O. P. KLÄSSIG.

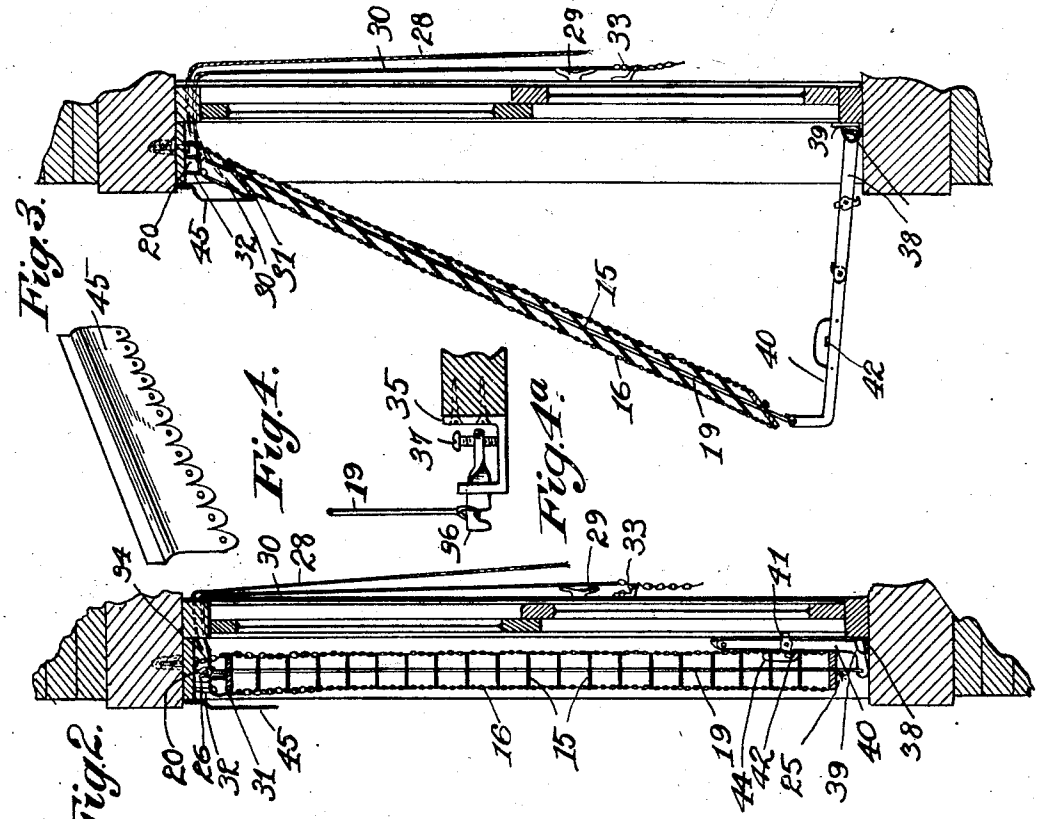
COMBINED BLIND AND AWNING.

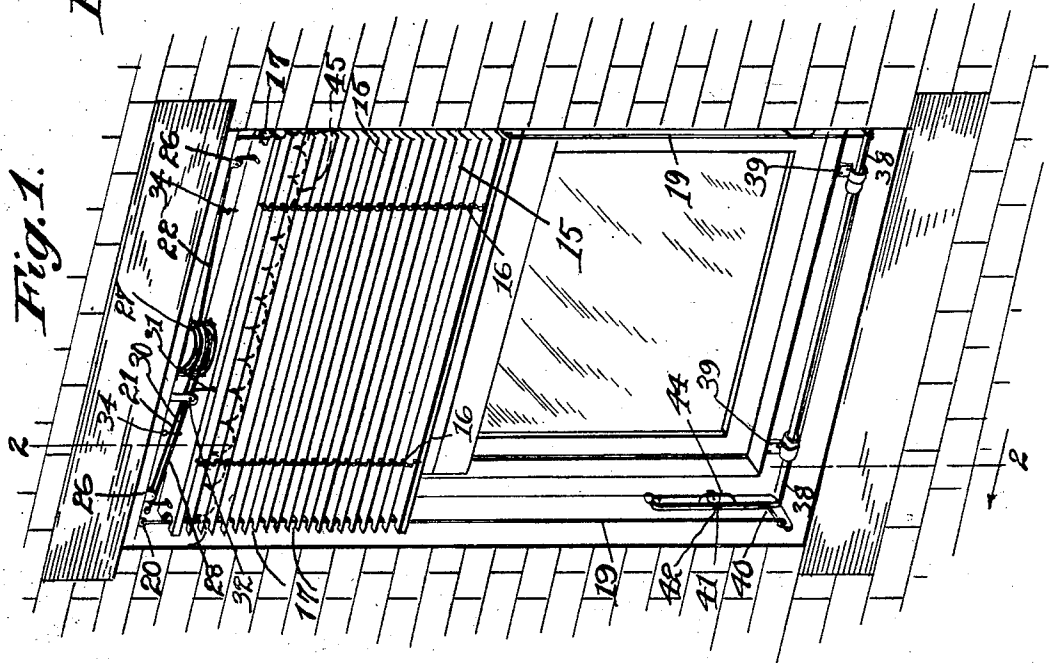
APPLICATION FILED FEB. 11, 1914.

1,121,022.

Patented Dec. 15, 1914.

2 SHEETS—SHEET 1.





Witnesses:
P. M. Pittman
P. Philipp.

Inventor:
Oskar Paul Klässig,
By his Attorney John A. Seifert

O. P. KLÄSSIG.

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2 SHEETS—SHEET 2.

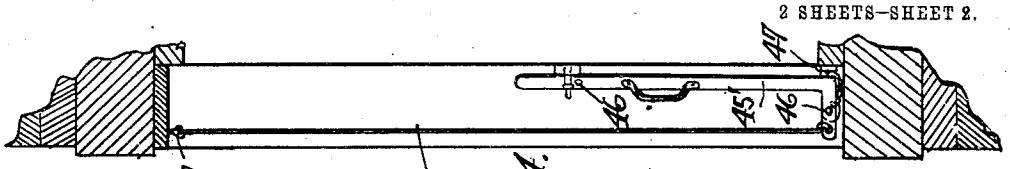


Fig. 14.

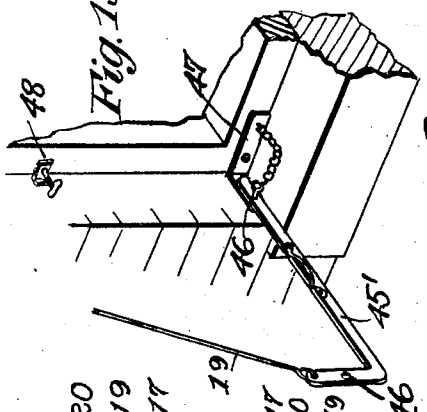


Fig. 13.

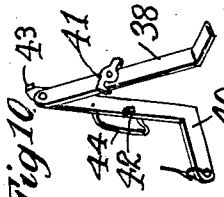


Fig. 10.

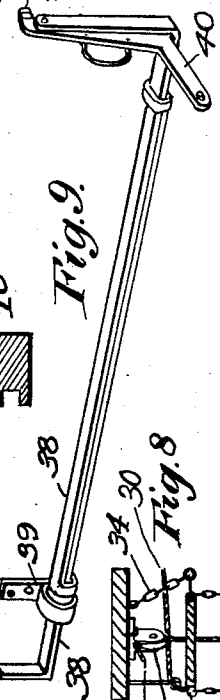


Fig. 9.

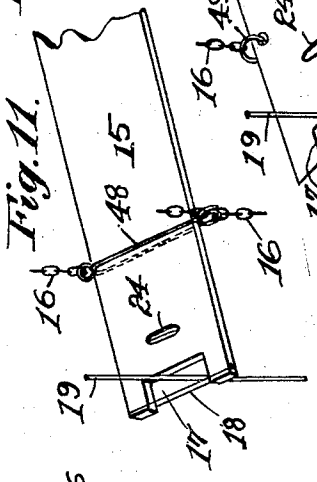


Fig. 11.



Fig. 12.

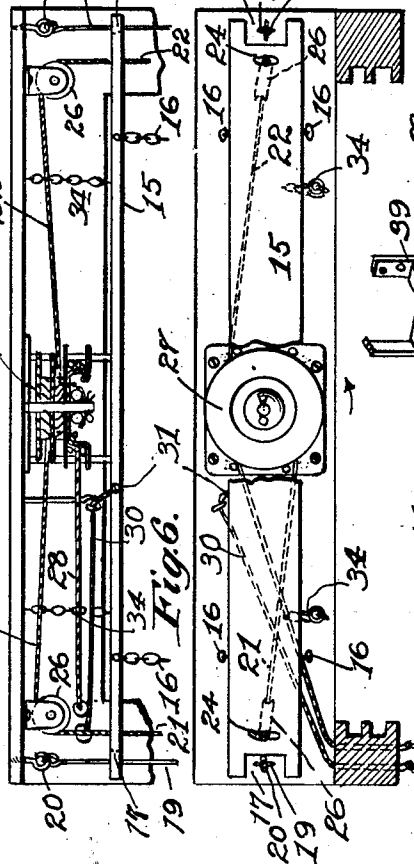


Fig. 5.

Fig. 6.

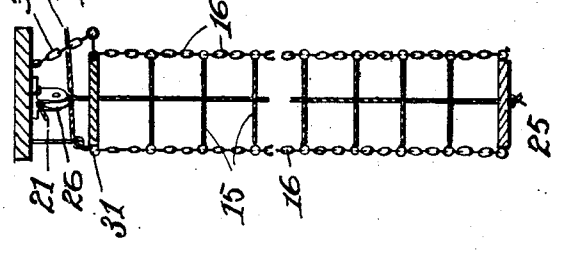


Fig. 8.

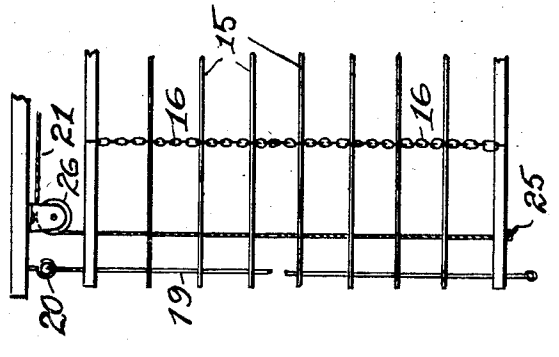


Fig. 7.

Witnesses:

R. W. Pittman

P. Philipp.

Inventor:

Oskar Paul Klässig,

By his Attorney John O. Seifert

UNITED STATES PATENT OFFICE.

OSKAR PAUL KLÄSSIG, OF NEW YORK, N. Y.

COMBINED BLIND AND AWNING.

1,121,022. Specification of Letters Patent. Patented Dec. 15, 1914.

Application filed February 11, 1914. Serial No. 817,994.

To all whom it may concern:

Be it known that I, OSKAR PAUL KLÄSSIG, subject of the Emperor of Germany, residing in the borough of Manhattan, in the city, county, and State of New York, have invented a new and useful Improved Combined Blind and Awning, of which the following is a specification.

This invention relates to Venetian shutters or blinds to be located outside the window and which may also be utilized as an awning, and it is the object of the invention to provide in a combined blind and awning of this character adjustable means to rigidly support the slats of the blinds either when used as a blind or an awning, to improved means to adjust the slats on said rigid support, and to tilt the slats.

With these objects in view the slats are connected by chain-links with a rod or bar engaging in openings in the ends of the slats pivotally connected to the top of the window frame with the lowermost ends thereof pivotally connected to an adjustable support to rigidly maintain the rods in a perpendicular position when the device is used as a blind or in a position inclined to the perpendicular when utilized as an awning. To adjust the slats of the blind on said rods when utilized as a Venetian shutter, I provide a pair of cables or ropes passing through openings in the slats, one adjacent each end, with one end of the ropes secured to the lowermost slat, the other ends of the ropes being connected to a drum rotatable on a vertical axis and located substantially midway of the top member of the window frame. Also connected to said drum is an actuating cable or rope normally wound on the drum when the slats are in their lowered position, said rope passing through an opening in the window frame so that it is inside of the building, and by pulling on said rope the drum is rotated and the slat ropes wound on the drum raising the slats on the supporting rods. A second rope or cable connected to the uppermost slat also passes through an opening in the window frame and by maintaining said rope taut the slats of the shutter are maintained in a horizontal position, but by releasing said rope the forward edge of the upper slat will drop down and by reason of the chain-link connection the forward ends of all of the shutters will drop.

In the drawings accompanying and forming a part of this specification, Figure 1 is a perspective view of a window and window frame illustrating an embodiment of my invention applied thereto. Fig. 2 is a sectional side elevation taken substantially on the line 2—2 of Fig. 1, looking in the direction of the arrow, showing the invention applied as a Venetian shutter with the slats in horizontal position. Fig. 3 is a sectional side elevation showing the invention applied as an awning. Fig. 4 is a perspective view of a portion of a shield to extend across the top of the blind to protect the operating mechanism. Fig. 4ª is a side elevation of a detail showing means to adjustably secure one end of the slat supporting and guiding rods when used as a Venetian shutter. Fig. 5 is a front elevation of the slat operating means. Fig. 6 is a view looking at the bottom of the slat operating means. Fig. 7 is a front elevation of one end of the blind showing the slats in horizontal position. Fig. 8 is a sectional side elevation of the blind showing the slats in horizontal position. Fig. 9 is a perspective view of one form of adjustable support for the lower ends of the slat supporting and guide rods. Fig. 10 is a perspective view of another form of support for the lower ends of the slat supporting and guide rods. Figs. 11 and 12 are perspective detail views illustrating modifications of the means to support the slats. Fig. 13 is a perspective view of a portion of a window frame showing a modified form of a bracket for supporting the lower end of the slat supporting and guide rods and showing the same in position when utilizing the blind as an awning; and Fig. 14 is a sectional side elevation of a window frame showing the form of bracket illustrated in Fig. 13 applied thereto when used as a support for the rods when the device is utilized as a Venetian blind.

Similar characters of reference designate like parts throughout the different views of the drawings.

The embodiment of my invention illustrated in the drawings consists of a series of superposed slats 15 connected at their front and rear longitudnial edges by chain links, as at 16, so that simultaneous tilting movement and to the same extent will be imparted to all of the slats. The slats may be constructed of any suitable wood or metal and have openings or recesses 17 at opposite ends, and when constructed of

wood a wire binding 18 is passed around the slat to extend from the front to the rear to prevent liability of splitting of the slat, but when the slat is made of metal this rod is not required.

The slats are supported and guided at opposite ends by a pair of rods 19, pivotally connected at their upper ends to the top of the window frame, as by eye-bolts 20, and their lower ends connected to adjustable brackets secured to the window frame to rigidly maintain said rods either in a perpendicular position or in a position inclined to the perpendicular for a purpose to be fully described hereinafter. The openings 17 in the slats are of such a size to permit of the ready adjustment of the slats along the supporting rods and to also permit of the tilting of the slats.

To adjust the slats along the rods 19, I provide a pair of cables or ropes 21, 22, passing through openings 24 adjacent the ends of the slats with one end connected to the lowermost slat, or the ends of the ropes may be knotted with the lowermost slat supported on said knots, as shown at 25 in Figs. 7 and 8. These ropes pass over pulleys 26 carried by brackets secured to the top member of the window frame and secured to a drum 27 mounted to rotate on a vertical axis substantially midway of the top member of the window frame, preferably through the medium of ball bearings. Also connected to said drum is a rope 28 passing through an opening in the window frame to manipulate the shutters from inside of the building. The rope 28 when the slats of the blinds are separated and in their lowermost position is wound on the drum 27 and to adjust the slats upward on the supporting rods 19 the rope 28 is pulled thereby unwinding it from the drum and rotating the latter causing the ropes 21, 22 to wind on the drum in opposite directions and pulling the slats up on the rods 19, and when adjusted to the desired position the rope 28 is secured in a suitable manner, as by winding on the cleat 29, (Fig. 2). When the rope 28 is released the slats will drop unwinding the slat ropes 21, 22, from the frame and the actuating rope winding onto the drum. This drum is preferably constructed with a series of three annular recesses so that the winding of the ropes 21, 22 and 28 thereon will not interfere with each other.

The slats of the shutter are maintained in a horizontal position by a rope 30 secured at one end to the forward edge of the uppermost slat, as at 31, guided through an eye-bolt 32 and passing through an opening in the window frame into the building and maintained taut by securing to a hook 32 on the window frame. To limit the upward tilting movement of the forward edges of the slats, I provide chains 34 connected at one end to the window frame and the other ends connected to screw eyes projecting from the lateral edge of the upper slats, as clearly shown in Figs. 5, 6 and 8. To tilt the slats it is only necessary to release the rope 30 and rock the slats through the medium of the chain-links.

To maintain the supporting and guide rods 19 rigid when the device is to be used as a Venetian shutter only, I secure to the window frame a pair of brackets 35, one of which is shown in Fig. 4ª, and pivotally support in said brackets latches 36, one end of which latches are in the form of a hook to engage in eyes formed at the lower ends of the rods 19, the other ends of the latches having set screws 37 the free ends of which are adapted to engage with the brackets, and it will be obvious that by screwing said srews into the latches the latter will be tilted and the rods thereby drawn taut.

To adapt the device as a combined Venetian blind and awning, I provide a bracket consisting of a pair of connected endwise adjustable members 38, 38, the free end of each member being bent up at right angles. By thus constructing this bracket it is adaptable to window frames of different widths. This bracket is supported to have rotative movement in cleats 39 fixed to the window frame. Pivotally connected to the ends of the angular portions of the bracket members 38 are elbow links 40, to which are connected the ends of the rods 19, as clearly shown in Figs. 1, 2 and 3. In Figs. 1 and 2 this bracket is shown in position to adapt the device as a Venetian shutter, the angle portion of the bracket member 38 lying flush with the window frame and the links 40 being folded so that the bent portions lie adjacent to the bottom member of the window frame and locked in this position by a latch 41 pivotally carried by the angle portion of one of the bracket members 38 catching over a nib 42 projecting laterally from the elbow link 40, (Fig. 2). To adapt the blind as an awning the latch 41 is released when the link members are unfolded and the bracket members 38 are rotated in their supports, the movement of the links 40 being limited by a laterally projecting nose 43 engaging with the angle portion of the bracket members 38. To facilitate the unfolding of the link members 40 to adapt the blind as as awning the links 40 are provided with hand grips 44. To conceal and protect the shutter actuating mechanism, I provide a shield of sheet metal 45 which may be of ornamental construction and secured to the top member of the window frame, as shown in Figs. 2, 3 and 4.

In Figs. 13 and 14 I have shown a modified form of adjustable bracket to support the lower ends of the rods 19. In this construction angle arms 45′ are provided to

one end of which arms the rods are connected by engaging in either one of a series of openings 46. The other end of the angle arms are adapted to be releasably connected to either one of a pair of brackets 47, 48 by means of releasable pins passing through openings in said arms. In Fig. 13 one of these arms 45′ is shown in position to support the rods when the device is used as an awning, and in Fig. 14 when used as a Venetian blind or shutter. These arms may also be provided with hand grips to facilitate the manipulation of the same.

The chain-links to connect the slats may be directly connected to the edges of the slats. However, when wooden slats are utilized they may be provided with a brace 48 consisting of a piece of wire bent to embrace both faces of the slat and provided with eyes at the forward and rear edges of the slats to which the chain-links are connected, as clearly shown in Fig. 11. When a metal slat is used the slat may be provided with openings adjacent the front and rear edges in which engage rings 49 to which the chain links are connected, as clearly shown in Fig. 12.

Having thus described my invention I claim:

1. The combination with a window frame, of a series of superposed and connected slats having openings in each end thereof; a pair of rods adapted to be pivotally connected to the top of the window frame, one rod adjacent each end of the slats and engaging in the openings therein; and means to which the lower ends of the rods are connected to rigidly maintain the rods in a perpendicular position or in a position inclined to the perpendicular, comprising an endwise adjustable bracket connected to the window frame, and elbow levers pivotally connected to said bracket and to which the lower ends of the rods are connected.

2. The combination with a window frame, of a series of superposed and connected slats having openings in each end thereof; a pair of rods adapted to be pivotally connected to the top of the window frame, one rod adjacent each end of the slats and engaging in the openings therein; and means to which the lower ends of the rods are connected to rigidly maintain the rods in a perpendicular position or in a position inclined to the perpendicular, comprising a pair of foldable brackets supported by the window frame and to which the lower ends of the rods are connected.

3. The combination with a window frame, of a series of superposed and connected slats having openings in the ends thereof; a pair of rods connected to the window frame, one at each end of the slats and engaging in the slat openings; a pair of ropes passing through openings in the slats, one rope adjacent each end of the slats with the ends connected to the lowermost slat; a drum rotatable on a vertical axis to which the other ends of the ropes are connected; and a rope connected to the drum to rotate the same and thereby wind and unwind the slat ropes on the drum to raise or lower the slats on the supporting rods.

4. The combination with a window frame, of a series of superposed and connected slats having openings in the ends thereof; a pair of rods connected to the window frame, one at each end of the slats and engaging in the slat openings; a pair of ropes passing through openings in the slats, one rope adjacent each end of the slats with the ends connected to the lowermost slat, a drum rotatable on a vertical axis to which the other ends of the ropes are connected; a rope passing through an opening in the window frame connected to the drum to rotate the same and thereby wind and unwind the slat ropes on the drum to raise and lower the slats on the supporting rods; and a second rope connected to the uppermost slat passing through an opening in the window frame to tilt the slats and maintain them in a horizontal position.

OSKAR PAUL KLÄSSIG.

Witnesses:
R. W. PITTMAN,
JOHN O. SEIFERT.