

No. 713,525.

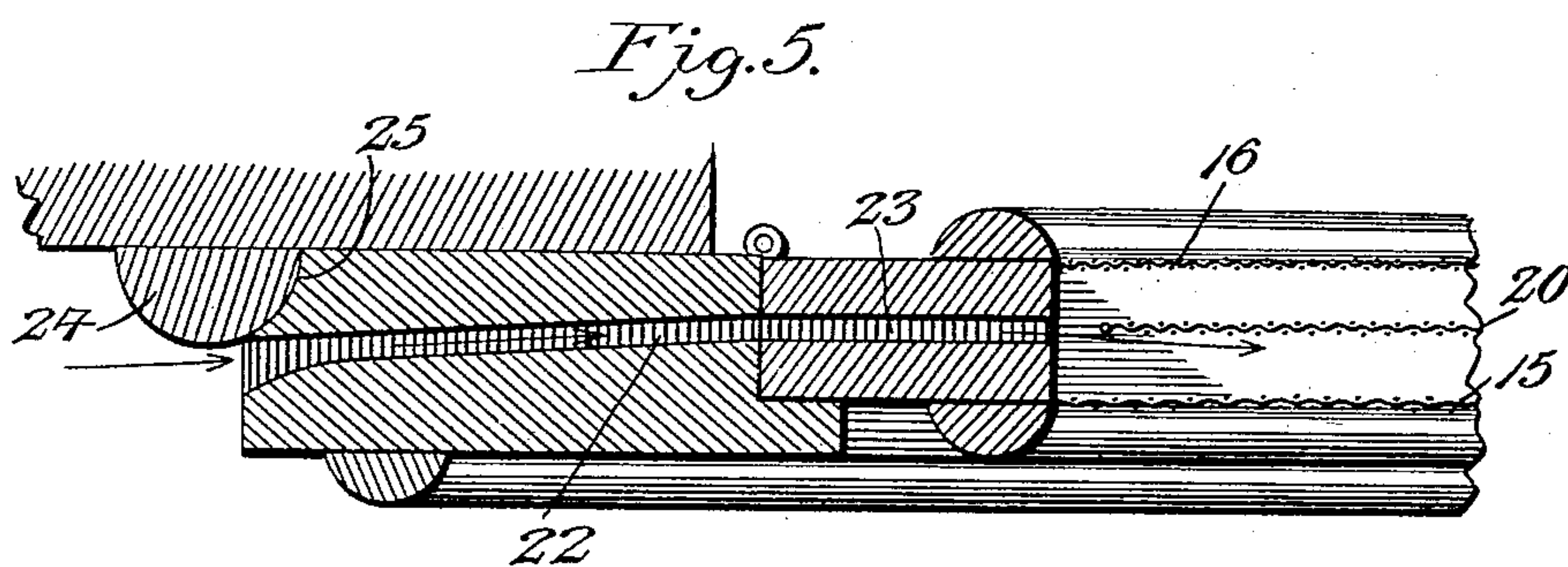
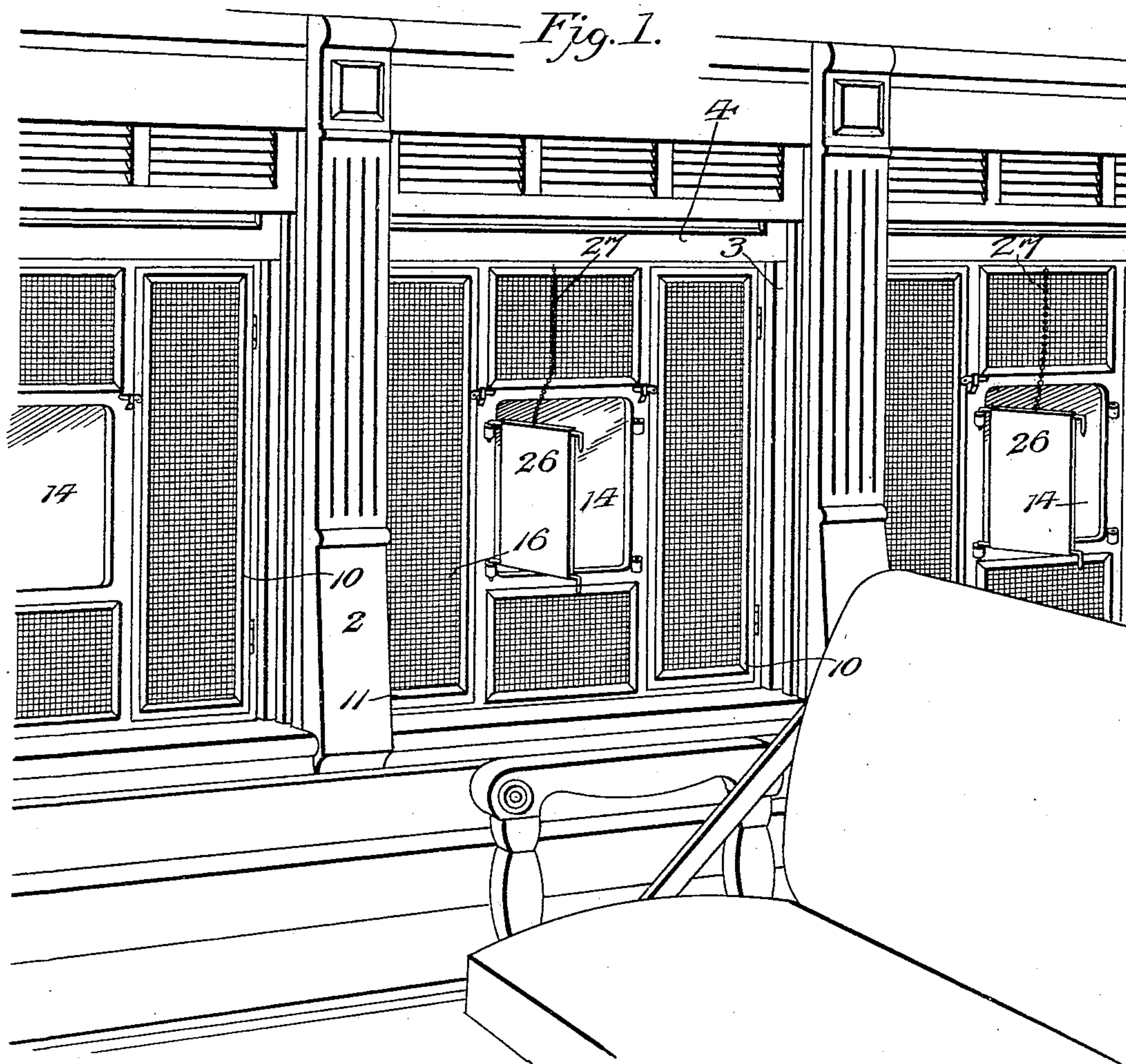
Patented Nov. 11, 1902.

J. STEWART.  
CAR WINDOW.

(Application filed Feb. 3, 1902.)

(No Model.)

2 Sheets—Sheet 1.



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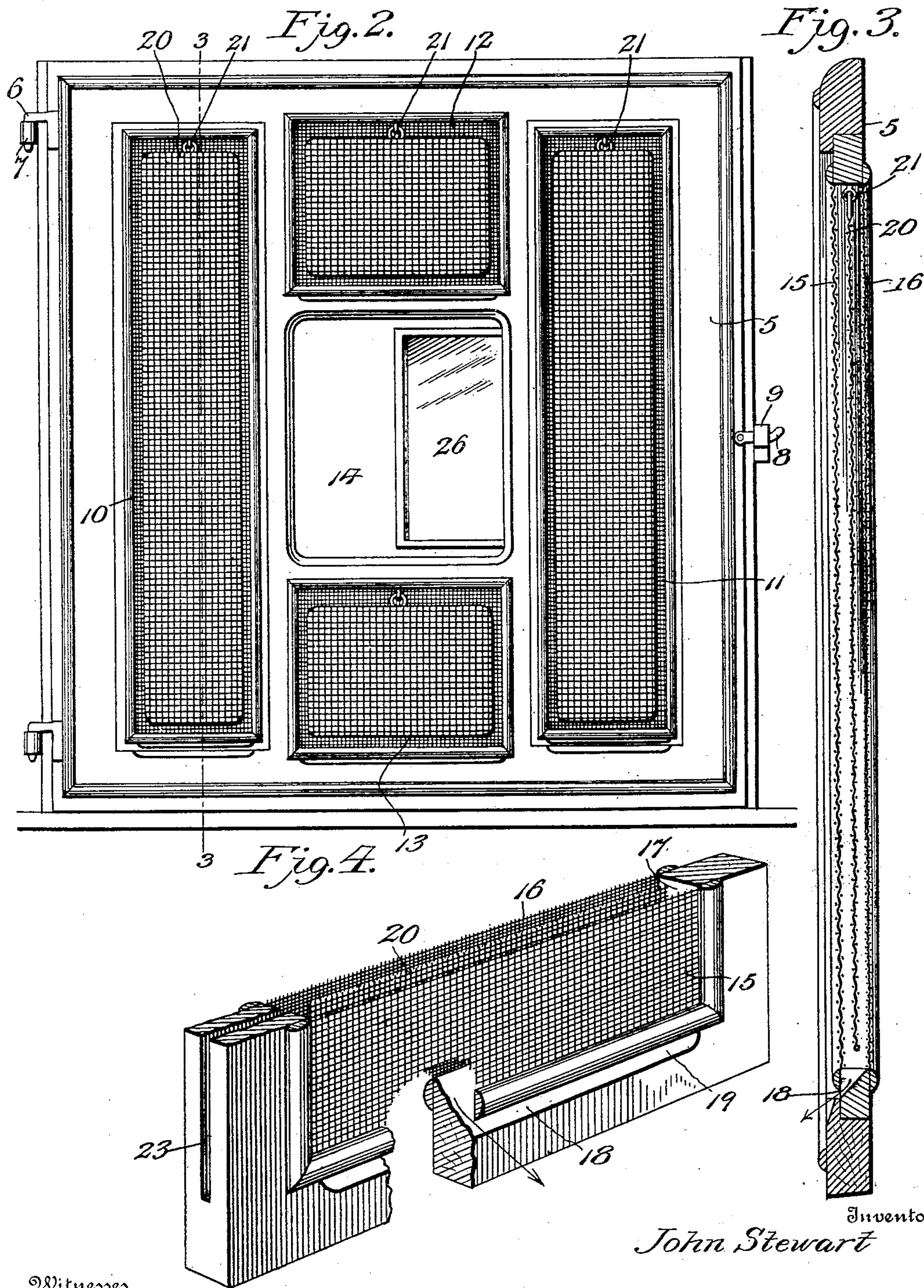
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2 Sheets—Sheet 2.



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# UNITED STATES PATENT OFFICE.

JOHN STEWART, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO WILLIAM E. MARSTELLER, OF PHILADELPHIA, PENNSYLVANIA.

## CAR-WINDOW.

SPECIFICATION forming part of Letters Patent No. 713,525, dated November 11, 1902.

Application filed February 3, 1902. Serial No. 92,452. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN STEWART, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented new and useful Improvements in Car-Windows, of which the following is a specification.

This invention relates to certain new and useful improvements in car-windows, and refers particularly to supplemental screen attachments for use in connection with such windows; and the primary object of the same is to provide a simple and effective organization of elements applicable to the ordinary car-window frames in addition to the usual glass windows to afford beneficial ventilation and at the same time exclude cinders and dust, so that passengers can have pure air without inconvenience to themselves and others in adjacent seats.

A further object of the invention is to provide a supplemental screen attachment for a car-window having means in connection therewith for insuring the settling of the cinders or dust to the bottom of the device and also provided with air ingress and exit features whereby the cinders or dust will be forced out of the attachment to avoid clogging the interstices of the screen material and permit a thorough ventilation of the car.

A further object of the invention is to provide a supplemental screen attachment for car-windows which has a transparent outlook at the center and surrounding reticulated members for ventilating purposes to prevent the entrance of cinders, dust, and the like into the car, and thereby permit a car-window to be fully opened without the inconvenience usually resulting from such arrangement.

With these and other objects and advantages in view the invention consists in the construction and arrangement of the several parts, which will be more fully hereinafter described and claimed.

In the drawings, Figure 1 is a perspective view of the interior portion of a car, showing the window-frame equipped with the improved supplemental screen attachment and the ordinary sash as raised. Fig. 2 is an outer side elevation of the improved attach-

ment shown in applied position. Fig. 3 is a transverse vertical section on the line 3-3, Fig. 2, on a larger scale. Fig. 4 is a sectional perspective view of the lower part of a portion of the attachment. Fig. 5 is a detail horizontal sectional view of a part of the attachment, showing the air-duct formed therein.

Similar numerals of reference are employed to indicate the corresponding parts in the several views.

The numeral 1 designates a car side of any preferred pattern or construction, having at regular intervals mullions 2 and window-frames 3 with ordinary glass window-sash 4. The improved supplemental screen attachment comprises a frame 5 of such dimensions as to snugly and completely inclose the window-frame and to extend slightly above the lower rail of the sash 4 when the latter is elevated to its full extent. The frame 5 is applied to the window-frame 3 outside the plane of but close to the sash 4 and at one side the said frame 5 and upper and lower hangers 6 to fit in correspondingly-positioned sockets 7, secured to the outer portion of the window-frame along one side of the latter or to adjacent parts of the outer surface of the car side. At the opposite side the frame 5 is provided with a central latch 8 to engage a striker 9, also secured to the outer portion of the window-frame or to an adjacent part of the outer surface of the car side. By this means the frame 5 and the parts carried thereby, which will be hereinafter specified, can be opened or moved outwardly from the car side or window-frame or readily applied or detached. The improved attachment can also be applied in some instances to the inside of the car-window. The frame 5 includes in its organization opposite vertically-extending screen-panels 10 and 11, upper and lower transverse screen-panels 12 and 13, and a central glass or transparent panel 14. Each of the panels 10, 11, 12, and 13 has an outer covering 15, of reticulated material or wire-gauze, and an inner covering 16 of similar material, an intervening space 17 being formed between the said coverings. The outer covering 15 is materially coarser than the inner covering 16, and said outer covering wards off larger cinders that strike there-against, and the smaller cinders which pass



through the interstices of said outer covering strike against the inner finer covering and are caused to be deposited at the bottom of the panel. The bottom wall 18 of each panel is inclined downwardly and outwardly to an outlet slot or opening 19, so that as soon as the cinders that pass into the space 17 between the inner and outer coverings 15 and 16 strike the lower wall they are reflected toward an exit through the slot or opening 19, and thereby the cinders or other accumulations are prevented from being retained or held in the bottom portions of the panels with obvious advantages. To assist in the deposit of the cinders passing through the outer covering 15 into the space 17 to gravitate or fall to the bottom of each panel, a cleaner is disposed within the space 17 and comprises a strip or piece 20, of reticulated material considerably less in dimensions than the space in which it is mounted and suspended at its upper end by an eye 21, so as to be free to vibrate in the space 17. The vibration of the cleaner is caused by the movement of the car, and said cleaner will operate to liberate or loosen the cinders that become fast in the interstices of the coverings, and thereby cause such cinders to be deposited at the bottom of the panel. Each one of the panels 10, 11, 12, and 13 is provided with this cleaning device, as clearly shown by Figs. 2, 3, and 4.

The panels 10 and 11 are hinged at one side and normally held closed by suitable catches, as shown by Fig. 1, so that they may be opened when the passenger desires to throw refuse outside of the car, or in some instances these panels may be opened for other purposes. These panels are arranged to open inwardly, so as to avoid the formation of exterior obstructions or projections along the outer surfaces of the car sides, and though this is a matter of considerable convenience it will be understood that the panels might be stationary.

As a means of ventilation the opposite side edges of the frame and the outer side members of the panels 10 and 11 are provided with air-ducts 22 and 23, which are in alinement and produced by slotting them, as clearly shown by Figs. 4 and 5. Between the window-frames on the outer surface of the car side curved moldings 24 are usually disposed, as shown by Fig. 5, and the inner corners of the opposite side edges of the frame 5 are cut away, as at 25, to snugly fit against the said moldings and to cause the entrances to the ducts 22 to be adjacent to the centers of the said moldings to insure a more effective inflow of the air through the ducts 22 and 23 and into the spaces 17. It will be understood that when the car is moving the air will be taken in through the side edge of the frame which is foremost, and as said air enters the space 17 of the adjacent panel it will not affect or discommode a passenger in the least if the air be laden with cinders, as the latter

cannot pass through the inner covering 16 into the interior of the car. This air-inlet construction, as before indicated, is common to both of the panels 10 and 11, and hence air will be admitted into the car at points where the supplemental attachments are located when the car moves in either direction. The inlet of the air through the panels 10 and 11 also insures a more thorough deposit of the cinders in the spaces 17 thereof at the bottom of said panel.

The improved attachment is also provided with a reflector 26, which is adapted to be hinged to either side of the inner portion of the panel 14 and is capable of adjustment to any angle. This reflector will show objects in rear of the passenger within the car or on the exterior of the latter and will provide a very pleasing as well as entertaining means for a traveler, as surrounding scenery and other objects will be brought into view of the passenger without requiring him to look out through the panel 14 to arrive at the same results. To prevent detachment and loss of the reflector, a flexible attaching device 27 is secured thereto and to a part of the attachment above.

From the foregoing it will be seen that a convenient attachment is provided particularly adapted for use in warm weather when it is desired to have the ordinary car-windows open and without endangering the garments of the occupant or occupants of a seat adjacent to such open window. To render the improved attachment applicable to different styles of car-window frames, it is obvious that changes in the proportions, dimensions, form, and minor details may be made without departing from the principle of the invention.

Having thus described the invention, what is claimed as new is—

1. A supplemental screen attachment for car-windows comprising panels with outer and inner reticulated coverings, and cleaners movably suspended in the said panels between the coverings.

2. A supplemental attachment for car-windows having panels with outer and inner reticulated coverings, the outer coverings being of coarser mesh than the inner ones, and a cleaner movably suspended to clean the said coverings.

3. A screen attachment for a car-window comprising a plurality of panels having outer and inner screen-coverings surrounding a central transparent panel, and means between the said outer and inner screen-coverings for cleaning the latter.

4. A screen attachment for car-windows comprising a series of panels with reticulated coverings surrounding a central transparent panel, and cleaners for the said reticulated coverings, the said panels having air-ingress openings for ventilating purposes.

5. A screen attachment for a car-window



having a central transparent panel, and a reflector hinged to the inner portion of either side of the said panel.

5 6. A screen attachment for car-windows comprising a series of fasteners having inner and outer reticulated coverings differing in mesh and each provided with downwardly and outwardly inclined walls at the bottom leading to elongated outlet-slots below the  
10 plane of the lower terminals of the covering, the said bottom walls being fully inclined from the inner covering to the outlet-slots to avoid the formation of retaining-shoulders and cause all the accumulated material be-  
15 tween the coverings to pass out through the said slots.

7. A screen attachment for car-windows

comprising a series of panels with outer and inner reticulated coverings with spaces between them, and a central transparent panel, 20 the side panels having air-inlet ducts, and cleaners suspended within the panels.

8. A screen attachment for car-windows, having side panels with inner and outer reticulated coverings differing in degree of 25 fineness of mesh, and air-inlet ducts at the outer ends of the opposite side panels, the inner sides of said panels being closed.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN STEWART.

Witnesses:

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