at 40 within the wrist and controlled by a clamping screw 41, one end of which projects and is furnished with a winged head 42 to facilitate turning.

The hip-joint of the dummy is constructed upon the same principle as the shoulder joint above described, the main difference

being that the connecting plates or straps 11^a pass through a hollow casting or ferrule 43 mounted upon the upper end of the thigh 44, and enter recesses 45 in the latter, in which they are hingedly connected by pivots 46, and the ball adjusting wires 14^a pass directly down without deviation, through a central bore 47 in the thigh member. The leg 48 is surmounted by a ferrule or cap 49, which is connected to a ferrule 50 engaging the lower end of the thigh by mechanism precisely similar to that described in connection with the elbow joint. The leg has a longitudinal bore 51, through which the tensioning wires 14^a of the hip joint pass to the interior of a ferrule 52 at the ankle joint, where they are attached to pulleys 33 in the same manner as at the wrist, and operated in the same way.

The feet are formed in two lateral sections 53, having inwardly projecting flanges 54, which are adapted to engage a support (not shown), when clamped together by means to be described. The sections 53 are pivoted at 55 to ears or lugs 56 depending from the leg or ankle ferrule 52, and are swung laterally by means of levers 57 which are fulcrumed at 58 on a bracket plate 61 depending from the ferrule 52, and hingedly connected at their lower ends 59 to the foot sections. The upper ends of said levers extend into the ferrule 52 where they are attached to the ends of adjusting screws 60, which extend through the walls of the ferrule and have their projecting ends squared so that they may be turned by means of a suitable key or wrench.

The function of the various devices having been stated in connection with the description of their construction a brief description of the general operation of the apparatus will suffice to give a clear understanding of the appliance. A suitable stand or base (not shown) being provided the feet are clamped thereon by means of a wrench applied to the screws 60. Before mounting the form it is advisable to have all the joints snugly adjusted, and after having been attached to the support or base, the different joints may be further adjusted if required to place them in suitable condition to be readily moved as required. The garments to be displayed are then placed upon the figure, and the limbs and body arranged in any posture desired.

Having thus described my invention what I claim as new, is:—

1. In a display-form, the combination of two members representing different parts of the human figure, and means for adjustably connecting said members, said means comprising a socket in one member, expandable devices adapted to frictionally engage said socket walls, said devices connected with the other member, and means for expanding and

contracting said devices said means comprising pulleys mounted in both of said members, wires connecting said pulleys and means for manually operating some of said
5 pulleys.

2. In a display-form, the combination of two members representing different parts of the human figure, and means for adjustably connecting said members, said means comprising a socket having spherical walls,
10 hemi-spherical devices adapted to frictionally engage the walls of said socket, and

connected with the other member, a shaft connecting said devices and adapted to expand and contract same, pulleys mounted
15 on said shaft, wires arranged on said pulleys, and means for normally manipulating said wires.

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

MICHAEL J. FORQUER.

Witnesses:

W. G. HAYDEN,
T. E. GLAZIER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."