March 30, 1965 R. E. PETRICK 3,175,796

UNIVERSAL WALL MOUNT FOR MOVIE SCREENS

Filed April 24, 1963 2 Sheets-Sheet 1

Fig. 1.

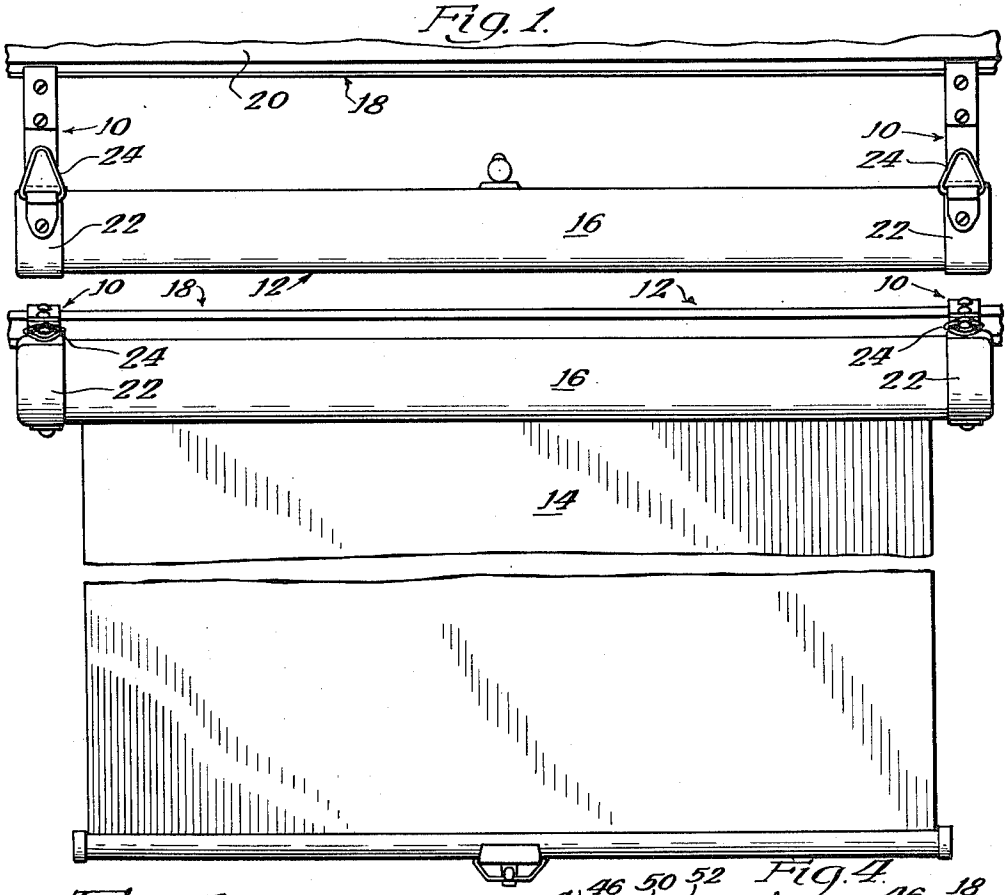


Fig. 2

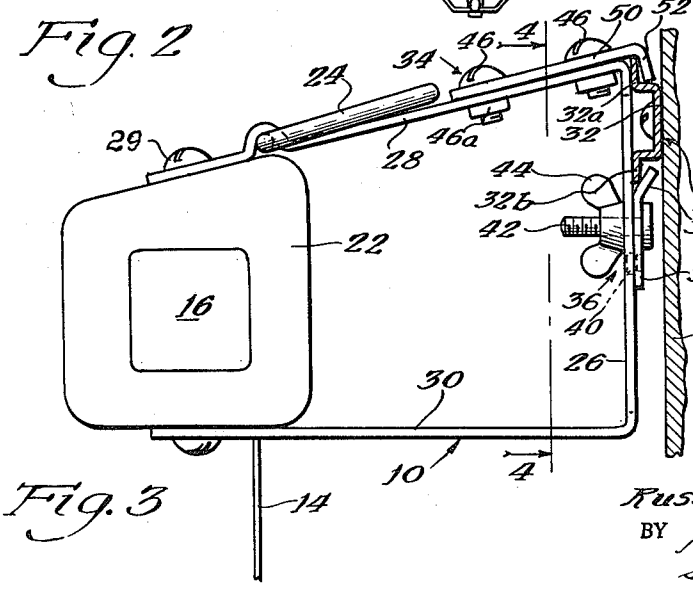
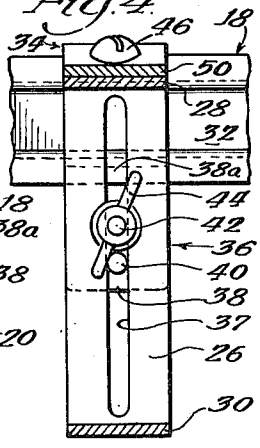


Fig. 3

Fig. 4.



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Fig. 5

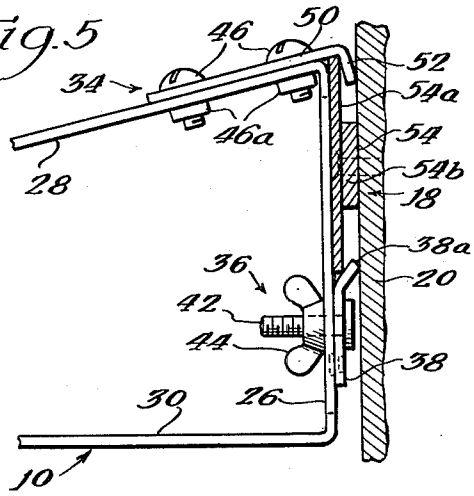


Fig. 6

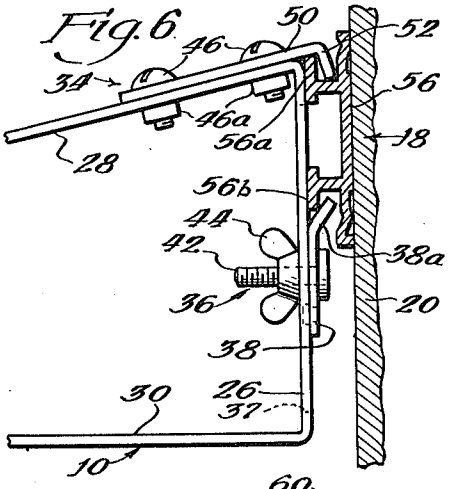


Fig. 7

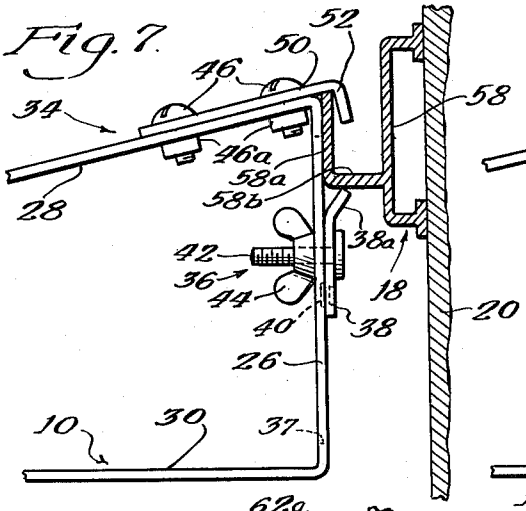


Fig. 9

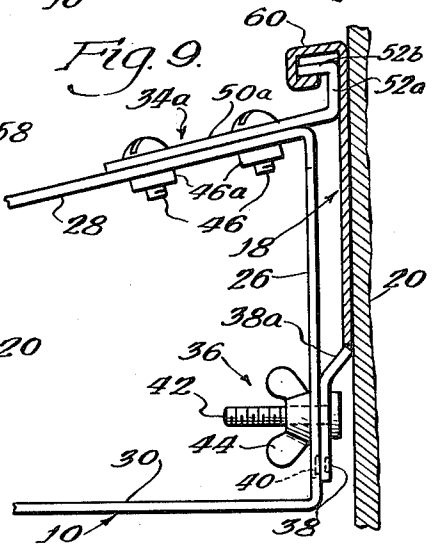


Fig. 8

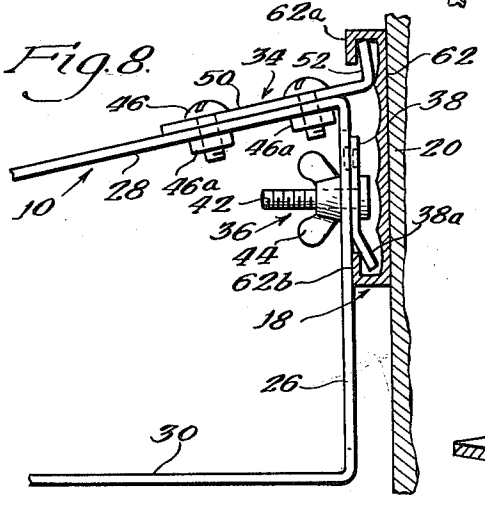
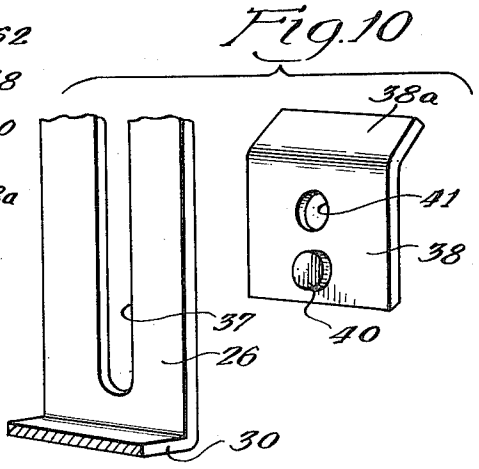


Fig. 10



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UNIVERSAL WALL MOUNT FOR MOVIE SCREENS

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Filed Apr. 24, 1963, Ser. No. 275,389
14 Claims. (Cl. 248—223)

This invention relates to movie screens and more particularly to a universal mounting means therefor.

Movie screens are often suspended from a wall mounting especially in classrooms for educational use. Heretofore such mountings have been inadequate in that they failed to hold the screen spaced outwardly from the wall a sufficient distance so that the reflector portion of the screen could drape evenly downward without interference from the contour of blackboard moldings or the like. Also, former mounting means were incapable of use with all known types of map moldings, blackboard moldings or other moldings usually found on classroom walls.

It is therefore a primary object of this invention to provide a new and improved mounting means for movie screens.

It is another object of this invention to provide a new and improved mounting means for movie screens adapted to hold the same in spaced relation to the wall to which the mounting means is secured.

It is still another object of this invention to provide a new and improved mounting means for movie screens which is adapted for use with most known moldings used in classrooms.

The invention is illustrated in a preferred embodiment in the accompanying drawings, in which:

FIGURE 1 is a fragmentary top plan view of a movie screen secured to a wall molding by means of the mounting means of this invention;

FIGURE 2 is a fragmentary partially broken front elevational view of the screen shown in FIGURE 1;

FIGURE 3 is an enlarged fragmentary view partially in section showing the mounting means of this invention secured to a wall molding and retaining a movie screen therein;

FIGURE 4 is a fragmentary section view of the mounting means of FIGURE 3 taken along the line 4—4 thereof;

FIGURES 5–8 are fragmentary section views of different types of wall moldings illustrating the means of attaching the mounting means of this invention to the illustrated different types of wall moldings;

FIGURE 9 is a fragmentary section view of another type of wall molding illustrating the attachment of a modified embodiment of the mounting means of this invention; and

FIGURE 10 is a fragmentary enlarged exploded view of a component element of the amount of this invention.

In FIGURES 1 and 2, the mounting means or mount **10** of this invention is shown in use with a movie screen **12** having a reflector portion **14** and casing **16**. The mount secures the screen casing **16** to the molding **18** of a wall **20** by holding the casing at the end caps **22** thereof outside of the path of travel of the reflector screen **14** so as not to interfere with the free movement thereof. The end caps **22** are provided with pivotally mounted bails **24** which may be secured to cooperating hooks when the screen is supported by a stand or the like.

The mount **10** includes a generally U-shaped, one piece bracket **25** having a back **26** and two outwardly extending arms **28** and **30**. At their extremities, each of the arms **28** and **30** have screws **29** and holes therefor (not shown) for attaching one end of the screen casing thereto by threading the screws in mating taps in the screen casing

(not shown). In the preferred embodiment of this invention, the upper arm **28** is slightly angled downward relative to the bottom arm **30** to adapt the same for use with a screen **12** having a casing **16** of a cross section as shown in FIGURE 3. In FIGURE 3, the mount **10** is shown secured to the support plate of a generally gull-winged strip molding **32**, having two flanges **32***a* and **32***b* spaced outwardly from and uprightly adjacent to the molding, by means of the cooperation of the adjustable holder means **34** and adjustable retainer means **36**.

The retainer means **36** is a plate-like structure having a generally rectangular body portion **38** with one end **38***a* bent outwardly therefrom. A post **40** extends outwardly from the body portion on the side opposite the bent end for guiding the retainer **36** in a longitudinal slot **37** in the back member **26**. A screw hole **41** is also formed in the body in vertical alignment with the post **40** for reception of a threaded fastener **42** which has a wing nut **44** on the shank portion opposite the body to lock the retainer at selected positions along the longitudinal extent of the slot **37**.

The holder means **34** is secured to the upper arm **28** by conventional fastening means **46** illustrated herein as screws which pass through aligned openings therefor in the holder and the upper arm (not shown) and are held by cooperating nuts **46***a*. The holder is essentially a bent or L-shaped bar having a generally flat body portion **50** and a lip **52** extending generally normal thereto to one end thereof. As shown in FIGURES 3–8, the holder may be positioned on the upper arm member so that the lip points upwardly from the arm member or downwardly in opposition to the movable retainer **36**.

A second or modified holder means **34***a* is provided for use with moldings for which the holder **34** may not be adapted, as shown in FIGURE 9. The holder **34***a* is secured to the upper arm member in a manner similar to that described for the holder **34**. Similarly, the holder **34***a* consists essentially of a bent bar having a flat body portion **50***a* with a lip portion **52***a* extending generally normal thereto. However, the holder **34***a* is further provided with a hook portion **52***b* on the terminal end of the lip which extends inwardly in overlapping relation to the body portion **50***a* and generally parallel thereto.

To secure the mount to the support plate of the type of strip molding shown in FIGURE 3, the holder means **34** is positioned with its lip **52** extending downwardly so as to clamp the flange **32***b*. The retainer **36** is then moved upward in the slot **37** to a point where the bent end **38***a* grasps the flange **32***a* and the movable retainer is locked thereat by means of the wing nut **44**.

The same procedure can be used to attach the mount to a molding **54** of the face plate type, as shown in FIGURE 5, wherein the cross piece **54***a* forms parts analogous to the flanges of the gull wing molding **32** and the base **54***b* maintains the cross piece in spaced relation to the wall so that the appropriate lip and bent end portions of the holder and retainer, respectively, may extend therebetween in locking relation thereto.

In FIGURE 6, the aforementioned means of securing the mounting is illustrated with a modified gull-winged molding **56** having flanges **56***a* and **56***b*.

Similarly, in FIGURE 7, the upturned hook molding **58** may be engaged by clamping the downwardly extending lip of the holder to the upright flange **58***a* and positioning the movable retainer member so that the bent end thereof abuts the bottom of cross piece **58***b*.

FIGURE 8 illustrates the manner of attaching the mount of this invention to the support plate of a channel-shaped molding having inwardly extending opposed flanges **62***a* and **62***b*. In this situation, the holder **34** is positioned so that the lip thereof extends upwardly and

is grasped by the inwardly extending flange 62*a*. The movable retainer 36 is positioned so that the bent end thereof extends downwardly and outwardly. The retainer 36 is moved downwardly in the slot 37 to a point where it reaches its maximum extent of travel due to the limitation of the wall molding 62, and being grasped by the flange 62*b*, exerts a force in opposition to the holder to secure the mount to the wall.

FIGURE 9 illustrates the use of the alternate holder 34*a* to attach the mount to the support plate of an inturned hook-shaped molding. The holder 34*a* is positioned so that the lip and hook thereof are above the arm 28*a* and locked in the interior of the hooked portion of the molding. The movable retainer is positioned in abutting relation to the bottom of the molding to limit the vertical movement of the mount.

All the strip moldings discussed posses the common feature of at least one flange surface spaced from and uprightly adjacent to a wall, thereby affording a surface to which the lip on the holding means may be clamped. Similarly, the moldings have either a second such flange surface facing opposite from the first flange to which the retainer may be clamped, or a surface extending transversely to the wall and back member of the bracket against which the retainer may be locked in abutting relation to prevent vertical movement of the mount.

The universal screen mount of this invention thus may be adapted for use with any known conventional blackboard or similar type wall molding found in most schoolrooms today. The mount may be simply detachably secured to these moldings and need not be a permanent attachment. The movie screen is held in the mount by simple threaded fasteners which are positioned in aligned openings in the mount arms and screen casing. No other special fastening means is required either on the screen or on the mount. When a screen is thus held in the mount, it is spaced away from the wall a sufficient distance to permit the reflector portion thereof to drape evenly and not be affected by the contour of moldings, map brackets, or similar fixtures which may also be secured to the wall. Furthermore, this mount means is made of simple bar stock and the screw holes, slots, and component holders and retainers thereof are easily and economically formed thus enhancing the economy of production thereof.

The foregoing detailed description is given for clearness of understanding only, and no unnecessary limitations should be understood therefrom for some modifications will be obvious to those skilled in the art.

I claim:

1. A mount for securing a wall screen casing to a supporting plate projecting from strip molding on a wall, comprising: a U-shaped bracket having a base portion and a pair of supporting arms, the base portion being adapted to be positioned uprightly adjacent the strip molding, and the supporting arms being secured to opposite ends of the base portion and extending outwardly therefrom so as to support one end of a wall screen casing between the free ends of said supporting arms; holder means connected to the bracket for engaging a support plate of the molding; and retainer means connected to the bracket in spaced relationship to said holder means, said connection of said retainer means to said bracket being adjustable with respect to the holder means and said connection of said holder means to said bracket being invertible relative to said bracket and said retainer means to engage portions of different types of strip molding and maintain the bracket in secure engagement with said support plate.

2. The mount of claim 1 wherein said retainer means is invertible relative to said holder means and said bracket.

3. The mount of claim 2 wherein said holder means is

provided with a lip portion extending generally longitudinally relative to the base portion.

4. A mount for securing a wall screen casing to a supporting plate projecting from strip molding on a wall, comprising: a U-shaped bracket having a base portion and a pair of supporting arms, the base portion being adapted to be positioned uprightly adjacent the strip molding, and the supporting arms being secured to opposite ends of the base portion and extending outwardly therefrom so as to support one end of a wall screen casing between the free ends of said supporting arms; holder means connected to the bracket for engaging a support plate of the molding; and retainer means connected to the bracket in spaced relationship to said holder means, said retainer means having a free end spaced longitudinally of and slightly outwardly from the connection of the retainer means to said bracket being adjustable with respect to the holder means to permit said free end to engage a portion of strip molding in opposition to the holder means and maintain the bracket in secure engagement with said support plate.

5. The mount of claim 4 wherein one of said holder and retainer means is invertible relative to the other to adapt the mount for securement to different types of strip molding.

6. The mount of claim 4 wherein said holder means is invertible relative to the retainer means and the bracket to adapt the mount for securement to different types of strip molding.

7. The mount of claim 4 wherein said retainer means is invertible relative to the holder means and the bracket so that said free end may be positioned downwardly and only slightly outwardly from said base portion to adapt the mount for securement to different types of strip molding.

8. The mount of claim 4 wherein both said holder means and said retainer means are invertible relative to the base portion and each other so that said retainer means free end may be positioned downwardly and only slightly outwardly from the connection of said retainer means to said bracket to adapt the mount for securement to different types of wall moldings.

9. A universal mount for a wall screen casing adapted for detachable securement to each of the support plates of strip moldings of the gull-winged, restricted channel, upturned hook, and face plate type, comprising: a U-shaped bracket having a base portion and a pair of supporting arms, the base portion being adapted to be positioned uprightly adjacent the strip molding, and the supporting arms being secured to opposite ends of the base portion and extending outwardly therefrom so as to support one end of a wall screen casing between the free ends of said supporting arms; holder means connected to one of said arms including a lip portion for fitting over the flange of said supporting plates in clamping engagement therewith; and blade-like retainer means movably connected to said base portion and adapted to be locked at preselected positions therealong, said retainer means having a free end diverging slightly outwardly and extending generally longitudinally relative to the base portion, said connection of said retainer means to said bracket being adjustable relative to said holder means to permit said free end to engage a portion of a support plate spaced from the flange portion thereof to prevent relative vertical movement of said holder means with respect to said strip molding to secure said said mount thereto.

10. The mount of claim 9 wherein one of said holder and retainer means is invertible relative to the other to adapt the mount for securement to different types of strip molding.

11. The mount of claim 9 wherein said holder means is invertible relative to the retainer means and the bracket to adapt the mount for securement to different types of strip molding.

12. The mount of claim 9 wherein said retainer means

is invertible relative to the holder means and the bracket so that said free end may be positioned downwardly and only slightly outwardly from said base portion to adapt the mount for securement to different types of strip molding.

13. The mount of claim 9 wherein both said holder means and said retainer means are invertible relative to the base portion and each other so that said retainer means free end may be positioned downwardly and only slightly outwardly from the connection of said retainer means to said bracket to adapt the mount for securement to different types of wall moldings.

14. A mount for securing a wall screen casing to strip molding of the inturned hook type, comprising: a U-shaped bracket having a base portion and a pair of supporting arms, the base portion being adapted to be positioned uprightly adjacent the strip molding, and the supporting arms being secured to opposite ends of the base portion and extending outwardly therefrom so as to support one end of a wall screen casing between the free ends of said supporting arms; holder means on one of said arms including cooperating lip and hook portions, said lip extending generally longitudinally of said base portion and said hook portion extending inwardly of said base portion and overlying a portion of said arm, said portions being engageable with the inturned hook portion of the support plate; and blade-like retainer means movably connected to said base portion and adapted to be locked at preselected positions therealong, said retainer means having a free end portion projecting slightly outwardly from and extending generally longitudinally of said base portion, said connection of said retainer means to said base portion being adjustable relative to said holder means to clamp portions of said support plates spaced from the hook thereof to prevent relative vertical movement of said holder means with respect to said strip molding to secure said mount thereto.

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