E. T. PALMENBERG.

ARM ADJUSTING DEVICE FOR DISPLAY FIGURES.

APPLICATION FILED APR. 6, 1918.

1,272,992. Patented July 16, 1918.

Fig. 1.

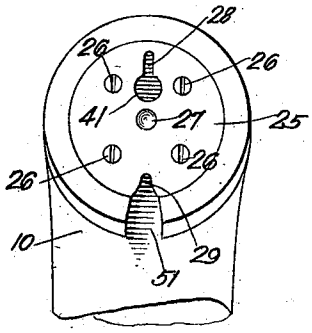


Fig. 2.

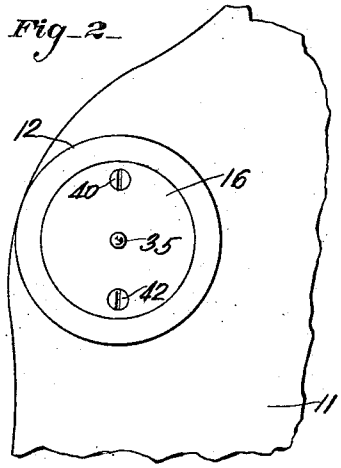


Fig. 4.

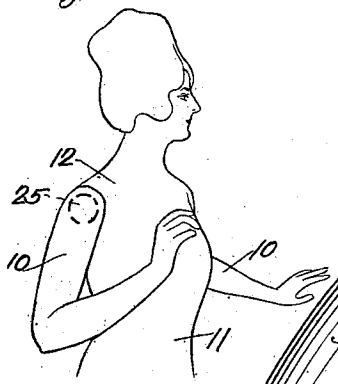


Fig. 3.

WITNESSES

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ARM-ADJUSTING DEVICE FOR DISPLAY-FIGURES.

1,272,992. Specification of Letters Patent. Patented July 16, 1918.

Application filed April 6, 1918. Serial No. 227,130.

To all whom it may concern:

Be it known that I, EMIL T. PALMENBERG, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Arm-Adjusting Device for Display-Figures, of which the following is a full, clear, and exact description.

The invention relates to display figures of wax or other suitable material, and its object is to provide a new and improved arm adjusting device for such figures, to facilitate dressing and draping of the same and to give any desired pose to the arm. Another object is to permit the manufacturer to separately manufacture the body and the arms and to allow convenient packing and safe shipping of the display figure with the arms detached. Another object is to permit the interchange of different forms of arms on the same body of a display figure, thus enabling a manufacturer to supply a display figure with a desired set or sets of arms, and to enable the user to place a desired pair of arms on a display figure.

With these and other objects in view, the invention consists of certain novel features of construction, as hereinafter shown and described and then specifically pointed out in the claims.

A practical embodiment of the invention is represented in the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a rear face view of a portion of one arm provided with a pivotal attaching holding member;

Fig. 2 is a side elevation of a portion of the body of a display figure provided with a pivotal holding member;

Fig. 3 is an enlarged sectional side elevation of the adjusting device in position on the shoulder and arm of a display figure; and

Fig. 4 is a perspective view of a display figure provided with the improved arm adjusting device.

Each of the arms 10 of a display figure 11 is connected with the corresponding shoulder portion 12 of the display figure in such a manner as to permit detaching the arm or swinging the same up or down to facilitate draping of the display figure to allow interchange of arms of different shapes. In each shoulder 12 of the display figure 11 is secured a block 15 of wood or other suitable material, and on the face of this block 15 bears a shoulder plate 16, preferably in the form of a disk having a hub 17 mounted to turn centrally in the block 15. On the hub 17 is secured one end of a bolt 18 extending through the block 15 and projecting beyond the rear face of the block, as plainly indicated in Fig. 3. On the inner end of the bolt 18 screws a wing nut 19 against which abuts one end of a coil spring 20 seated on the rear face of the block 15. By the arrangement described the spring 20 exerts an inward pressure on the nut 19 of the bolt 18, and as the latter is secured to the hub 17 of the shoulder plate 16 it is evident that the latter is in firm frictional contact with the outer face of the block 15. By adjusting the wing nut 19, a desired tension can be given to the spring 20, it being understood that the wing nut 19 can be reached through the bottom of the hollow display figure 11 whenever it is desired to adjust the tension of the spring 20.

The outer face of the shoulder plate 16 is flush with the corresponding side of the shoulder 12, and on the outer face of the shoulder plate 16 fits an arm plate 25 secured by screws 26 to the arm 10, the outer face of the arm plate 25 being flush with the upper end of the arm 10. The arm plate 25 is provided with a central recess 27 above which is located a bayonet slot 28, and a cut-out portion 29 is arranged on the bottom of the plate 25 diametrically opposite the bayonet slot 28. The bayonet slot 28 is adapted to be engaged by a headed stud 30 secured to the shoulder plate 16, and a similar headed stud 31 on the shoulder plate 16 is adapted to engage the cut-out portion 29 to detachably fasten the arm plate 25 in position on the shoulder plate 16, as plainly indicated in Fig. 3.

The central recess 27 in the arm plate 25 is engaged by a pin 35 mounted to slide centrally in the shoulder plate 16 and provided with a collar 36 slidably fitting the hub 17. A spring 37 is arranged within the hub 17 and rests with one end on the inner end of the bolt 18 and presses with its other end against the collar 36 to hold the pin 35 in engagement with the recess 27 thus preventing accidental detachment of the arm plate 25 from the shoulder plate 16.

It will be noticed that when an up or down swinging motion is given to the arm

10, its plate 25 turns the plate 16, and as the latter is held in frictional contact with the face of the block 15 by the action of the spring 20 it is evident that the arm 10 remains in whatever position it is moved into by the user. Thus the arm may be posed to suit the taste of the decorator.

In order to facilitate the draping or dressing of the display figure, it is sometimes desirable to remove one or the other arm or both, and in order to do so it is only necessary to exert a slight pressure in an upward direction against the arm 10 until the head 40 of the stud 30 reaches the enlarged portion 41 of the bayonet slot 28 and the head 42 of the stud 31 is out of engagement with the cut-out portion 29. The arm can now be lifted sidewise off the shoulder 12 of the display figure 11. When it is desired to re-attach the arm 10 to the corresponding shoulder 12 of the display figure 11 then it is only necessary for the operator to engage the stud 30 with the enlarged inner end 41 of the bayonet slot 28 and then push the arm downward to move the stud 30 into the small end of the bayonet slot 28 and to engage the cut-out portion 29 with the stud 31 until the studs 30 and 31 reach the ends of the bayonet slot 28 and the cut-out portion 29 and the center pin 35 reëngages the central recess 27.

In order to facilitate disengagement of the head 40 from the enlarged portion 41 of the bayonet slot 28 when detaching the arm 10 from the shoulder 12, the wall 43 of the enlarged portion 41 of the bayonet slot is provided at the rear face of the plate 25 with a bevel so that the head 40 readily slides out of the enlarged portion 41.

The upper end of the arm 10 is provided with a recess 50 for the passage of the head 40 of the stud 30, and a cut-out portion 51 on the arm provides a passage for the head 42 of the stud 31 when engaging the plate 25 with the said studs and disengaging the plates therefrom. By the arrangement described a pivotal detachable connection is had between the arm 10 and the shoulder 12 of the display figure to permit of swinging the arm into a desired position and holding the arm in the adjusted position, or to permit of detaching the arm whenever it is desired to do so either for interchanging, dressing or other purposes.

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

1. An arm adjusting device for display figures, comprising a spring pressed member rotatably mounted on a shoulder of a figure, a member fixed on an arm, and means detachably connecting the members with each other, the arm member being adapted to turn the shoulder member on swinging the arm up or down and the shoulder member holding the arm member and arm in the adjusted position.

2. An arm adjusting device for display figures, comprising a plate held under tension on a shoulder of a figure, a plate secured to an arm, and means detachably connecting the plates with each other, the arm plate being adapted to impart a turning motion to the tension plate on swinging the arm up or down, the tension plate holding the arm plate and its arm in the adjusted position.

3. An arm adjusting device, comprising a supporting block fixed in a shoulder of a display figure, a spring-pressed shoulder plate mounted to turn on the block and held against the face thereof by the tension of the spring of the plate, an arm plate fixed on an arm of the display figure, and means detachably connecting the arm plate with the said shoulder plate.

4. An arm adjusting device, comprising a supporting block fixed in a shoulder of a display figure, a spring-pressed shoulder plate mounted to turn on the block and held against the face thereof by the tension of the spring of the plate, an arm plate fixed on an arm of the display figure, the said arm plate being provided with a bayonet slot and a marginal cut-out portion, and headed studs on the said shoulder plate, one of the studs being engaged by the bayonet slot and the other stud being engaged by the said cut-out portion.

5. An arm adjusting device, comprising a supporting block fixed in a shoulder of a display figure, a spring-pressed shoulder plate mounted to turn on the block and held against the face thereof by the tension of the spring of the plate, an arm plate fixed on an arm of the display figure, means detachably connecting the arm plate with the said shoulder plate, and a spring-pressed pin slidably arranged on the said shoulder plate and bearing against the pin.

6. An arm adjusting device, comprising a block fixed in a shoulder of a display figure, a shoulder plate on the outer face of the said block and having a hub mounted to turn in the said block, a bolt attached to the said hub and provided with a nut, a spring coiled on the bolt and resting with one end on the inner face of the block and pressing with its other end against the said nut, an arm plate attached to an arm of the display figure and provided with a nut, a spring coiled on the bolt and resting with one end on the inner face of the block and pressing with its other end against the said nut, an arm plate attached to an arm of the display figure and provided with a central recess, a bayonet slot, a bayonet slot above the said central recess, a marginal cut-out portion located diametrically op-

posite the said bayonet slot, headed studs on the said shoulder plate and engaging the said bayonet slot and said cut-out portion, and a spring-pressed pin held in the shoulder plate and engaging the said central recess.

7. An arm adjusting device, comprising a supporting block fixed in a shoulder of a display figure, a spring-pressed shoulder plate mounted to turn on the block and held against the face thereof by the tension of the spring of the plate, an arm plate fixed on an arm of the display figure, the said arm plate being provided with a bayonet slot and a marginal cut-out portion, and headed studs on the said shoulder plate, one of the studs being engaged by the said bayonet slot and the other stud being engaged by the said cut-out portion, the said bayonet slot having its enlarged portion provided with a beveled wall at the rear face of the plate.

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