

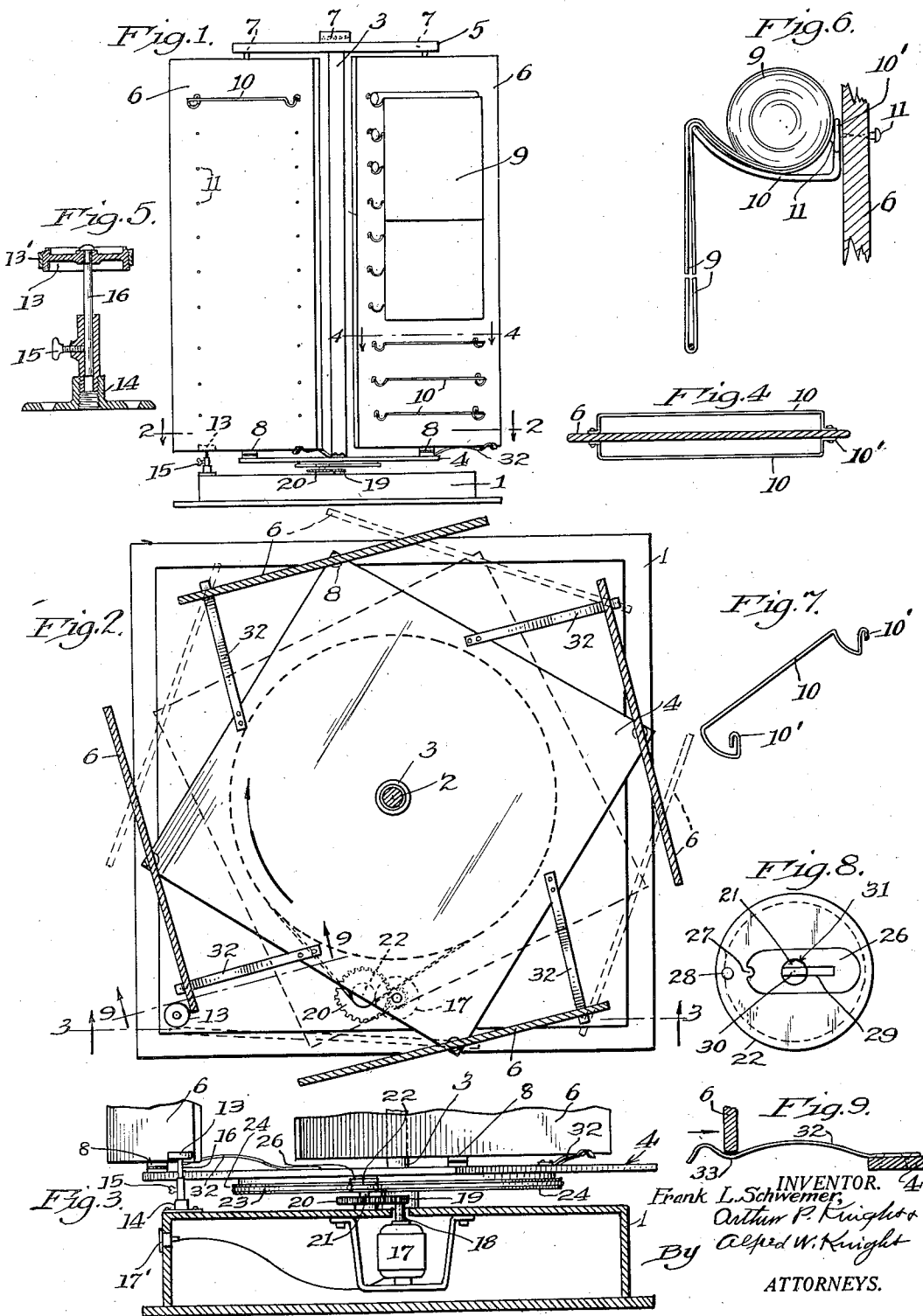
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F. L. SCHWEMER

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STOCK DISPLAY MEANS

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INVENTOR. 4
 Frank L. Schwemer,
 Arthur P. Knight
 By Alfred W. Knight
 ATTORNEYS.

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STOCK DISPLAY MEANS

Frank L. Schwemer, Glendale, Calif.

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This invention relates to display means for wall-paper or other articles of stock or merchandise and the main object of the invention is to provide for display of a large number of such articles in such manner that all of the articles will be presented successively to display position.

A further object of the invention is to provide means for automatic operation of the display means.

Another object of the invention is to provide means whereby the display means may be operated automatically or manually as may be desired.

The accompanying drawing illustrates an embodiment of my invention, and referring thereto:

Fig. 1 is a side elevation of the display means;

Fig. 2 is a horizontal section thereon on line 2—2 in Fig. 1;

Fig. 3 is a vertical section on line 3—3 in Fig. 2;

Fig. 4 is a partial horizontal section on line 4—4 in Fig. 1;

Fig. 5 is a section on line 5—5 in Fig. 2, showing the tappet means for shifting the position of the display members;

Fig. 6 is an end elevation of the bracket means for supporting the wall-paper rolls or other articles, together with a roll of wall-paper thereon;

Fig. 7 is a perspective of one of said brackets;

Fig. 8 is a plan view of the clutch means for releasing the connection between the driving means and the display apparatus;

Fig. 9 is a section on line 9—9 in Fig. 2.

The display apparatus shown in the drawing comprises a base 1, a post or standard 2 extending vertically on said base, a rotatable frame or carrier member mounted to turn on said post, and a plurality of panels or display members carried by said rotatable frame or carrier member.

The rotatable frame or carrier member aforesaid may comprise a vertical tube 3 surrounding the post 2 and mounted to turn on a bearing 7 at the upper end of said post, a bottom plate or frame 4 mounted on the lower end of said tube 3 and a top plate or frame 5 mounted on the upper end of said tube. There may be any desired number of display members or panels indicated at 6 mounted on said rotatable frame; for example, there may be four such panels as shown in the drawing, mounted at angularly equal distances on the rotatable frame. Each of said panels or members 6 may be swivelled or pivoted centrally at its upper and lower ends, as indicated at 7 and 8 on the respective frame means 5 and 4, so that each of said members 6 is free to turn on the said rotatable frame means independently of

the others of said devices. The bearings for supporting the said display members 6 on the rotatable frame and the bearings for supporting the rotatable frame on its fixed supports may be of any suitable construction, but the bearing 7 for the rotatable frame and the lower bearings 8 for members 6 are preferably ball bearings, so that the operation of the display apparatus, either manually or automatically, may be effected with minimum friction.

Each of the display members or panels 6 is provided with means for supporting thereon the articles 9 to be displayed, said means consisting, for example, of brackets 10 of any suitable construction and preferably detachably mounted on the display member 6, for example, by means of hooks 10' on the means 10 engaging with headed studs 11 on the member 6.

The display members 6 are provided with means for supporting wall-paper rolls or other articles on each side of such members and means are provided for automatically turning or angularly shifting each member 6 through a semi-rotation as the rotatable supporting frame turns past a certain position so as to eventually exhibit or display the articles on both sides of each member 6. For this purpose a tappet means 13 is mounted in a suitable position on the base 1 so as to engage the member 6 and cause it to turn on its pivots 7 and 8. In order to enable the display means to be used without such automatic rotation of the display members, the tappet means 13 is preferably mounted to slide vertically on its support 14, means, such as a set screw 15, being provided to hold it in elevated position so as to engage the display member 6. I have found it desirable to make the tappet means in the form of a wheel mounted to rotate on a vertical post 16, which extends in a vertical bore in the support 14 and is clamped by the set screw 15. The tappet wheel 13 is preferably formed with a soft rubber tire 13' which engages the display member 6 with a rolling contact, substantially eliminating noise, friction, and wear.

Means are provided for automatically rotating the rotatable frame, this operation being effected by a motor, such as an electric motor 17 mounted on or within the base 1 and connected to drive the rotatable frame through any suitable driving connection. Said motor is electrically connected to socket means 17' for supplying electric current thereto. The motor 17 is preferably provided with the usual speed reducing means and the shaft 18 operated thereby may be provided with a pinion 19 driving a gear wheel 20 on a

counter shaft 21, on which is also mounted a pulley 22 connected by belt 23 to a larger pulley 24 on the bottom member 4 of the rotatable frame. I prefer to provide manually releasable clutch means in the connection between the motor and the rotatable frame so that the frame may be disconnected from the motor when it is desired to operate the display means manually. Any suitable clutch means may be used for this purpose, for example, the means shown in Fig. 8, comprising a key member 26, mounted to slide on top of the pulley 22 and provided at one end with a notch 27 adapted to engage the pin 28 on said pulley, said slide member 26 being also provided with a slot 29 adapted to engage a flattened projection or key 30 at the upper end of the shaft 21 and said slide being provided at one end of said slot with a circular enlargement 31 adapted to permit free rotation of key portion 30 of the shaft within said enlargement when the parts are in the position shown in Fig. 8. By shifting the slide 26 so as to cause notch 27 to engage pin 28 and slot 29 to engage key portion 30, the shaft 21 is keyed or clutched to the wheel 22 so as to enable the motor 17 to effect rotation of the rotatable frame and the display members carried thereby.

A retaining member formed, for example, as a leaf spring 32 is provided for each of the display members 6 so as to hold said member in proper position for display, except when it is being turned on its pivots as above described. Said retaining means may be secured at one end to the lower member 4 of the rotatable frame and is provided near its outer or free end with a depressed seat portion 33 adapted to receive and engage the bottom of member 6 to hold it by frictional engagement in proper position. The outer end of the resilient member 32 is bent downward so as to enable the member 32 to be depressed by the member 6 as the latter rides thereover during its angular shifting.

When the device is set for automatic operation, the clutch means 26 is in position to connect shaft 21 with pulley 22 so that when the motor 17 is set in operation, the rotatable frame is caused to turn slowly and to successively bring each of the display members 6 into position for exhibition at any side of the apparatus which may be used as the front or exhibiting side. As each display member 6 comes to position as indicated in broken lines at the bottom of Fig. 2, in which its forward portion makes contact with the tappet wheel 13, continued rotation of the rotatable frame in the direction shown by the arrow, causes the said member 6 to be turned on its pivots or swivel supports 7 and 8 by engagement of said member with the tappet 13, whereby the said member 6 is caused to rotate through a semi-rotation on the rotatable support. To enable the display member to be turned through one-half revolution or reversed in this manner, the portion of said display member, which engages with the tappet, is straight and extends transversely or diametrically with reference to the axis of rotation of the display member and is formed with parallel flat tappet-engaging faces on opposite sides thereof and the tappet means runs along one face of this tappet-engaging portion of the display member until the center of said tappet-engaging portion is reached, at which time the display member has been turned one-quarter revolution and then in the further rotation the same portion of the tappet-engaging member again engages with the tappet means to

complete the one-half revolution. The display member then remains in fixed position with relation to the carrier member until the next succeeding revolution of said carrier member, at which time the other face of the flat or straight tappet-engaging portion of the carrier member engages with the tappet means to effect another one-half revolution. When the member 6 has been rotated to position shown in full lines at the left of Fig. 2, the tappet wheel 13 has traversed the entire width of member 6 and has, in completing the semi-rotation of said member, caused the bottom edge of said member at the other side of its pivot to ride over the bent outer portion of the retaining spring 32 into the seat or depression 33 on said spring, which then holds the display member in that position until the next contact with the tappet wheel. I have shown only one tappet wheel in the drawing, but it will be understood that any desired number of tappets may be used according to the number of half turns desired for the display members in each rotation of the rotatable frame. I prefer, however, to provide for operation in such manner that each display member is only rotated on the carrier member during a portion of the time. Thus, by providing a single tappet member for several display members, as shown in the drawing, the operation is such that only one display member is being turned at any one time, thereby concentrating the observer's attention on the goods displayed on that member.

When it is desired to use the apparatus for manual operation, the clutch means 26 is released by sliding it into position in which the circular opening 30 registers with the shaft 20 and the tappet means 13 is lowered, by releasing set screw 15, whereupon the rotatable frame may be turned by hand, if desired, to bring any one of the display members to exhibiting position.

Any one of the display members 6 may be turned by hand at any time, whether the rotatable frame is in motion or at rest, and whatever may be the position in which said members are placed by such manual operation, they will be brought to proper display position, as indicated in the drawing, by the operation of the tappet means thereon in the rotation of the rotatable frame.

I claim:

1. Stock display means comprising a support; a carrier member mounted to rotate on said support; a plurality of display members pivotally mounted on said carrier member, each of said display members being provided with means for supporting articles to be displayed at each side thereof; means for rotating said carrier member on its support; tappet means on said support for engaging and rotating said display members, each of said display members having a straight tappet-engaging portion extending diametrically with reference to the axis of the display member and adapted to engage the tappet member to cause said display member to turn a one-half revolution on its pivotal support so as to alternately display different sides of each display member, and retaining means releasably engaging the display members to releasably hold said members in definite angular position on the rotatable frame but to permit the display members to be turned from said position by the operation of the tappet means, said retaining means comprising resilient means mounted on the carrying member and having a depressed portion engaging a portion of the display member.

2. Stock display means comprising a support; a carrier member mounted to rotate on said support; a plurality of display members pivotally mounted on said carrier member, each of said display members being provided with means for supporting articles to be displayed at each side thereof; means for rotating said carrier member on its support; tappet means on said support for engaging and rotating said display members, each of said display members having a straight tappet-engaging portion extending diametrically with reference to the axis of the display member and adapted to engage the tappet member to cause said display member to turn a one-half revolution on its pivotal support so as to alternately display different sides of each display member; a releasable connection between the rotatable frame and the means for driving the same, and means for adjustably supporting said tappet means to enable withdrawal of same from position for engagement with the display members so as to provide for manual operation of the display means.

3. Stock display means comprising a base; a rotatable frame mounted to turn on said base; a motor connected to rotate said rotatable frame; a plurality of display members pivotally mounted on said rotatable frame and provided with means at each side of each of said members for supporting articles to be displayed; and a tappet mounted on said base and adapted to engage said pivoted display members to turn the same on the rotatable frame during the rotation of said frame, each display member being provided with a tappet-engaging portion and having flat surfaces on opposite sides thereof and extending diametrically with reference to the axis of rotation of the display member, whereby each display member is turned through one-half revolution at each operation thereof, said tappet means being formed as a wheel adapted to engage the respective display members by rolling contact.

4. Stock display means comprising a base; a rotatable frame mounted to turn on said base; a motor connected to rotate said rotatable frame; a plurality of display members pivotally mounted on said rotatable frame and provided with means at each side of each of said members for supporting articles to be displayed; and a tappet mounted on said base adapted to engage said pivoted display members to turn the same on the rotatable frame during the rotation of said frame, each display member being provided with a tappet-engaging portion and having flat surfaces on opposite sides thereof and extending diametrically with reference to the axis of rotation of the display member, whereby each display member is turned through one-half revolution at each operation thereof, said tappet means being vertically adjustable to enable it to be brought into or out of position to engage and operate the display member.

5. Stock display means comprising a base; a rotatable frame mounted to turn on said base; a motor connected to rotate said rotatable frame; a plurality of display members pivotally mounted on said rotatable frame and provided with means at each side of each of said members for supporting articles to be displayed; and a tappet mounted on said base adapted to engage said pivoted display members to turn the same on the rotatable frame during the rotation of said frame, each display member being provided with a tappet-engaging portion and having flat surfaces on opposite sides thereof and extending diametrically with reference to the axis of rotation of the display member, whereby each display member is turned through one-half revolution at each operation thereof, and manually releasable clutch means in the driving connection between the driving motor and the rotatable frame.

FRANK L. SCHWEMER.