Dec. 1, 1970 T. B. MULVEY ET AL 3,543,425

DISPLAY DEVICE

Filed Aug. 21, 1968

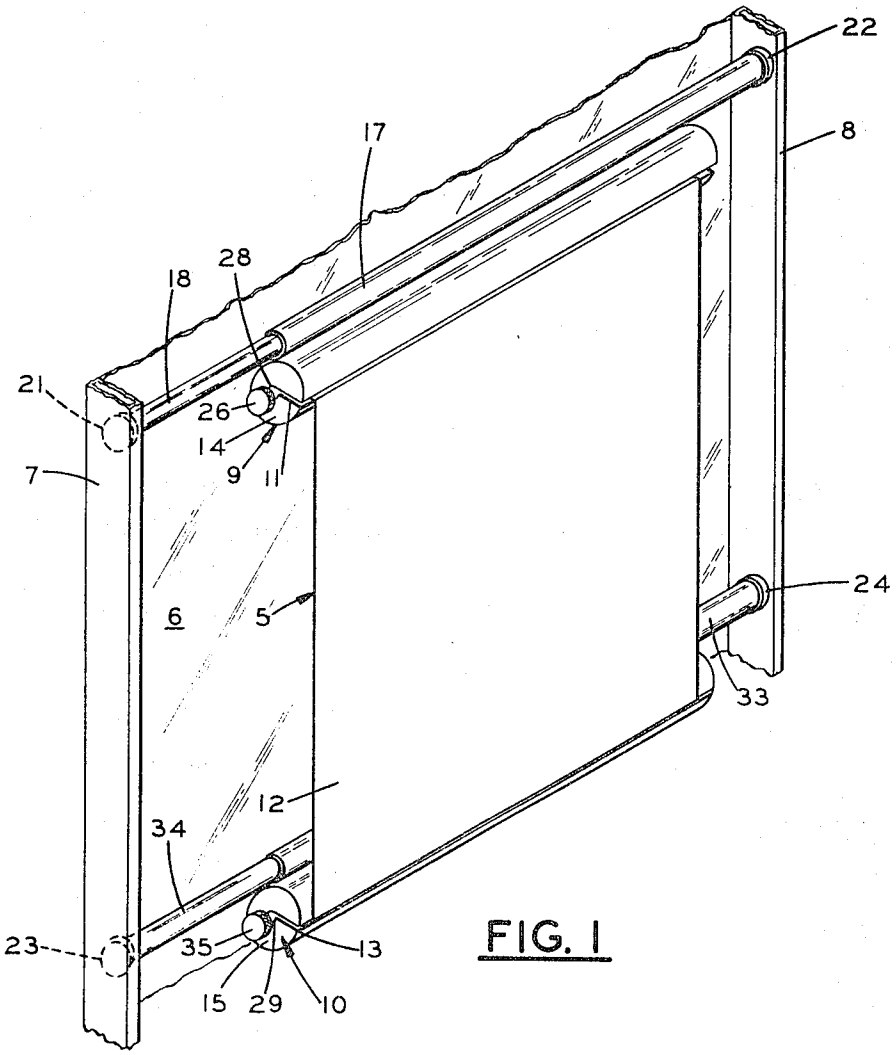


FIG. 1

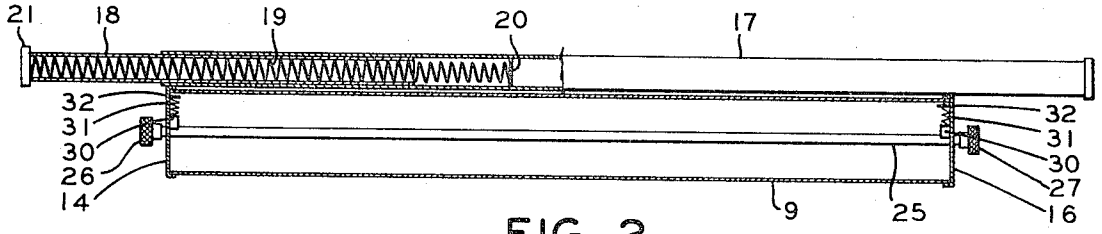


FIG. 2

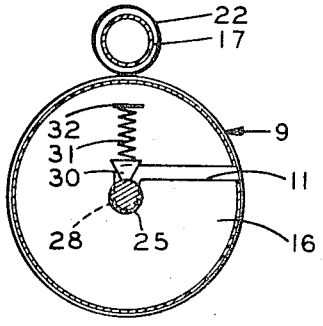


FIG. 3

THOMAS B. MULVEY
ERNIE HEGERMAN
ELWOOD V. SCHUESSLER
INVENTORS

BY Earnest Earl Edge

United States Patent Office 3,543,425
Patented Dec. 1, 1970

3,543,425

DISPLAY DEVICE

Thomas B. Mulvey, 73 SW. 1st Ave., Boca Raton, Fla. 33432; Ernie Hegerman, 6061 NW. 19th St., Fort Lauderdale, Fla. 33313; and Elwood V. Schuessler, 1301 SE. 7th St., Pompano Beach, Fla. 33060

Filed Aug. 21, 1968, Ser. No. 754,219
Int. Cl. G09f 11/24
U.S. Cl. 40—86 5 Claims

ABSTRACT OF THE DISCLOSURE

A display device having a plurality of spools between which a message carrying area is displayed with means for insertion and removal of the device between upright support members.

BACKGROUND OF THE INVENTION

Field of the invention

This invention relates in general to a display device and in more particularity to a display device which will provide a plurality of messages wound on spools and which may be mounted between two upright members to exhibit a selected message from those wound on the spools.

It is common in the art today for stores and the like which have large expanses of glass to paste or tape signs on the windows advertising their wares. Once the sign has outlived its usefulness it is removed, the windows are cleaned and a new sign is placed in position.

This method of advertising is not entirely satisfactory as the signs are applied directly to the glass of the windows. The tape or adhesive used is not always effective, the signs droop and sag, the windows must be cleaned to remove the adhesive, installing and changing the signs is time-consuming. These are only a few of the reasons that this method of advertising is not satisfactory.

Description of the prior art

There have been many signs or display devices proposed in which a plurality of messages or pictures are rolled on a spool with means for rolling the indicia onto a second spool and having a message displayed between the spools. Examples of such devices are shown in U.S. Pat. No. 3,224,127, Pat. No. 3,316,668, Pat. No. 2,467,081 and Pat. No. 2,952,931.

To our knowledge there has not been a display device of this type in which the spools can be easily installed and removed from upright members such as window frames or mullions and which can be used with a plurality of different messages without removal of the device.

SUMMARY OF THE INVENTION

It is the primary object of our invention to provide a display device which has a plurality of spools between which a message carrying area is displayed.

A further object of our invention is to provide a display device which may be easily installed and removed from support members such as window frames, etc.

A still further object of our invention is to provide a display device which may also be used as a window shade to cut down the glare from outside light.

Another object of our invention is to provide a display device wherein all the component parts may be produced and assembled quite easily by existing mass production methods and which, therefore, may be made readily available to the public at a reasonable cost.

A further object of the invention is to provide a display device which is sturdy in construction, relatively small in size, light in weight, economical in price, and relatively simple to manufacture.

Further features, objects, and advantages will either be specifically pointed out or become apparent when, for a better understanding of the invention, reference is made to the following written description taken in conjunction with the accompanying drawing.

BRIEF DESCRIPTION OF THE DRAWING

FIG. 1 is a perspective view of a display device according to our invention installed in a window;

FIG. 2 is a cross-sectional view of one of the spools of the display device;

FIG. 3 is a cross-sectional view of the end of one of the spools illustrating a means for holding the sign in place.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring now to FIG. 1 of the drawing, a display device **5** is shown mounted in a window opening. The window is comprised of a pane **6** and mullions **7** and **8** between which pane **6** is secured.

Display device **5** is comprised of an upper housing **9** and a lower housing **10** which are substantially exactly alike. Housing **9** has a longitudinal slot **11** therein through which sign **12** extends and housing **10** also has a longitudinal slot **13** through which sign **12** extends.

Slots **11** and **13** extend throughout the length of the housings **9** and **10** and also into the ends **14**, **15** and **16** of the housings. This is most clearly illustrated in FIG. 3.

Housing **9** is attached by suitable means to support member **17** which extends between the mullions **7** and **8**. Member **17** is provided with a smaller end section **18** which is slidably received in member **17** and is urged outwardly therefrom by spring **19**. Spring **19** engages a stop member **20** within the inside of member **17** at one end thereof and engages resilient end cap **21** at the opposite end.

Resilient caps **21**, **22**, **23** and **24** are provided to prevent damage to the support members **7** and **8** and to also provide a frictional engagement therewith.

Within housing **9** is a shaft **25** upon which a plurality of messages may be wound. The shaft extends beyond the end members **14** and **16** and is provided with knurled knobs **26** and **27** at each end for turning the shaft in either direction. End members **14** and **16** are provided with an opening **28** which is in communication with slot **11** to permit removal of the shaft when desired.

To prevent the shaft **25** from moving out of opening **28** and to provide tension on sign **12** so that it gives an attractive appearance at all times, a powl **30** is held in position at each end of the shaft by means of spring **31**. Stop member **32**, attached to end **16**, is provided for holding spring **31** and pawl **30** in place.

Housing **10** is provided with a support member **33** having a smaller telescoping member **34** and with resilient end caps **23** and **24**. Knurled knob **35** is provided on the end of the message carrying shaft which fits into opening **29** in end **15** and is in communication with slot **13**.

Housing **10** is provided with spring held pawls on the inside of each end thereof in the same manner as housing **9**.

Operation of our display device is as follows: With the messages placed in a roll on shaft **25**, member **17** is installed between mullions **7** and **8** by pushing member **18** inwardly against the spring **19** and releasing it so that resilient end caps **21** and **22** contact the mullions.

Housing **10** is installed in the same manner at a location below the housing **9**.

The shaft may be removed from housing **10** by lifting knurled knob **35** and the knurled knob on the other end of the shaft upwardly so that the shaft moves from opening

29 and out through the slot 13. The bottom of sign 12 may then be attached to the shaft.

When the shaft to which the sign 12 is attached is replaced through slot 13 into opening 29 in end member 15 the pawls 30 on each of the end members will seat itself on top of the shaft and springs 31 will prevent rotation of the shaft. As shaft 25 in housing 9 is also held in position by spring-loaded pawls 30, by twisting the knurled knobs on each end of the shaft the sign may be stretched taut so that it will have an attractive appearance.

When it is desirable to change the particular message which is exposed, the knurled knob 35 may be turned to wind the sign 12 around the shaft and unwind it from shaft 25. Due to the way the shafts are held within the housings either one may be turned in either direction to expose the particular area on sign 12 the user may want.

In locations where the inside of the building is exposed to excess light from the outside the sign 12 may be replaced by a material which blocks out the light and still presents an attractive appearance.

When it is desired that the sign be moved to a new location the end members 18 and 34 may be pushed inwardly against the springs and support rods 17 and 33 may be lifted out. The installation at the new location would be the same as described above.

The foregoing disclosure and description of the invention is illustrative and explanatory thereof and various changes in the size, shape and material, as well as in the details of the illustrated construction may be made, within the scope of the appended claims, without departing from the spirit of the invention.

We claim:

1. A display device comprising
(a) a first spool member,
(b) a second spool member spaced from the first spool member,
(c) each of said spool members being adapted to have secured thereto one end of a flexible display web,

(d) each of said spool members having means on the end thereof for turning the spool members,
(e) each of said spool members having a housing member thereon,
(f) means secured to such housing member for individually removably mounting each housing between two upright supports.

2. A display device according to claim 1 with
(f) means within each of said housing members for holding the spool members from rotation.

3. A display device according to claim 2 with
(g) means in each of said housing members for permitting travel of a sign between the two spool members.

4. A display device according to claim 3 with
(h) said means for mounting the housing members being adjustable to fit in different size window openings.

5. A display device according to claim 4 with
(i) said means for mounting the housing members extending in substantially the same longitudinal directions as the housing members.

References Cited

UNITED STATES PATENTS

340,968	4/1886	Levering	248—480
2,787,070	4/1957	Idoine	40—86
3,220,464	11/1965	Wise	160—24

FOREIGN PATENTS

22,654	11/1914	Great Britain.
1,454,758	10/1966	France.

EUGENE R. CAPOZIO III, Primary Examiner
L. R. OREMLAND, Assistant Examiner

U.S. Cl. X.R.

40—117