

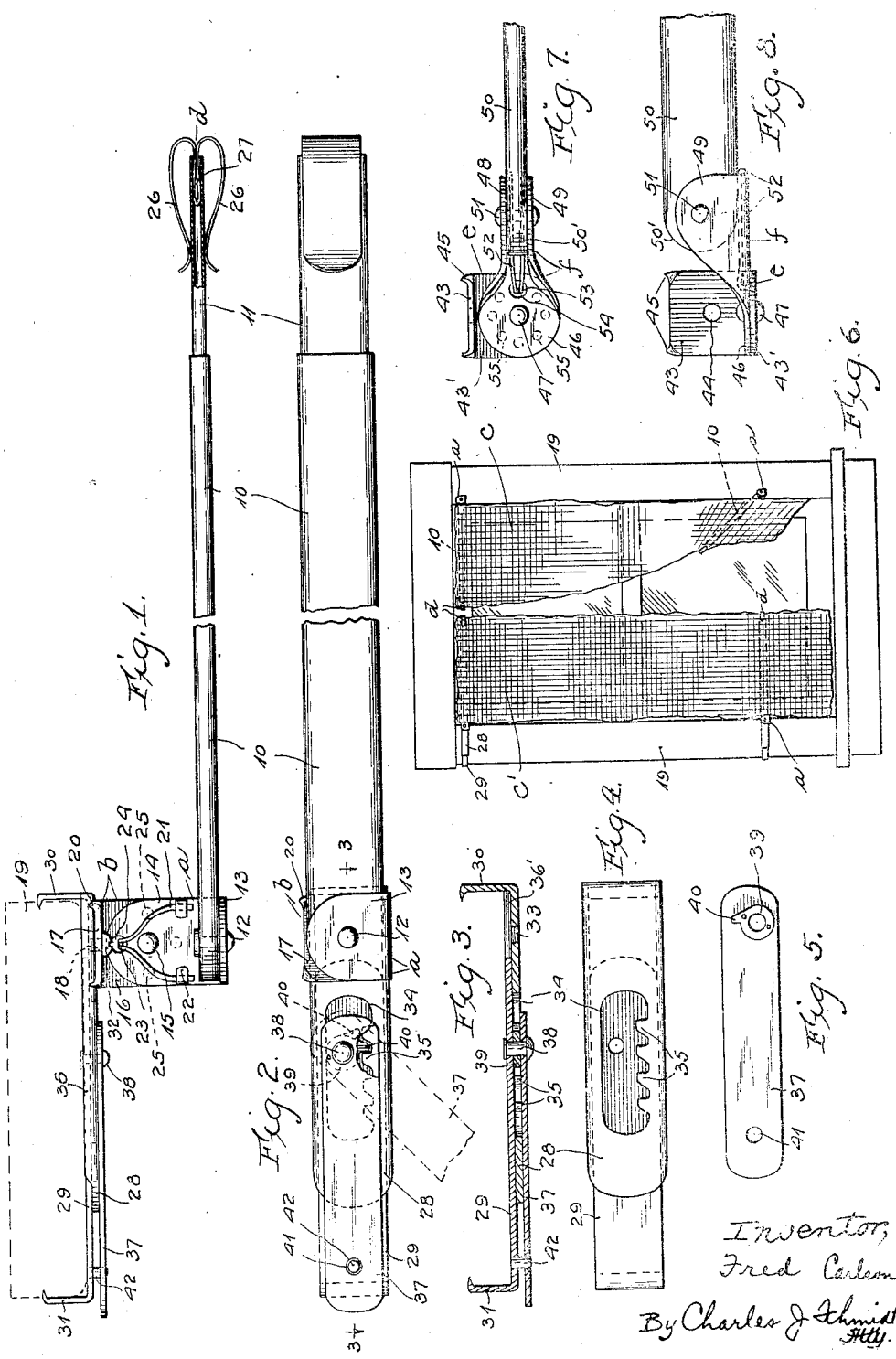
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CURTAIN BRACKET

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UNITED STATES PATENT OFFICE.

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CURTAIN BRACKET.

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To all whom it may concern:

Be it known that I, FRED CARLSON, a citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Curtain Brackets, of which the following is a specification.

My invention relates to brackets, particularly brackets for supporting and holding curtains, draperies or the like for windows. The object of my invention is to provide a simple universally adjustable bracket which can be secured either permanently or by means of detachable clamping mechanism to the window frame in position to hang the curtains or draperies, or in other positions to support the curtains or draperies so that such curtains or draperies may be held in different positions or swung out of the way when access is desired to the window, or the windows are being cleaned.

My improved bracket is illustrated on the accompanying drawing, in which

Fig. 1 is a plan view,

Fig. 2 is a front elevational view,

Fig. 3 is a sectional view on plane 3—3, Fig. 2,

Fig. 4 is a front view of the clamp structure showing the locking cam and its actuating plate removed,

Fig. 5 is an inner side view of the cam and its actuating plate,

Fig. 6 is an illustrative view showing the manner of application of the brackets to a window frame and curtain,

Fig. 7 is a plan view of a modified arrangement, and

Fig. 8 is a front view of such modified arrangement.

The bracket arm comprises the inner tubular length 10 and the outer tubular length 11, the lengths having telescopic engagement. The bracket arm 10 at its inner end is pivoted by the rivet 12 to the vertical wall 13 of the fitting *a* whose horizontal wall 14 is pivoted by the rivet 15 to rotate on the horizontal wall 16 of the supporting fitting *b* whose vertical wall 17 is adapted to be secured directly to a support or to clamping structures to be described later. The wall 17 has the hole 18, by means of which it may be secured directly to a support such as the front board 19 of a window frame, and the wall 17 has also the prongs or teeth 20 at its corners which sink a distance into the support to assist the screw in accurately se-

curing the fitting to the support. The bracket arm by virtue of its pivot engagement 12 with the fitting *a* may be swung in a vertical plane to a distance of 180 degrees, the horizontal wall 14 serving as a stop for the arm when at the ends of its swing. By virtue of the pivot engagement 15, the arm and its supporting fitting *a* may be rotated horizontally to a distance of 90 degrees from a position parallel with the supporting wall 19 to a position at right angles therewith. The pivot connections 12 and 15 thus form a universal connection between the bracket arm and the fitting *b* which enables the arm to be placed in any desired position throughout the range described. To yieldingly lock the arm after shifting thereof horizontally, a detent spring 21 is provided whose ends are secured by the lugs 22, the spring being V-shaped and being deflected at its bend to form a detent projection 23 which extends through the opening 24 in the wall 14 to engage in detent depressions 25 formed in the wall 14. No braking or detent means are provided against the vertical swing of the arm so that the arm is free to respond to gravity at all times with a tendency to swing down unless locked by its engagement with the lower wall 14 of the fitting *a*.

On the right side of Fig. 6, I show the brackets secured directly to the supporting wall 19 by the fittings *b*. The upper bracket receives the hemmed upper end of the curtain *c* in the usual way and the bracket arm 10—11 extends horizontally inwardly and rests against the supporting wall 14 of the fitting *a*. The lower bracket is also directly attached to the wall 19 and at its outer end connects with the lower end of the curtain or some intermediate point. A clip structure *d* for detachably securing the curtain to the end of the bracket arm is preferably provided and has the spring clip arms 26 between which and the outer bracket length 11 the edge of the curtain may be slipped. The stem 27 of the clip frictionally engages in the end of the tubular arm length 11 as shown in Figs. 1 and 2. Referring again to Fig. 6 the lower bracket at the right side is secured at its outer end to the curtain by receiving the inner edge of the curtain by the clip. When the bracket arm is applied it is preferably raised a distance from the horizontal so that its weight will then act on the curtain to hold it down straight and smooth. Now when it is de-

sired to expose the window, as for washing or other purposes the bracket arms of both the upper and lower bracket structures may be swung horizontally to carry the entire curtain away from the window; or, only the lower bracket arm can be swung as indicated in Fig. 6 to hold the lower end of the curtain and keep it from blowing out through the window when the window is open for ventilation. When the arm of the lower bracket structure is swung laterally to move the lower end of the curtain away from the window the arm will raise with the curtain and will hold it taut, and the detent spring 21 will lock the arm in adjusted position in the manner already described.

Instead of directly securing the bracket supporting fitting to the support 19 detachable and adjustable clamping mechanism shown in Figs. 1 to 5 may be used. This clamping mechanism comprises the outer and inner clamping bars 28 and 29 having the clamping jaws 30 and 31 respectively at their ends for engaging against the sides of the supporting wall 19, the jaws being pointed as shown to get a secure hold on the support. When such clamping mechanism is used, the supporting fitting *b* is secured to the outer clamping bar 28, the wall 17 seating against the inner end of said bar and the prongs or teeth 20 engaging with the upper edge of the bar, the screw 32 engaging through the wall 17 and threading into the opening 33 in the front clamping bar. The front clamping bar has the longitudinal slot 34 on whose lower edge are the teeth 35. The front clamping bar has the longitudinal guide flanges 36 and 36' for guiding the rear clamping bar 29, the bars being relatively longitudinally movable. In front of the outer clamping bar is the cam and locking plate 37 which, at its inner end is pivoted to the inner clamping bar 29 by a screw or rivet 38 which extends through the slot 34. Secured to the plate 37 concentric with the pivot connection is the cam hub 39 which fits in the slot 34 and has the cam tooth 40 for cooperating with the teeth 35. The axis of the pivot connection 38 is a distance above the longitudinal center line of the plate 37, and the tooth 40 extends downwardly from the cam hub. When the plate 37 is parallel with the clamping bars the cam tooth will engage between two of the teeth 35 and will consequently lock the bars against relative longitudinal movement. However, when the plate 37 is swung downwardly as shown in dotted lines in Fig. 2, the cam tooth will be withdrawn from the teeth and the clamping plate can be shifted to separate their clamping jaws sufficiently to receive the supporting wall 19. The jaws are then applied against the sides of the supporting wall and the cam

plate is swung back into horizontal position; such swing bringing the cam tooth against one of the teeth 35 to form an abutment center about which the cam hub will rotate or swing, such swing being communicated to the inner clamping plate 29 by virtue of the pivot connection 38, and the clamping plates are thus drawn together to bring their jaws into secure engagement with the sides of the supporting wall 19, the clamping structure being then securely attached to the supporting wall. To lock the cam plate in horizontal or clamped position, it is provided with the opening 41 which receives the locking post 42 extending forwardly from the outer end of the inner clamping bar 29. There will be sufficient spring in the plate 37 to permit its ready disengagement from the post when it is desired to remove the clamping structure or to apply it.

On the left side of Fig. 7 I have shown the clamping mechanism utilized for supporting the bracket arms. The upper clamping mechanism is secured in position so that its bracket arm may receive the upper end of the curtain *c'* while the clamping mechanism for the lower bracket is secured to the wall 19 at some intermediate point to receive the edge of the curtain and hold it normally in place and to permit swing or other positioning thereof. With my improved bracket structures curtains, portières or draperies may be supported in the usual manner and swung like doors to expose the entire window or to have their lower ends held away from the window, the weight of the bracket arms of the lower bracket structures always keeping the curtain taut and smooth.

In Figs. 7 and 8, I have shown a modified universal joint connection between the bracket arm and its supporting fitting. The supporting fitting *e* is of the same shape as the fitting *b* in Figs. 1 and 2, the vertical wall 43 having the nail or screw hole 44 and the anchoring teeth or projections 45 at its upper corner. This fitting may therefore be attached either directly to the supporting wall 19 or to the front clamping bars of the clamping mechanism as shown in Figs. 1 and 2. The fitting *f* for supporting the bracket arm on the fitting *e* is formed of a single piece of sheet metal and comprises the circular base or end portions 46 which is pivoted by the rivet 47 to the wall 43' of the fitting *e*. At its outer end the fitting *f* has the vertical parallel walls 48 and 49 between which the bracket arm 50 is pivoted by means of the rivet 51. With this construction the bracket arm can be swung 180 degrees both vertically and horizontally, the fitting *f* being adapted to swing 180 degrees on the fitting *e* and the bracket arm being adapted to swing vertically to 180 degrees

on its pivot 51, the base 46 serving as a stop when the bracket arm is in horizontal position at the ends of its swing in vertical direction. To yieldingly lock the bracket arm in horizontal position a spring 52 engages between the rounded end 50' of the bracket arm and the base 46, the inner end 53 of the spring being deflected downwardly and passing through the opening 54 in the base 46 to engage in depressions 55 in the wall 43'.

My improved bracket structure can be inexpensively manufactured and constructed practically entirely of sheet metal. By its use curtains, portières, draperies or the like may be hung in the usual positions and swung entirely away from a window or doorway or partially adjusted as desired. The brackets will always keep the curtain taut and smooth.

I do not desire to be limited to the exact construction, arrangement and operation shown and described, as changes may be made which will still come within the scope of the invention.

I claim as follows:

1. In a bracket structure of the class described, the combination of an L-shaped supporting fitting having its vertical wall adapted for application to a support, an intermediate L-shaped fitting having its horizontal wall pivoted to rotate horizontally of the horizontal wall of the supporting fitting, and a supporting bracket arm pivoted at its inner end to the vertical wall of said intermediate fitting for vertical swing.

2. In a bracket structure of the class described, the combination of a supporting fitting having a horizontal wall, an intermediate fitting pivoted on said horizontal wall for horizontal rotation, a bracket arm pivoted at its inner end to said intermediate fitting for vertical swing, and yieldable detent connection between said intermediate fitting and said horizontal wall.

3. In a bracket structure of the class described, the combination of a supporting fitting having a horizontal wall, an intermediate fitting having a horizontal wall and a vertical wall, the horizontal wall of said intermediate fitting being pivoted on the horizontal wall of said supporting fitting for horizontal rotation, a bracket arm pivoted at its inner end to the vertical wall of said intermediate fitting for vertical swing, a detent spring anchored on said intermediate fitting, the horizontal wall of said intermediate fitting having an opening, the horizontal wall of said supporting fitting having detent notches, the end of said spring extending through said opening to engage in

said notches to yieldably lock said intermediate fitting in adjusted position.

4. In a bracket structure of the class described, the combination of a clamp comprising outer and inner clamping bars relatively shiftable longitudinally, clamping jaws at the ends of said bars for receiving a support, cam mechanism for relatively shifting said clamping bars, means for locking said clamping bars in adjusted position, and a bracket arm having pivotal connection with said outer clamping bar to be swung horizontally and vertically.

5. In a bracket structure of the class described, the combination of a supporting clamp comprising outer and inner clamping bars adjustable relatively longitudinally, clamping jaws at the ends of said bars for receiving the sides of a supporting board, cam teeth on said outer bar, a cam plate pivoted to said inner bar, a cam on said cam plate for cooperating with said teeth, said cam being disconnected from said teeth when said cam plate is swung in one direction whereby to permit relative longitudinal adjusting movement of said clamping bars, said cam engaging with said teeth to draw said bars together when said cam plate is swung in the opposite direction whereby said clamping jaws are brought into engagement with a support, and means for locking said cam plate in clamping position, and a bracket arm having universal pivotal connection with said outer clamping bar so that it may be swung both vertically and horizontally.

6. In a bracket structure of the class described, the combination of a clamp comprising outer and inner clamping bars, clamping jaws at the ends of said bars for receiving and clamping the sides of a supporting board, said outer clamping bar having a longitudinal slot, teeth extending upwardly from the lower edge of said slot, a cam plate pivoted at its inner end to said inner clamping bar, a cam projection on said plate below its pivot point for cooperating with said teeth, said cam projection being disconnected from said teeth when said cam plate is swung in one direction whereby said clamping bars may be adjustably shifted, said cam projection engaging with said teeth to forcibly draw said clamping jaws together when said cam plate is swung into normal position, means for locking said cam plate in normal position, and a supporting bracket arm having universal pivotal connection with one of said clamping bars to be adapted for vertical and horizontal swing.

In witness whereof, I hereunto subscribe my name this 5th day of April, A. D., 1924.

FRED CARLSON.