May 31, 1949. H. G. JONES 2,471,962

MOVABLE AWNING

Filed Jan. 6, 1947 2 Sheets-Sheet 1

Fig. 1.

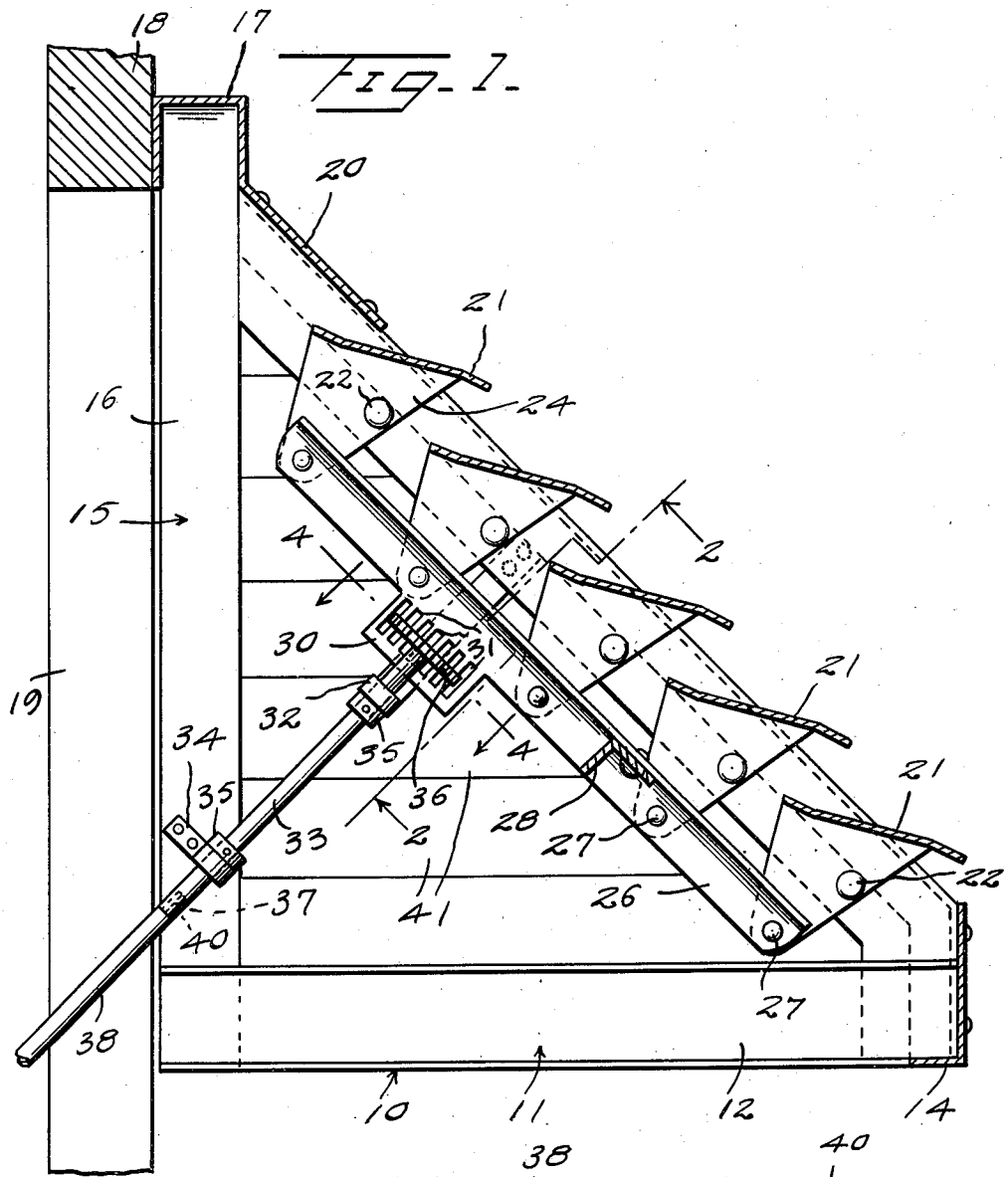
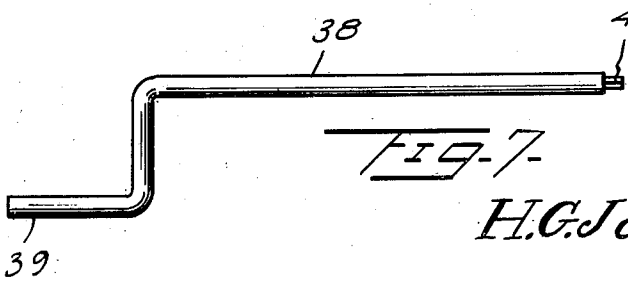


Fig. 7.



Inventor

H. G. Jones

By Kimmel & Crowell Attorneys

May 31, 1949. H. G. JONES 2,471,962

MOVABLE AWNING

Filed Jan. 6, 1947 2 Sheets-Sheet 2

Fig. 2.

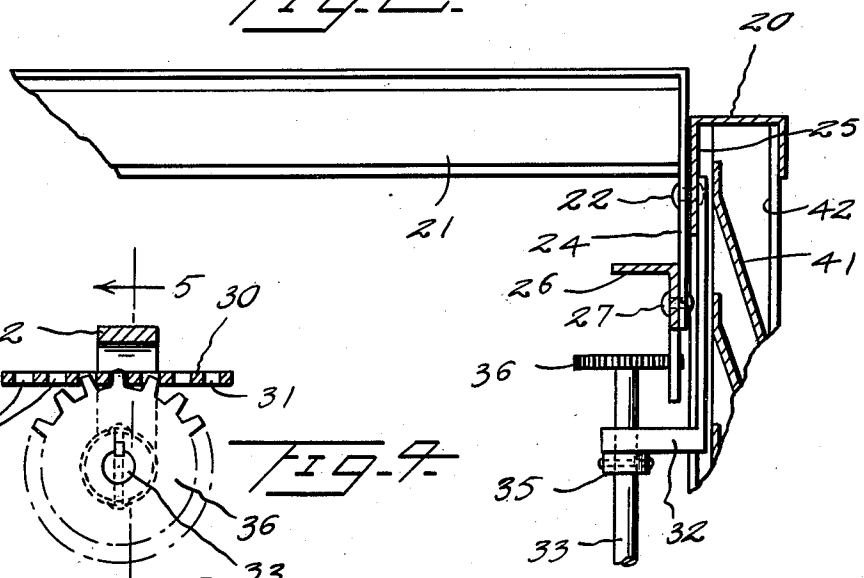


Fig. 4.

Fig. 5.

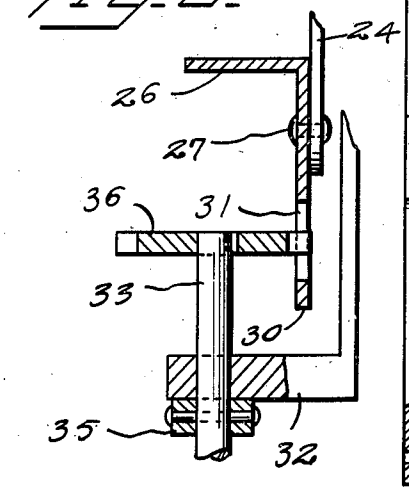


Fig. 3.

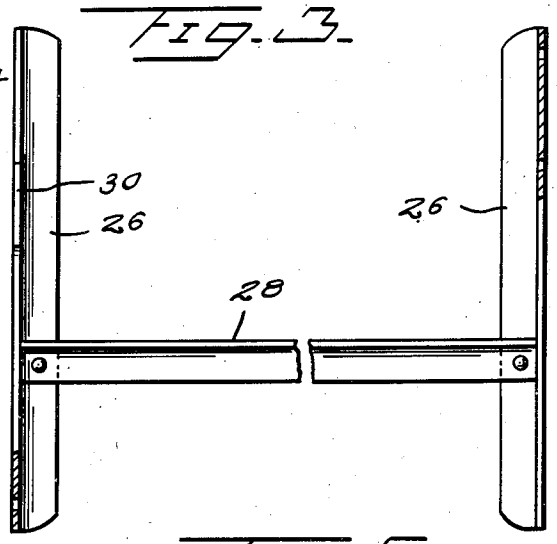
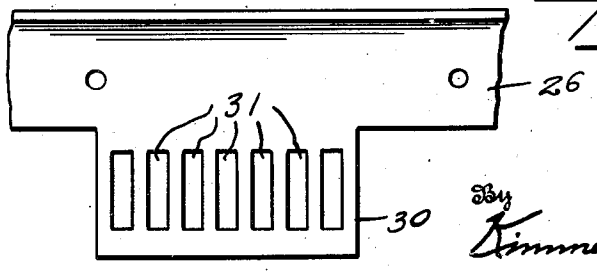


Fig. 6.



Inventor

H. G. Jones

By Kimmel & Crowell Attorneys

Patented May 31, 1949 2,471,962

UNITED STATES PATENT OFFICE

2,471,962

MOVABLE AWNING

Henry G. Jones, Austin, Tex.

Application January 6, 1947, Serial No. 720,430

1 Claim. (Cl. 20—57.5)

1

This invention relates to metal awnings, and more particularly to a metal awning having movable louvres.

It is an object of this invention to provide an awning of the kind to be more specifically described hereinafter, having an improved operator for moving the louvres from a closed to an open position, or any intermediate position desired.

Another object of this invention is to provide an improved operator for metal awnings of this kind, which is very efficient by virtue of the simplicity of its construction, having but a single moving part for engaging with a serrated plate or rack fixed to the louvre operating bar.

A further object of this invention is to provide an improved operating means for a metal awning or the like, which will be extremely simple and easy to manufacture and assemble, and which by this simplicity, will require a very minimum amount of maintenance, thus presenting the most desirable characteristics required by manufacturers and purchasers at the same time.

With the above and other objects in view, my invention consists in the arrangement, combination and details of construction disclosed in the drawings and specification, and then more particularly pointed out in the appended claim.

In the drawings,

Figure 1 is a vertical section through an awning constructed according to an embodiment of this invention,

Figure 2 is a fragmentary section taken on the line 2—2 of Figure 1,

Figure 3 is a bottom plan view of the connecting bars removed from the awning, partly broken away and partly in section,

Figure 4 is a fragmentary section taken on the line 4—4 of Figure 1,

Figure 5 is a section taken on the line 5—5 of Figure 4,

Figure 6 is a fragmentary detail side elevation of the apertured plate of one of the connecting bars,

Figure 7 is a plan view of the crank detached from the operating mechanism.

Referring to the drawings, the numeral 10 designates generally a metal awning having movable louvres operated by an operator, constructed according to an embodiment of this invention. The awning 10 is formed of a horizontal U-shaped frame 11 at the lower end thereof. The side members 12 of the frame 11 are formed U-shaped in section, and the bight or outer member 14 is formed of an L-shaped section.

A vertical frame 15, U-shaped in overall dimen-

2

sions is fixed to the inner or free end of the horizontal frame 11. The frame 15 is formed of L-shaped side arms 16, and a bight or upper section 17 is substantially U-shaped or channeled in section. As the free ends of the vertical frame 15 are fixed to the free ends of the horizontal frame 11, the entire inner end of the awning 10 is opened. The vertical frame 15 is adapted to be fixed to a wall 18 about a window opening 19. A pair of downwardly and outwardly inclined side members 20 are fixed between the divergent ends of the frames 11 and 15.

The side members 20 are U-shaped in transverse section as shown in Figure 2 of the drawings. Louvres 21 are pivotally supported between the opposed side members 20 by a pin 22 through the flanged portion 24 at each end of the louvres 21, and through the inner arm 25 of the U-shaped side members 20. The louvres 21 are so shaped that the lowermost edge of each louvre is adapted to overlie the uppermost edge of the next lower louvre to exclude rain or moisture from entering between the louvres when they are in the closed position.

The louvres 21 are fixed together for unitary movement so that the movement of one, either opened or closed, will effect a similar movement of all the other louvres 21. For effecting this unitary movement of the louvres 21, a connecting bar 26 is pivotally attached to each end of the louvres 21 by a pin 27 at the lower end of the V-shaped flange 24 at each end of the louvres. The connecting bars 26 are of an inverted L-shape in section for added strength and are disposed below the side members 20 of the awning 10. A transverse L-shaped connecting bar 28 is fixed between the opposite connecting bars 26 to provide a rigid frame for moving both ends of all the louvres at one time.

The louvres 21 may be operated by a person from within the house or on the opposite side of the window opening 19. For rocking the louvres 21 a simple and efficient operator is provided. An apertured plate 30 is fixed to or formed on one of the connecting bars 26 intermediate the length thereof. The plate 30 extends below the lower edge of the connecting bar 26 and is formed with a series of elongated rectangular apertures 31 perpendicular to the length of the connecting bar 26.

The series of openings 31 form a rack for operating the louvres from open or closed position. An L-shaped bracket as 32 is fixed to one of the side members 20 on the same side as the plate 30 for supporting a shaft 33 at its upper end, and

a bracket 34 is fixed to the inside edge of one of the arms 16 of the vertical frame 15 for rotatably supporting the shaft 33 at its lower end.

Bearing plates 35 are fixed on the shaft 33, one below the bracket 32 and one above the bracket 34 for holding the shaft 33 against sliding movement in the bracket. A spur gear 36 is fixed on the upper end of the shaft 33 and the teeth of the gear 36 are adapted to engage in the openings 31 of the rack 30. Rotation of the shaft 33 will then effect longitudinal movement of the connecting bar 26 which in turn effects pivotal movement of the louvres 21 between the side members 20, for opening or closing the louvres.

The lower end of the shaft 33 is adapted to extend inwardly beyond the bracket 34 and be terminated outwardly of the outer edge of the window opening 19. The lower end of the shaft 33 is formed with a longitudinally extending rectangular opening 37 for the engagement of a crank 38 for rotating the shaft 33. The crank 38 is formed of an elongated rod having a handle 39 at one end thereof, and a rectangular outer end 40 which is adapted to engage in the opening 37 so that the shaft 33 may be rotated thereby. The crank 38 when not in use may be removed from the shaft 33 and placed in a convenient location where it may be easily reached for changing the position of the louvres.

Fixed louvres 41 are disposed horizontally across the sides of the awning 10. The louvres 41 are fixed in frames 42 which are removably secured to the frames 11 and 15 and engage between the arms of the inclined side members 20. The lowermost edges of each of the fixed louvres

41 is adapted to overlie the upper edge of the next lower louvre in the same manner as the pivoted louvres 21 in their partially closed position. The construction and installation of the side frames 42 is preferably the same as that shown and described in my copending application for a fixed awning.

What I claim is:

In a metal awning having transverse pivoted louvers, an operator for rocking said louvers about the pivots thereof, said operator including a connecting bar, means rockably connecting said bar to each of said louvers, a depending plate on said bar formed with a plurality of adjacent elongated openings disposed at a right angle relative to the length thereof, a toothed gear rotatably carried by said awning, the teeth of said gear engageable in said openings and slidable along the length thereof for rocking said louvers upon rotation of said gear.

HENRY G. JONES.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
2,322,705	Whitney	June 4, 1940
2,234,712	Swanfeldt	Mar. 11, 1941
2,296,467	Dugan	Sept. 22, 1942
2,322,705	Small	June 22, 1943
2,394,736	Adelsperger	Feb. 12, 1946