Oct. 17, 1967 F. J. MURPHY 3,346,899

EDGE TRIMMING DEVICE FOR PAINT ROLLER

Filed March 4, 1965 2 Sheets-Sheet 1

FIG. 1

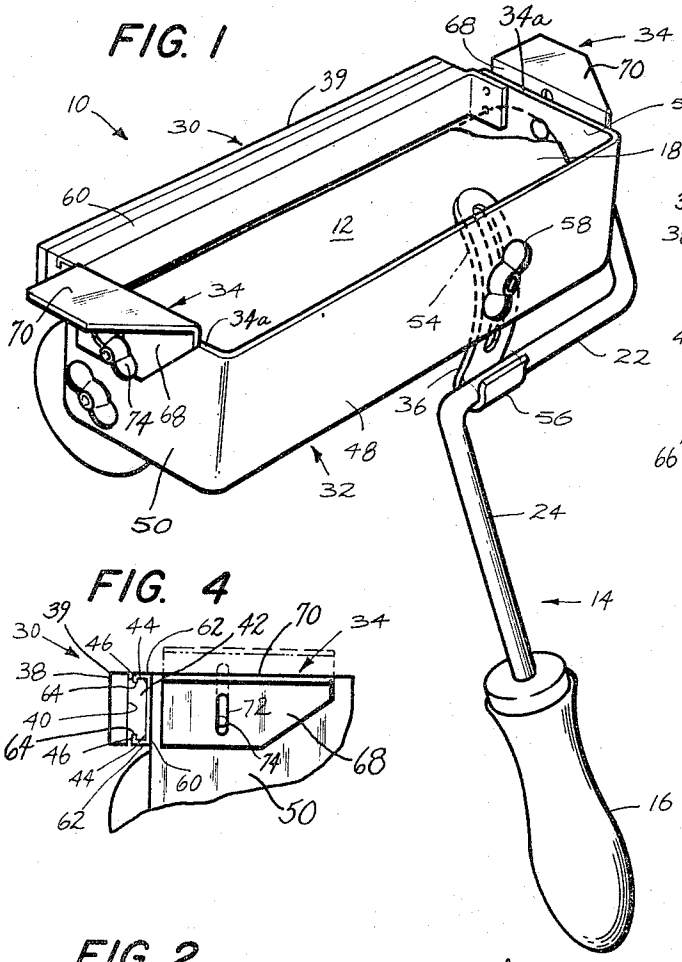


FIG. 3

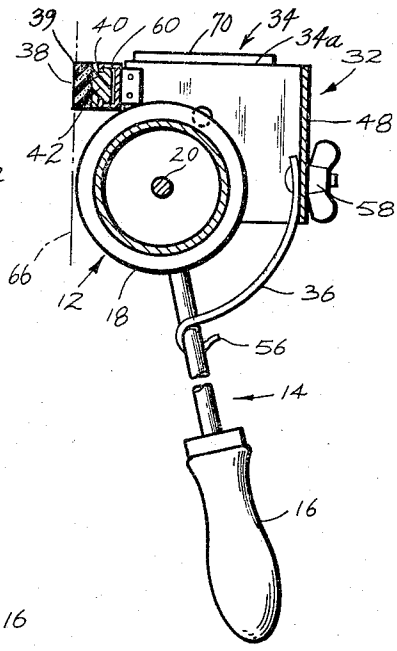
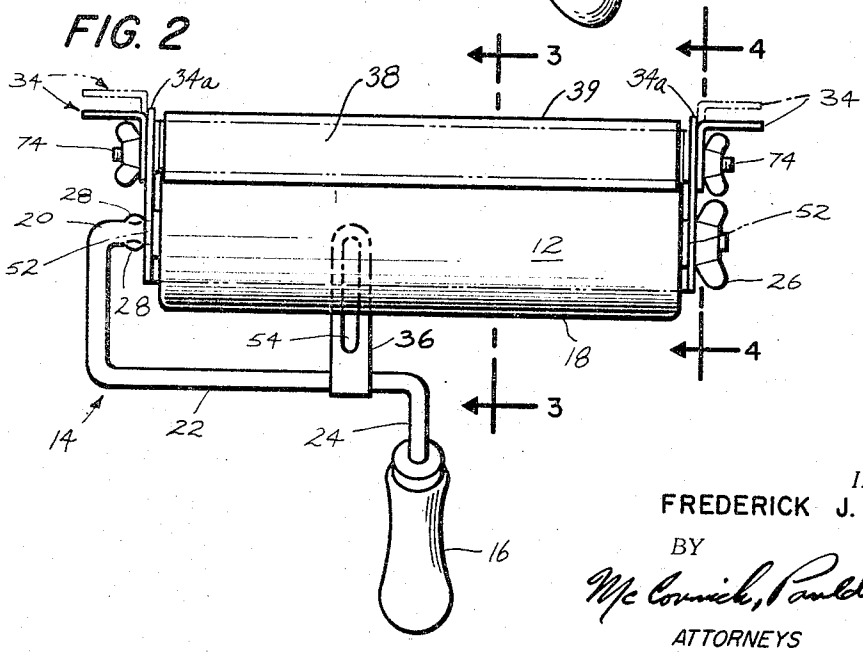


FIG. 4

FIG. 2



INVENTOR.
FREDERICK J. MURPHY
BY
McCormick, Paulding & Huber
ATTORNEYS

Oct. 17, 1967 F. J. MURPHY 3,346,899

EDGE TRIMMING DEVICE FOR PAINT ROLLER

Filed March 4, 1965 2 Sheets-Sheet 2

FIG. 5

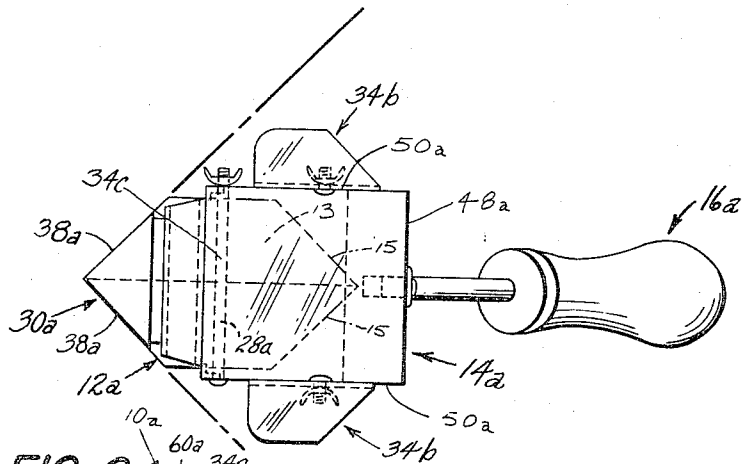
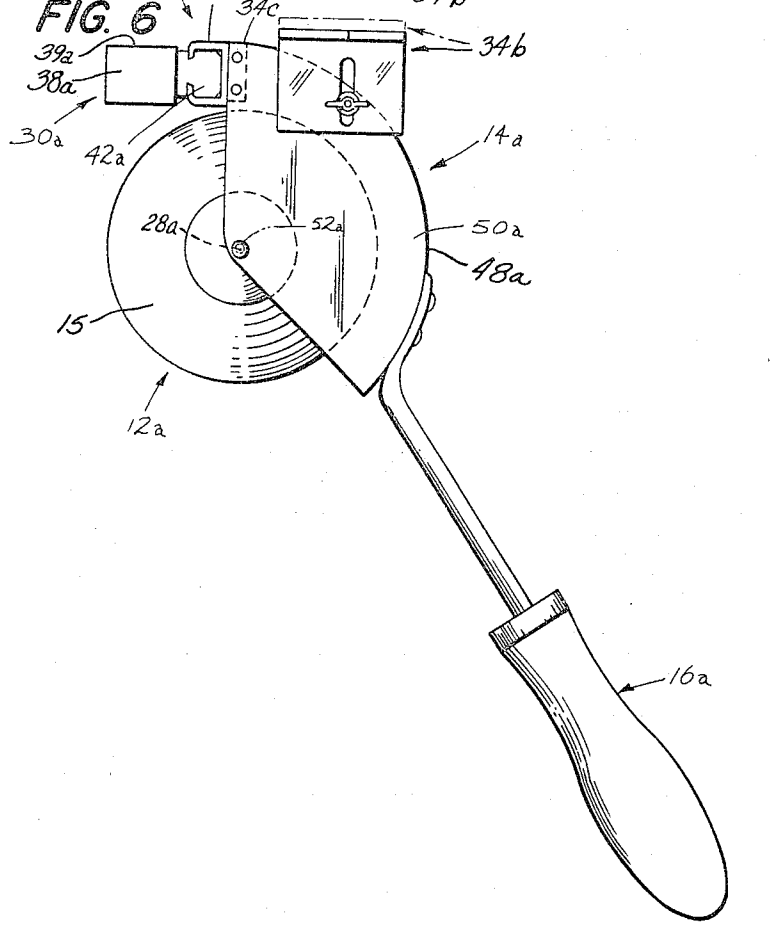


FIG. 6



United States Patent Office 3,346,899
Patented Oct. 17, 1967

3,346,899

EDGE TRIMMING DEVICE FOR PAINT ROLLER

Frederick J. Murphy, 50 Jay St.,
Wethersfield, Conn. 06109

Filed Mar. 4, 1965, Ser. No. 437,225
6 Claims. (Cl. 15—118)

ABSTRACT OF THE DISCLOSURE

A painting and trimming roller type applicator having a resilient sponge-like trimming applicator opposite a handle and which has an outwardly exposed trimming edge and an associated outwardly exposed stop engageable with a ceiling or other intersecting wall.

Background of invention

This invention relates to roller devices for applying paint and other liquid surface coating compounds and to improvements in attachments therefor.

Summary of invention

A paint roller can be used to paint close to an inside corner formed by two intersecting surfaces, such as a wall and a ceiling, but it cannot be conveniently employed to accurately trim or edge a surface at such an inside corner intersection. A brush is customarily used to paint a corner surface; however, where a corner is formed by a wall and ceiling which are to be of different colors, brush trimming the edges adjacent the intersecting surfaces is a difficult and time consuming operation.

The principal object of the invention is to provide a roller applicator device adapted to rapidly, neatly and accurately paint an inside corner surface and the edge of a surface adjacent an intersecting surface.

A further object of the invention is to provide a roller applicator device adapted for trim painting a surface border which is spaced from an intersecting surface such as a wall border surface adjacent a corner molding strip or the like.

A still further object of the invention is to provide a roller applicator painting device having a spray guard thereon to control the paint spray or splatter from the roller applicator.

Another object of the invention is to provide a universal paint roller applicator attachment incorporating the features set forth in the aforestated objectives.

The drawings show preferred embodiments of the invention and such embodiments will be described, but it will be understood that various changes may be made from the constructions disclosed, and that the drawings and description are not to be construed as defining or limiting the scope of the invention.

Brief description of the drawing

FIG. 1 is a perspective view of a paint roller device embodying the present invention.

FIG. 2 is a front elevation of the device of FIG. 1.

FIG. 3 is a sectional view taken along the line 3—3 of FIG. 2.

FIG. 4 is a fragmentary sectional view taken along the line 4—4 of FIG. 2.

FIG. 5 is a plan view of a roller applicator device showing another embodiment of the invention.

FIG. 6 is a side elevational view of the device of FIG. 5.

Description of preferred embodiments

Referring particularly to FIG. 1, numeral **10** denotes a roller applicator device embodying the present invention. For purposes of present illustration, the device is shown as an attachment for a typical paint roller. However, it should be apparent from the description which follows that the device of the present invention may be incorporated in the construction of a paint roller as an integral part thereof, and such construction is considered to be within the scope of the invention.

Typically, a paint roller employed in practicing the invention comprises an applicator roller **12**, a supporting means or frame **14** supporting the roller **12** for rotation about an axis, and a handle means **16** connected to the frame **14**. The roller **12** has a surface of revolution **18**, which is preferably generally cylindrical. The surface **18** is adapted to pick up and spread liquid coating compounds. The frame means **14** preferably includes a first portion or axle **20** extending from one end of the roller **12** which is journaled thereon, a second portion **22** paralleling the axle and a third portion **24** perpendicularly extending from the second portion. Connected to the third portion **24** is the handle **16**, adapted to be manually grasped for moving the device relative to a surface to be coated.

The first, second and third portions **20**, **22** and **24** and the handle **16** are conventionally coplanar to facilitate effective control in guiding the device over a surface. In the illustrated embodiment of the invention, the roller **12** is retained in position on the axle **20** by a wing nut **26**, threadably engaging the free end of the axle, and by a pair of diametrically opposed lugs **28**, **28** struck out on the axle, as shown in FIG. 2.

The aforedescribed roller device typifies a paint roller to which the device of the present invention may be attached. However, it should be understood that paint rollers which deviate from this construction may also be employed in practicing the invention. In this regard, particular reference is made to applicator roller constructions in which the axle **20** terminates within the roller and does not extend therethrough.

The attachment embodying the present invention preferably comprises an applicator pad **30**, a pair of limit stops **34**, **34**, a securing means or bracket **32**, and an adjustment means or clip **36**.

Sponge rubber is preferably employed as a fabricating material for the applicator pad **30**, because it has been found to provide a very satisfactory surface for picking up and spreading liquid compounds such as paint. The pad **30** is elongated and generally rectangular having a substantially uniform rectangular cross section throughout its entire length. The pad preferably includes a longitudinally disposed applicator surface **38** having a rectilinear edge portion **39** and also includes a contact surface **40** in spaced parallel relation thereto, each of the aforedescribed surfaces having a longitudinal dimension approximately equal to the axial dimension of the roller **12**. Also included on the pad **30** is a rigid backing strip **42**, which may be formed from wood, plastic, metal or other suitable material. The backing strip holds the pad in place on the bracket **32** in a manner to be hereinafter described. A suitable bonding compound is employed to secure the backing strip **42** to the contact surface **40** with which it is aligned. Included on the backing strip is a pair of spaced apart longitudinally extending side surfaces **44**, **44** which are normal to the contact surface **40**. For a purpose to be hereinafter apparent, the side surfaces **44**, **44** define a pair of parallelly aligned longitudinally extending recesses **46**, **46** which are best shown in FIG. 4.

Means for securing the pad **30** in position relative to the roller **12** is provided by the bracket **32**, which in its presently preferred form is generally U-shaped. The bracket includes an elongated intermediate surface portion **48** having a relatively large surface area adapted to be

positioned generally between the roller **12** and the handle **16**. When so positioned, the portion **48** serves as a spray guard for controlling the paint spray or splatter from the roller. The longitudinally extending intermediate portion **48** is axially aligned with the roller **12** when the attachment is in its normal use position.

The bracket **32** further includes a pair of spaced apart end portions **50, 50** radially extending from the intermediate surface **48**. A pair of longitudinally aligned apertures **52, 52** adapted for journalling the axle **20** are defined by the end portions **50, 50**. Thus, the bracket **32** is adapted to receive the roller **12** generally interjacent the end portions **50, 50** with the axle **20** extending therethrough. The bracket **48** is thus arranged to pivot on the axle **20**.

A generally C-shaped channel **60** opening outwardly or away from the axle **20** is positioned above the roller **12** in axial alignment therewith and extends longitudinally between the end portions **50, 50** being secured therebetween by an appropriate fastening operation such as spot welding. The channel **60** includes a pair of spaced apart longitudinally disposed outwardly extending side portions **62, 62** having opposed inwardly turned longitudinally extending end portions **64, 64**. The channel is adapted to receive the backing strip **42** in longitudinally sliding engagement therein with the end portions **64, 64** engaging the recesses **46, 46**. Thus, the bracket **32** and the channel **60**, which forms a part thereof, cooperate to hold the applicator pad **30** in a fixed position relative to the roller **12** with the outer or rectilinear edge portion **39** in parallel alignment therewith and the applicator surface **38** in a plane **66** generally tangential thereto, as best shown in FIG. 3 where the tangential plane **66** generally corresponds to the plane of a wall surface.

At least one limit stop **34** is preferably provided to adapt the device for trimming an edge surface adjacent a molding strip or the like. In the presently preferred embodiment of the invention, two longitudinally spaced limit stops **34, 34** are provided above the roller **12** in radially spaced relation thereto. Each of the stops **34, 34** is an inverted generally L-shaped angle section which includes a radially disposed side portion **68**, and an axially disposed upper surface **70**.

A radially extending slot **72** defined in each of side portion **68** cooperates with a threaded fastener **74** to secure an associated stop **34** to the bracket **32** and to provide means for selectively positioning the stop relative to the roller **12**.

Adjustment means for selectively positioning the bracket **48** relative to the frame **14** is provided by the elongated clip **36**, which includes an elongated adjustment slot **54** defined therein and a spring clip **56** formed on one end portion thereof. The clip **56** is adjustably secured to the bracket **32** by a threaded fastener **58** which extends through the slot **54** and engages the intermediate portion **48**. An adjustable connection between the frame **14** and the bracket **32** is completed by the spring clip portion **56** which is adapted to engage and releasably retain the second portion **22**. Tightening the fastener **58** retains the bracket in a fixed position relative to the frame. This adjustment feature enables the user to secure the handle means in a comfortable working position relative to both of the applicators.

Both the roller **12** and the pad **30** may be used to pick up paint and spread it on a surface to be coated. However, in painting with the device it has also been found that highly satisfactory results may be obtained by picking up paint with the roller applicator only and thereafter redistributing it with the applicator pad, which is employed to finish the marginal portion of the surface to be painted.

The aforedescribed device embodying the invention includes a pad having a rectilinear outer edge portion **39** and is, therefore, particularly adapted for trimming rectilinear edges. However, it should be apparent that the device may also be adapted for painting a curvilinear edge by providing an applicator pad having an outer edge portion **39** which complements the curvature of the edge to be painted. Such applications of the device are contemplated within the scope of the invention.

The adjustable stops **34, 34** are employed to limit the travel of the applicator device along one surface relative to an intersecting surface. It should be evident that by adjusting the limit stops radially outwardly from the roller, it is possible to limit the maximum upward travel of the applicator on a wall relative to a ceiling. This feature is particularly useful in painting the edge of a wall adjacent the lower edge of a molding strip which lies on the wall adjacent a ceiling.

It should also be noted that the invention may be practiced with limit stop means integral with the securing means or bracket **32**. For example, in the embodiment shown in FIG. 1 a pair of upper edges **34*a***, **34*a*** on the end portions **50, 50** may serve as limit stops in the absence of the adjustable stops **34, 34**. Thus when the device is used to paint a wall, the edges **34*a***, **34*a*** are positioned so as to contact the ceiling when the edge portion **39** of the pad **30** reaches the line of intersection between the wall and the ceiling. This arrangement facilitates the rapid, neat, and accurate trimming of wall marginal edges.

Referring now to FIGS. 5 and 6 wherein another embodiment of the invention is shown, an applicator device for painting and edge trimming corners is indicated generally by the numeral **10*a***. In this embodiment the device of the present invention is incorporated in the construction of a roller applicator. The device shown comprises a roller applicator **12*a***, an applicator pad **30*a***, a supporting means or frame **14*a*** supporting the roller **12*a*** for rotation about an axis, and a handle means **16*a*** connected to the frame. The roller of this embodiment preferably takes the form of a pair of generally frusto-conical sections joined at their respective bases to define a surface of revolution **13** including surface portions **15, 15** adapted to pick up and spread paint or other surface coating material on an inside corner surface such as the surface formed by the intersection of two walls. The roller **12*a*** preferably has a resilient surface which effectively compensates for any slight irregularities in the surface to be coated; thereby assuring the uniform application of coating material.

It should be noted that the frame **14*a*** and the handle means **16*a*** form an integral part of the roller applicator structure.

A longitudinally extending intermediate portion **48*a*** is included in the frame **14*a*** and serves as a splash or splatter guard in the manner aforedescribed. The frame **14*a*** also has a pair of longitudinally spaced end portions **50*a*, 50*a*** radially extending from the intermediate surface **48*a***. A pair of longitudinally aligned apertures **52*a*, 52*a*** adapted for journalling an axle **28*a*** are defined by the end portions **50*a*, 50*a***. Thus, the frame **14*a*** is adapted to receive the roller **12*a*** generally interjacent the end portions **50*a*, 50*a***, with the axle **28*a*** extending therethrough.

For purposes of present illustration, the handle means **16*a*** is shown as being secured in a fixed position relative to the frame **14*a***; however, the handle means may also be arranged for adjustable positioning relative to the frame and such modification is intended to be within the scope of the invention.

The pad **30*a*** includes an applicator surface having two approximately right angularly arranged parts **38*a*, 38*a*** adapted to complement the surface of an inside corner. Each surface part **38*a*** preferably includes a rectilinear outer edge portion **39*a*** adapted for trimming an associated marginal portion of the corner surface to be coated. The pad **30*a*** is in all other respects generally similar to the aforedescribed pad **30**.

A generally C-shaped outwardly opening channel **60*a*** positioned above the roller **12*a*** extends longitudinally between the end portions **50*a*, 50*a*** and is secured there-

between by an appropriate fastening operation such as spot welding. In like manner with the aforedescribed channel **60**, the channel **60***a* is adapted to receive and hold the pad **30***a* with the rectilinear edges **39***a*, **39***a* in general parallel alignment with the axle **28***a* and with each surface part **38***a* in a plane generellay tangent an associated roller surface portion **15**.

This modified form of the device also includes at least one limit stop indicated generally by the numeral **34***b* and preferably includes two limit stops **34***b*, **34***b* which are generally similar to the corresponding limit stops **34**, **34** of the aforedescribed attachment, both in structural arrangement and function. It should also be understood that a limit stop means may be integral with the supporting means or frame **14***a*. As shown, the upper portion **34***c* of the frame **14***a* may serve this function, in the absence of the adjustable stops **34***b*, **34***b*.

The roller applicator **12***a* in this embodiment is adapted to paint the surface of inside corners such as formed by two intersecting walls, whereas the applicator pad **30***a* is adapted to trim or edge the corner surface, along an edge formed by a third intersecting surface, such as a ceiling.

I claim:

1. A roller type applying and trimming device for paint and other liquid surface coating compounds comprising an applicator roller having a surface of revolution and rotatable about an axis to pick up and spread liquid coating compounds, means supporting said roller for rotation about said axis, elongated handle means adapted to be manually grasped for moving the device relative to a surface to be coated, said handle means being connected with said supporting means and extending generally radially from one side of said roller, a resilient sponge applicator and trimming pad having a generally flat surface adapted to pick up and spread liquid compounds, means securing said pad adjacent said roller and on a side thereof opposite said handle means with its said surface in a plane tangent to the roller for enabling said roller and pad surface to engage a first wall surface to be coated, said pad having one generally rectilinear edge disposed at an outer margin of said pad surface and which is exposed outwardly to closely approach a second wall surface which intersects with said first wall surface engaged in common by said roller and pad surface, and adjustable stop means adjacent said pad and having a stop surface exposed outwardly and extending beyond said pad edge to engage said intersecting second wall surface and thereby positively to prevent the application of said coating compound to the second wall surface.

2. The combination defined in claim **1** further characterized by adjustment means for selectively positioning said pad relative to said handle means.

3. The combination defined in claim **1** further characterized by said supporting means include a surface portion having a longitudinal dimension approximately equal to the axial dimension of said roller, said surface portion being in general parallel alignment with said axis and radially spaced from said roller to provide splatter protection.

4. The combination defined in claim **1** further characterized by means for adjustably positioning said stop means relative to said pad edge.

5. The combination defined in claim **1** wherein said roller and said pad surface have corresponding angularly related intersecting first and second portions adapted respectively to apply coating compound simultaneously to said first wall surface and a third angularly arranged and intersecting wall surface.

6. In an attachment for a paint roller having a generally cylindrical applicator roller and frame means supporting said roller for rotation about an axis, which frame means includes a first portion axially extending from one end of the roller, a second portion parallel to the axis of the roller and a third portion perpendicularly extending from the second portion and including handle means, the combination comprising an elongated generally rectangular applicator pad of substantially uniform rectangular cross section including a longitudinally disposed applicator surface and a contact surface in spaced parallel relation thereto and having a longitudinal dimension approximately equal to the axial dimension of said roller, said pad including a rigid backing strip secured to said contact surface in alignment therewith, said backing strip including a pair of parallel spaced apart longitudinally extending side surfaces normal to said contact surface, said side surfaces defining a pair of parallelly aligned longitudinally extending recesses, a bracket having an elongated intermediate surface portion adapted to be positioned generally between the roller and the handle means and including an elongated generally C-shaped channel having a pair of spaced apart longitudinally extending side portions including opposed inwardly turned longitudinally extending end portions, said channel being adapted to receive said backing strip in longitudinally sliding engagement therein with said end portions in gripping engagement with said recesses, said bracket being adapted for attachment to the frame means with said intermediate portion and said pad axially and radially aligned with the roller and said applicator surface in a plane generally tangent thereto, and clip means adjustably secured to said bracket and adapted to engage and releasably retain the second portion for adjustably positioning said bracket relative to the frame means.

References Cited

UNITED STATES PATENTS

2,336,419	12/1943	Pino	15—533
2,554,571	5/1951	Heishman	15—560 X
2,837,757	6/1958	Katanich	15—166 X
2,907,061	10/1959	Whalen	15—114
2,946,073	7/1960	Vosbikian et al.	15—118
3,085,270	4/1963	Vosbikian et al.	15—118 X
3,088,152	5/1963	Lucas	15—230.11
3,115,659	12/1963	Church	15—248.1
3,274,637	9/1966	Schulze	15—248.1 X

FOREIGN PATENTS

586,998	10/1933	Germany.
821,475	11/1951	Germany.
954,819	4/1964	Great Britain.

CHARLES A. WILLMUTH, *Primary Examiner.*

DANIEL BLUM, *Examiner.*