C. POEHNER.

VENTILATING WINDOW.

APPLICATION FILED SEPT. 22, 1917.

1,344,561.

Patented June 22, 1920.

2 SHEETS—SHEET 1.

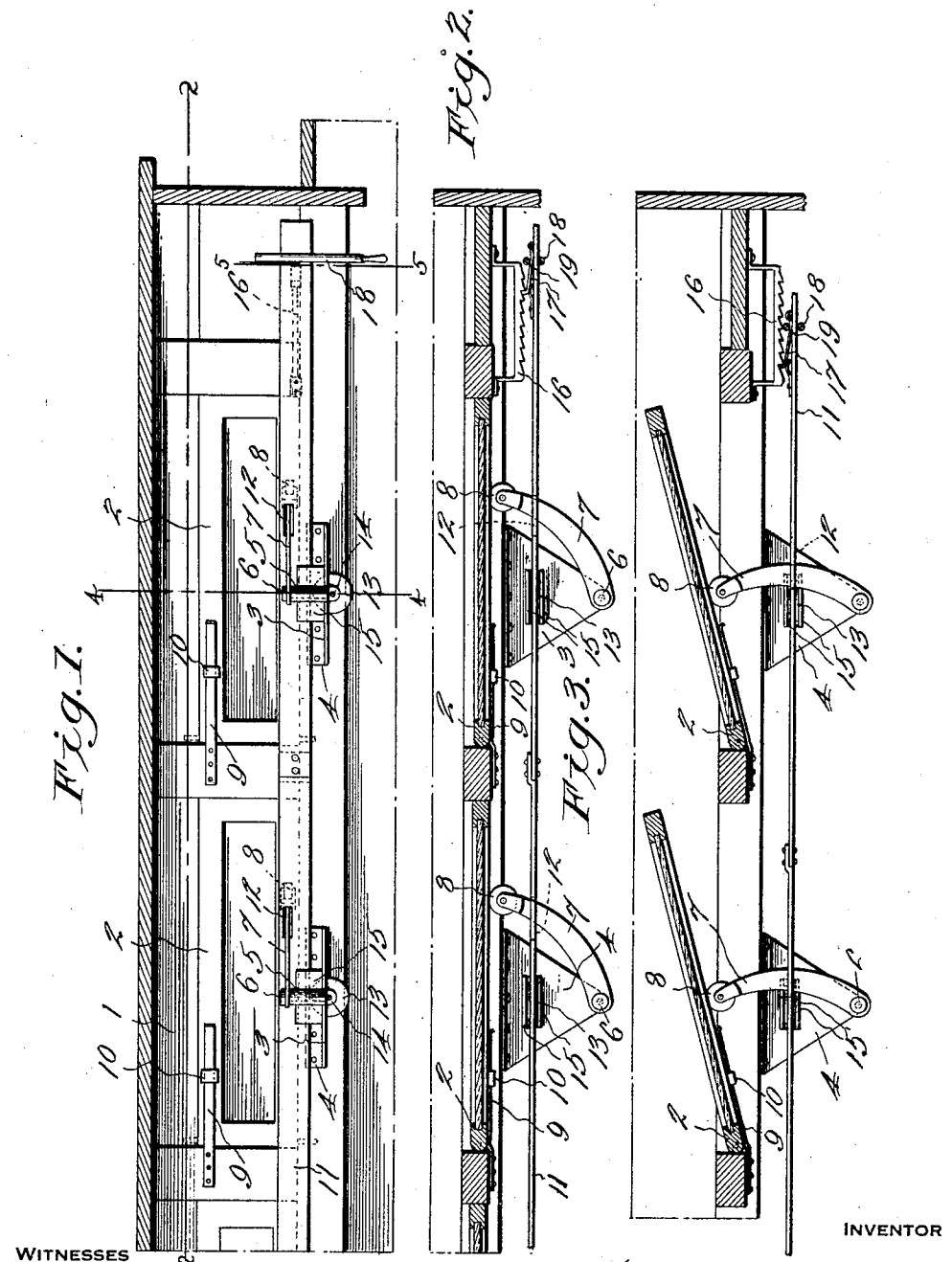


Fig. 1.

Fig. 2.

Fig. 3.

WITNESSES

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2 SHEETS—SHEET 2.

Fig. 4.

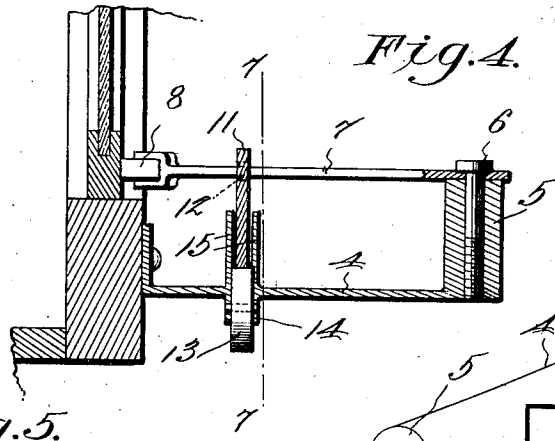



Fig. 5.

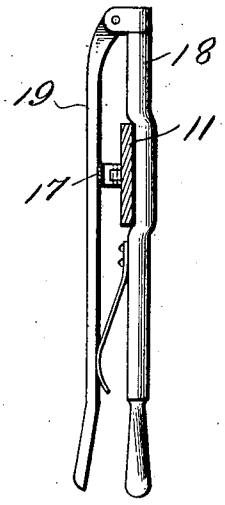



Fig. 8.

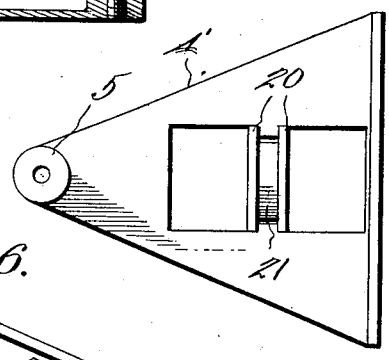



Fig. 6.

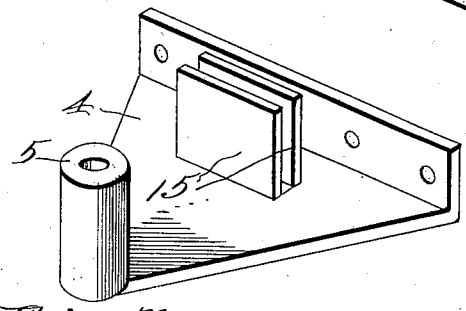
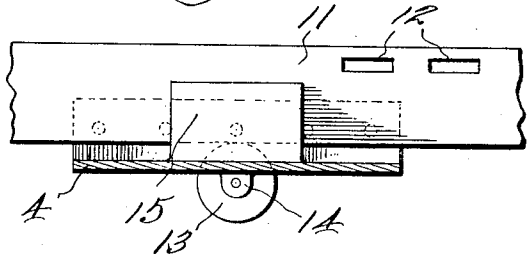



Fig. 7.




WITNESSES

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# UNITED STATES PATENT OFFICE.

CONRAD POEHNER, OF CINCINNATI, OHIO.

## VENTILATING-WINDOW.

1,344,561. Specification of Letters Patent. Patented June 22, 1920.

Application filed Septemebr 22, 1917. Serial No. 192,728.

*To all whom it may concern:*

Be it known that I, CONRAD POEHNER, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented new and useful Improvements in Ventilating-Windows, of which the following is a specification.

This invention relates to improvements in ventilating windows and has particular application to a ventilating car window.

In carrying out the present invention, it is my purpose to provide a ventilating car window wherein the shutters may be swung to open and closed positions quickly and conveniently and held in either open or closed position and wherein the component parts will be so arranged and correlated as to reduce the possibility of derangement to a minimum.

With the above and other objects in view, the invention consists in the construction, combination and arrangement of parts hereinafter set forth in and falling within the scope of the claims.

In the accompanying drawings:

Figure 1 is a view in front elevation of a car window constructed in accordance with the present invention.

Fig. 2 is a sectional view approximately on the line 2—2 of Fig. 1.

Fig. 3 is a similar view showing the window in open position.

Fig. 4 is a detail enlarged sectional view on the line 4—4 of Fig. 1.

Fig. 5 is an enlarged detail section on the line 5—5 of Fig. 1.

Fig. 6 is a perspective view of one of the brackets employed.

Fig. 7 is a sectional view on the line 7—7 of Fig. 4.

Fig. 8 is a plan view of a modified construction of brackets.

Referring now to the drawings in detail, 1 designates the top portion of one side of a car immediately below the roof and, as usual, this portion of the car is formed with window openings spaced apart longitudinally along the car. Arranged in each opening is one of my improved ventilating windows, the shutters 2 of such window or shutter comprising the usual rectangular frame fitted in the opening and provided at one end with trunnions journaled in the top and bottom walls of the window opening. Secured to the side of the car below each shutter is an outwardly extending bracket arm 3. Each of the bracket arms 3 includes a flat base which is substantially V shaped in plan having its wider end flanged and provided with openings through which pass the securing elements that enter the side of the car, the reduced or apex of the said body having arranged thereon a tubular post 5, the bore of which being preferably threaded, and passing through the posts of each of the bracket members 3, is a headed pintle 6, the shank of which being threaded to engage with the threads in the bore of the valve. The pintles 6, provide each a pivoted member for a curved arm 7, and the inner ends of these arms are arranged in juxtaposition to the respective shutters and are equipped with rollers 8 that bear against the shutters.

The numerals 9 designate leaf springs that are secured to the panels between the window frames, and the numerals 10 designate substantially U-shaped guide members for the free ends of the springs 9, the said guides being secured upon the upper slats of the window frames. The springs 9 normally retain the shutters in normal closed position.

The operating bar for the device is indicated by the numeral 11, and may comprise any desired number of jointed sections. The bar, at determined intervals is provided with elongated slots 12, through which the curved arms 7 pass, and as illustrated in Fig. 7 of the drawings, the slots 12 may be arranged in close proximity to each other, so that the arms 7 may be arranged in a desired slot to adjust the angle at which the shutters may be swung to their open positions by a determined movement of the bar 11 in a longitudinal direction. The lower edge of the bar 11 rests on rollers 13 journaled in suitable bearings 14 provided by the brackets 4, and arranged upon the under faces of the said brackets, the rollers having their upper periphery arranged in suitable openings in the base 4, of the brackets, and to the opposite sides of the said openings, each of the brackets is formed with upstanding guide plates 15—15 for the bar 11.

Arranged below the window opening at one end thereof is a ratchet bar 16 and secured to the adjacent end portion of the bar 11 is a spring latching dog 17 adapted to engage the ratchet bar 16 to hold the actuat-

ing bar 11 in adjusted position. 18 designates a vertical handle secured to the end of the actuating rod equipped with the dog 17 and having pivoted thereto an arm 19 arranged alongside of the handle 18 and bearing against the dog 17.

In practice, the arm 19 is swung toward the handle 18 to disengage the dog 17 from the ratchet 16, thereby releasing the actuating rod so that the latter may be moved in one direction or the other. In the movement of the rod 11 in one direction, the arms 7 being contacted by one of the end walls of the slots 12 will be swung upon their pivots to bring the rollers 8 in contact with the shutters 2 to swing the shutters outwardly against the action of the leaf springs 9 and after the shutters are opened the desired distance the handle is released and the spring dog 17 reëngages the ratchet bar to hold the shutters open. On the other hand, when the direction of movement of the actuating rod is reversed, the shutters are relieved of the influence of the arms 7 and the springs 9 react to close the shutters.

In Fig. 8 of the drawings, I have illustrated a modified construction of the bracket, the same being substantially similar to that previously described, except that I slit the flat base 4′ thereof, in opposite directions, and bend the metal bounded by the slits upwardly, to provide the guide plates 20—20 for the operating bar, between the said plates, I journal the bearing roller 21 for the bar.

While I have herein shown and described the preferred form of my invention by way of illustration, I wish it to be understood that I do not limit or confine myself to the precise details of construction herein described and delineated, as modification and variation may be made within the scope of the claims and without departing from the spirit of the invention.

I claim:

1. In a device for the purpose set forth, a hinged shutter, a flat spring guided thereon and contacting therewith for retaining the shutter in one position, a bracket below the shutter, guides on said bracket, anti-frictional elements carried thereby, a curved arm pivoted on the outer end of said bracket and contacting with said shutter, a slotted actuating rod receiving the arm and resting on the anti-frictional element between the guides, a ratchet bar, a spring latching dog carried by the operating bar and engaging said ratchet bar, a handle for the operating bar, a spring influenced arm pivotally secured to said handle and being arranged, when forced toward the handle to operate the dog to bring the same out of engagement with the rack.

2. In a device for the purpose set forth, a hinged shutter, a flat spring having a free end contacting with the shutter for holding the same in one position, a U-shaped guide for the spring, a bracket below the shutter, a curved arm pivotally secured to the bracket, and contacting with the shutter, a slotted actuating rod through which the arm passes, a ratchet bar disposed to one side of the shutter, a spring latching dog secured to the operating bar and engaging the ratchet bar, a handle connected to the end of the actuating rod, a handle having one of its ends pivotally secured to the arm and bearing against the dog, and spring means between the arm and handle for normally influencing the said arm away from the handle, as and for the purpose set forth.

In testimony whereof I affix my signature.

CONRAD POEHNER.