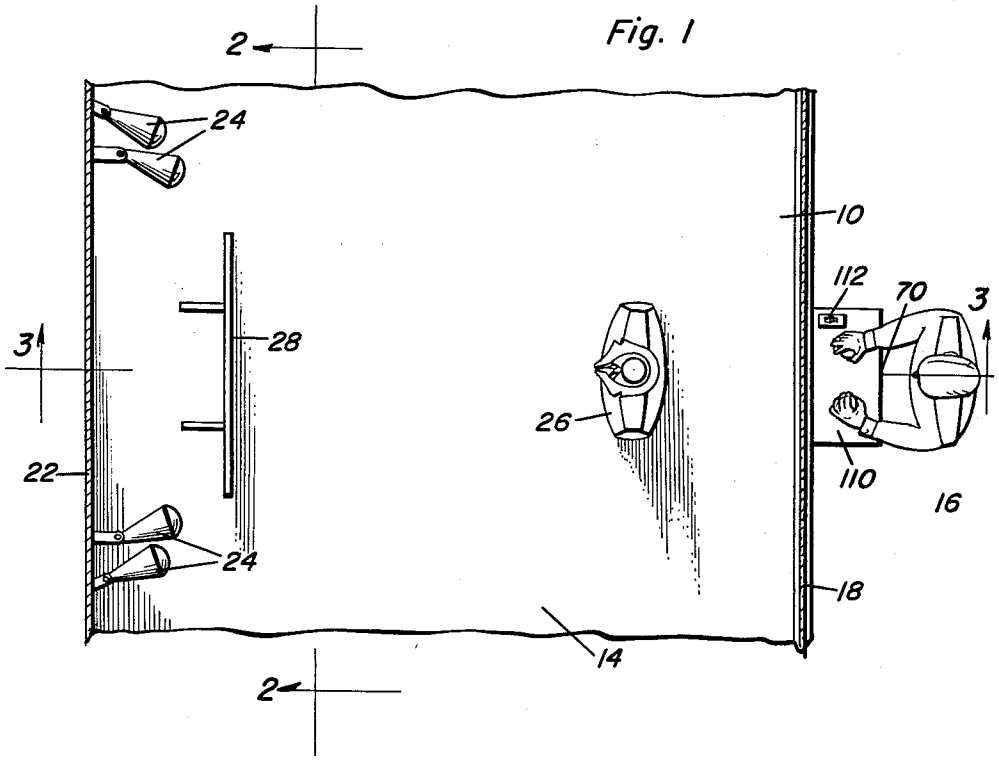
July 17, 1962 T. C. NICHOLLS, JR 3,044,187

DISPLAY DEVICE

Filed March 13, 1959 2 Sheets-Sheet 1

Fig. 1



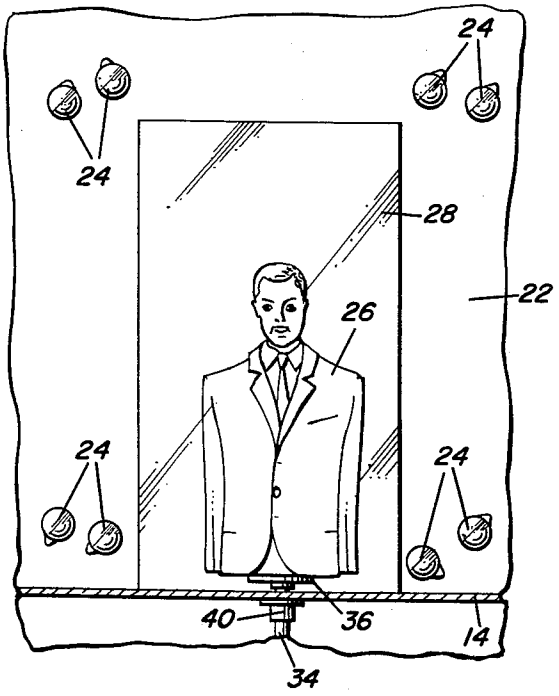


Fig. 2

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DISPLAY DEVICE

Filed March 13, 1959 2 Sheets-Sheet 2

Fig. 3

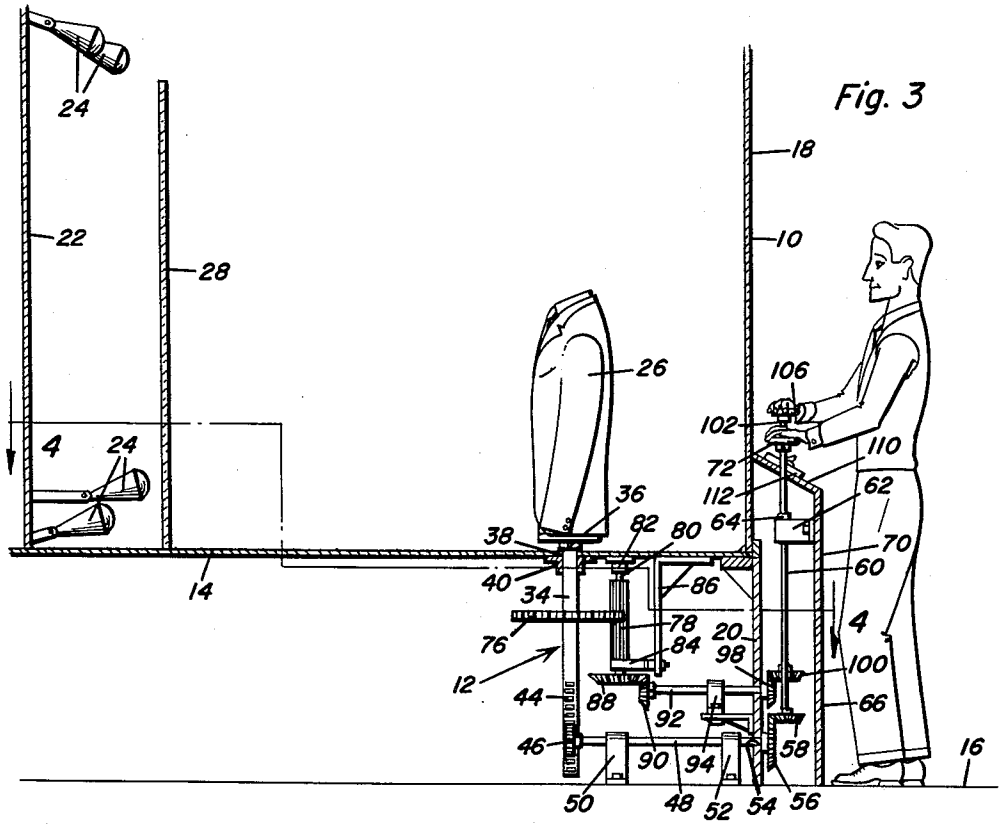
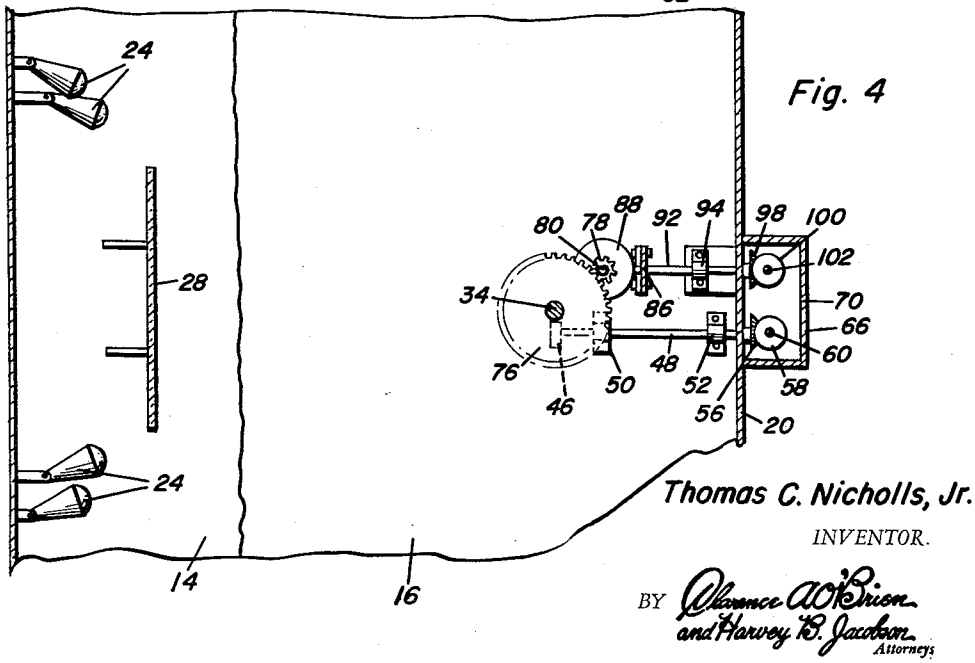


Fig. 4



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DISPLAY DEVICE

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5 Claims. (Cl. 35—56)

This invention relates to display devices and more particularly to a display device to enable a prospective customer to observe how a particular piece of wearing apparel would appear on him or on her without trying on the wearing apparel.

There have been display devices proposed in the past which would enable an individual to observe his image in a mirror and at the same time observe how an article of wearing apparel would appear on the person without being clothed in the wearing apparel. However, no means have ever been provided for adjusting the apparel position with reference to the body of the prospective customer so that he may obtain different angles of vision. Further, there have been no means proposed in the past for compensating for different heights of prospective customers.

An object of this invention is to provide a display device by which an article of wearing apparel, for example a coat, may be maintained within a showcase and a customer prospect remain on the outside of the showcase and see his reflected image superposed behind the coat. Further, there is the provision of means under the control of the customer prospect for vertically adjusting the position of the coat or the like and also for rotationally adjusting the position of the wearing apparel, while the prospect remains on the exterior of the showcase.

A further object of this invention is to achieve the foregoing objects by mechanically simple means that are comparatively easily installed in many existing showcases in stores. The invention not only promotes the sale of a particular coat, blouse, etc. which is displayed but also has considerable novelty value with the controls located on the exterior of the showcase and under the direction of anyone in the general public noticing the display.

Another object of the invention is to provide a platform or an equivalent by which to support a holder, a manikin, etc. on which an article of wearing apparel is supported, the platform being located in a showcase and on the same side of a mirror as a prospective customer station but in between the mirror and the station. In addition the invention has a mechanical movement for elevating, lowering and selectively rotating the wearing apparel supporting platform so that the orientation of the clothing and the vertical position of the clothing may be adjusted in accordance with the desires of the customer prospect.

Although the invention may be practiced by a construction which is for the most part, concealed beneath the floor of a showcase, having only the manikin or wearing apparel support above the bottom of the showcase, it is also within the contemplation of the invention to provide all of the operating mechanism in a neat, compact housing which could be mounted on the bottom of the showcase and have the wearing apparel supporting platform recessed within or mounted slightly above the top surface of the housing. Such a modification of this invention is well suited for showcases or other display windows where the floor is so constructed that it is difficult to install the necessary mechanism beneatth the floor. Such a construction also is admirably suited for showcases or other display windows where the floor is very low with reference to the sidewalk on the outside of it.

The main or principal embodiment of the invention, though, requires only a single small hole in the floor of a showcase, postulating a small amount of space beneath

the floor of the showcase within which to install the adjusting mechanism for the wearing apparel. In most showcase structures there will be enough space beneath the floor to accommodate all of the necessary working parts of the invention. In those instances where no such space is available or readily accessible, other mechanical expedients may be resorted to such as the example modification discussed above.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawing forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

FIGURE 1 is a top plan view of a part of a showcase equipped with a display in accordance with the invention.

FIGURE 2 is a sectional view taken on the line 2—2 of FIGURE 1.

FIGURE 3 is a sectional view taken on the line 3—3 of FIGURE 1.

FIGURE 4 is a sectional view taken on the line 4—4 of FIGURE 3.

In the accompanying drawings showcase **10** is illustrated to exemplify a typical part of a store wherein display device **12** may be installed. Although the term "showcase" is used herein, it is to be clearly understood that this expression is meant to include any area, device, section, window space, etc., capable of being used for merchandising display. A typical such showcase would be a store front having a floor or bottom **14** elevated above the sidewalk **16** on the exterior of the building. Window **18** is at the front of floor **14**, and there is usually a short wall **20** beneath the window and extending down to sidewalk level. The back wall **22** of the showcase is typical and is ideally suited to support a group of floodlights **24** used for lighting the wearing apparel **26** located between wall **22** and window **18**. Apparel **26** is a man's coat, although it is to be understood that the article of apparel that is displayed may be varied in accordance with the desires of the store proprietor. Mirror **28** is mounted in an approximately vertical plane and is located between apparel **26** and back wall **22**. A customer prospect (FIGURES 1 and 3) standing on the exterior of the buliding showcase occupies a customer prospect station at which the customer may look through window **18** and see his image in mirror **28**. At the same time the image of apparel **26** is observable and the illusion that apparel **26** is being worn by the customer prospect is generated. The viewed image has the apparel **26** superposed over the front of the customer prospect.

Apparel **26** is placed on a manikin or some other type of apparel support which is carried by the upper end of shaft **34**. A number of structures may be used for coupling the apparel support to the shaft **34**, for example a small platform **36** provided with a setscrew and collar, may be attached to the upper extremity of shaft **34** and have the apparel support attached to it. As seen in FIGURE 3, shaft **34** extends through a small opening **38** in the showcase bottom **14**. To facilitate ease of rotation bearing **40** is preferably attached to the bottom surface of bottom **14** and has shaft **34** mounted not only for rotation but also for axial sliding movement in the bearing.

There are means operable from the exterior of window **18** for vertically adjusting apparel **26** by axially moving shaft **34**. These means preferably consist of a group of rack teeth **44** extending circumferentially around shaft **34**, together with pinion **46** which is enmeshed therewith. The pinion is at the inner end of a lay shaft **48** supported by bearings **50** and **52**. The lay shaft extends through an opening **54** in wall **20** and has a bevel gear **56** se-

cured to the end of shaft **48** on the outside of wall **20**. Bevel gear **58** is meshed with gear **56** and has shaft **60** secured to it. This shaft is supported vertically by bearing **62** and collar **64** on the shaft. The collar abuts the upper surface of bearing **62**, and the bearing **62** is carried by the front wall **66** of a housing **70**. The housing is on the exterior of the showcase and may be fixed by attaching it to wall **20**. Hand wheel **72**, a handle or the like is attached to the upper extremity of shaft **60** so that the potential customer may rotate shaft **60** which ultimately causes shaft **34** and the apparel **26** to be vertically adjusted. The drive train includes shaft **60**, bevel gears **58** and **56** together with lay shaft **48**, and rack and pinion **44** and **46**.

There are additional means connected with shaft **44** for rotating the shaft so that the apparel **26** may be rotated to selected positions of adjustment. These means consist of gear **76** which is fixed to shaft **34** intermediate its upper and lower ends, together with a long pinion **78** which is mounted on shaft **80**. Shaft **80** is supported in a bearing **82** at its upper end, the bearing being attached to the bottom surface of the showcase bottom **14**. Lower bearing **84** within which shaft **80** is mounted for rotation, is supported by a hanger **86** which is also attached to bottom **14**. Bevel gear **88** is at the lower extremity of shaft **80** and is enmeshed with bevel gear **90**, the latter fixed to lay shaft **92**. The lay shaft is mounted for rotation in a bracket supported bearing **94**, and has a miter gear **96** at its outer end and located in the housing **70**. Miter gear **100** is fixed to control shaft **102**, the latter being mounted for rotation in a bearing identical to bearing **62** and carried by a wall of the housing **62**. There is a hand wheel **106** or the like at the upper extremity of shaft **102**, and as is hand wheel **72**, is under the control of the potential customer. When hand wheel **106** is rotated, shaft **34** is correspondingly rotated through the drive train including shaft **102**, gears **100** and **98**, lay shaft **92**, gears **90**, **88**, **78** and **76** respectively.

Housing **70** conceals the miter gears on the exterior of wall **20** and has an upper angulated panel **110** at its upper end. Switch **112** is mounted on panel **110** and is wired in circuit with the flood lamps so that these, too, may be under the control of the prospective customer.

In use, the prospective customer stands in the prospective customer station on the exterior of window **18** and may energize the flood lights by operating switch **112**. He may then rotate either or both of the hand wheels to have the apparel **26** rotated to selected adjusted position and/or elevated and lowered. While the apparel is being so manuevered and after maneuvers are complete, the customer prospect may observe the composite image in mirror **28**. The composite image consists of a portion of the body of the customer prospect, usually only his head, together with the apparel **26**.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. A display device for a display organization which includes an upright mirror, a prospective customer station and an article of apparel located between said mirror and said station, said display device comprising an apparel support, means for moving said apparel support in one direction, means for moving said apparel support in another direction while the person in said station views a composite image of the apparel and a part of his body in the mirror, the first mentioned moving means having a control at said station, the second mentioned moving means having a control at said station, and a window intervening between said controls and said apparel support in alignment therewith and with the mirror, the composite image in said mirror being observable through the window by said person in said station at said controls.

2. In a display, the combination of a generally upright mirror, a generally horizontal floor, a shaft, said floor having an opening disposed forwardly of the mirror, a portion of said shaft extending through said opening and a portion of said shaft extending below said opening, an apparel support on the portion of said shaft extending above said floor, said support being disposed in front of the mirror whereby the mirror will reflect an image of the support means connected with said shaft for adjusting the position of said shaft, said shaft adjusting means moving said shaft in a direction parallel to the axis of rotation of said shaft so that the elevation of the support may be altered, further means connected to said shaft for rotating said shaft to adjust the orientation of said support, said shaft rotating means including a control member, said means for axially moving said shaft including a control member, a window intervening between said control members and said support, said control members located on the exterior of said window to be operable by a prospective customer operating said control members.

3. The combination of claim 2 wherein there is at least one flood light adjusted to direct a beam of light over said support and onto the apparel, and a control switch connected in circuit with said flood light and located adjacent to said control members.

4. The combination of claim 2 wherein said means for axially moving said shaft include a rack and pinion associated with said shaft.

5. The combination of claim 2 wherein said means for rotating said shaft include a gear attached to said shaft, a second gear enmeshed with the last mentioned gear, one of said gears being elongate so that said shaft may move axially with said gears remaining in engagement.

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