

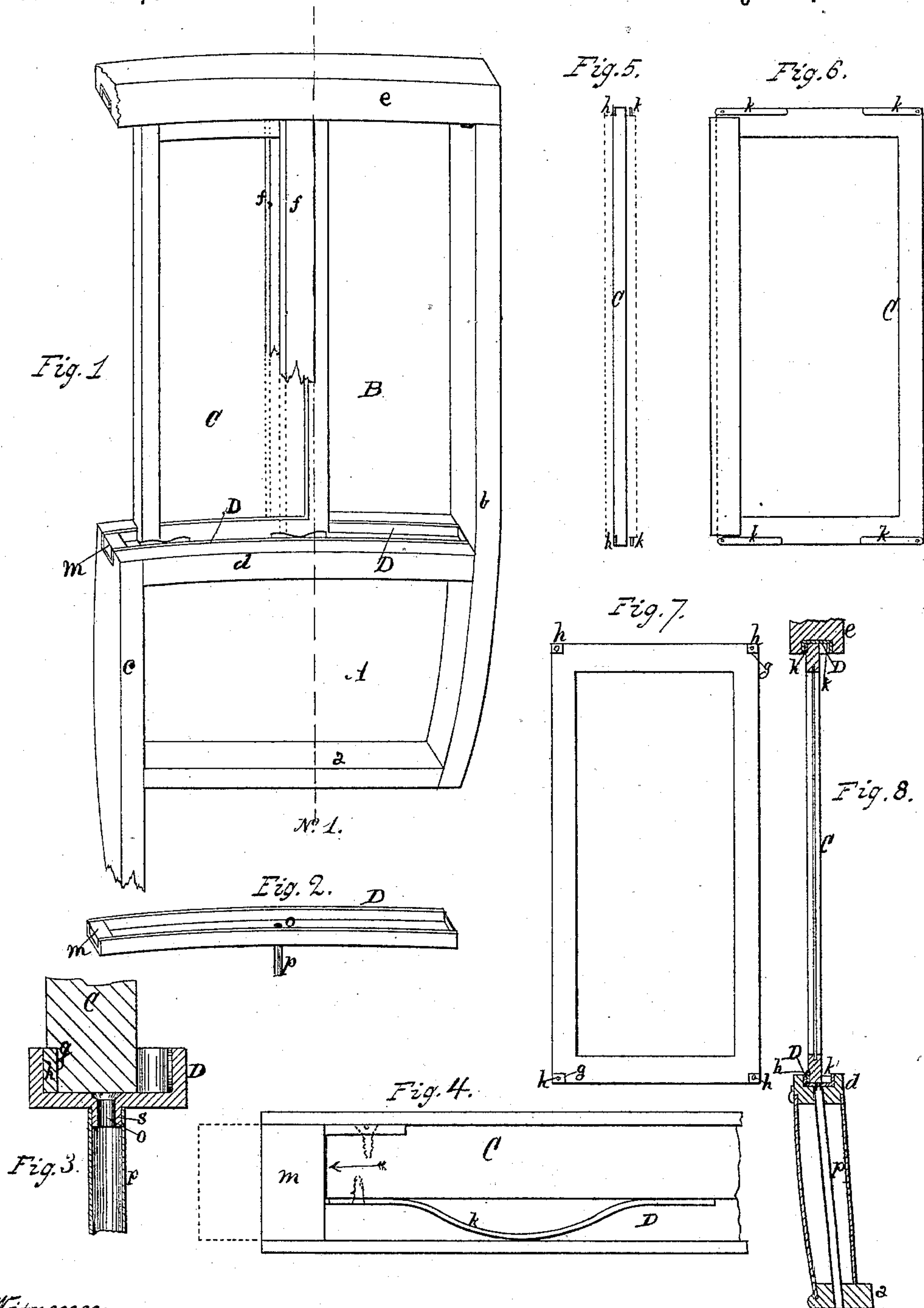
(No Model.)

J. C. GOOLD.

SLIDING WINDOW FOR COACHES.

No. 277,565.

Patented May 15, 1883.



Witnesses:

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SLIDING WINDOW FOR COACHES.

SPECIFICATION forming part of Letters Patent No. 277,565, dated May 15, 1883.

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To all whom it may concern:

Be it known that I, JOHN C. GOOLD, a citizen of the United States, and a resident of the city and county of Albany, and State of New York, have invented a new and useful Improvement in Horizontally-Sliding Windows for Coaches and other Vehicles, of which the following is a specification.

My invention relates to the side windows of coaches and other vehicles in which the windows, at their upper and lower ends, are held in recessed ways made in the frame-work of the body of the vehicle above and below the windows; and it consists in metallic ways which are tightly and securely fitted in the oppositely-facing sides of the belt-rail below and top rail above, and metallic wear-plates secured to the outer sides of the window-frame and at the corners thereof, and reacting springs, with metallic wearing-plates, projecting and secured to the inner side marginal lower and upper end bars of the window-frame, whereby the window-frame will be held pressed outward against the outer walls of the metallic way and firmly held, while at the same time it will be free to be moved horizontally in either direction; and also providing an escape water-pipe which will conduct water from the lower metallic way; and also further providing a removable metallic stop-block, which will form a means for closing and opening the outer end of the metallic way for entrance of the window-frame thereto and limiting its movement in one direction in said way.

The objects of my invention are to provide for horizontally-sliding windows means for holding the windows from rattling, which will be unaffected by water, and at the same time adapt the window-frame to be freely moved horizontally in either direction. I accomplish these objects by the means illustrated in the accompanying drawings, in which the same letters of reference indicate like parts throughout the several views.

Referring to the drawings, Figure 1 represents a perspective view from the inside of the rear (or front) end side of the body of the coach, and illustrates my invention. Fig. 2 is a perspective view of the metallic way detached from the framing-piece in which it is used.

Fig. 3 is a cross-sectional view of the metallic way, lower end of window-frame, with its metallic wear-plates and reacting-spring. Fig. 4 is a plan view of the same. Fig. 5 is a front (or rear) edge view of the window-frame. Fig. 6 is a view of the inner side of the window-frame. Fig. 7 is a view of the outer side of the same, and Fig. 8 is a vertical sectional view of the body of the coach, taken at line No. 1 in Fig. 1.

In the drawings, A represents the lower quarter-panel of the body of the vehicle. B is the upper quarter-panel. C is a horizontally-sliding window. *a* is the rocker. *b* is the back corner-pillar. *c* is the hinge-post of the door-way. *d* is the belt-rail. *e* is the top rail. *ff* are the front stop-bars, between which the body of the window-frame works, all of which parts are so well known that a particular description of the same is unnecessary.

Heretofore the ways in which the frame of the window moved were formed by recesses made in the upper side of the belt-rail *d* and lower side of the rail *e*, with a width greater than the thickness of the top and bottom bars of the frame, and these ways were required to be painted, as also the frame of the windows, and when the windows were moved in either direction the painted surfaces would be made to rub one against the other; and to insure an easy movement of the windows for opening and closing the same the ways were required to be so much wider than the thickness of the end bars of the frame that the latter would rattle, while at the same time the lower way would receive and hold water, which would be splashed out, to the annoyance of the occupants of the vehicle, and which water, also in time, would seriously affect the wood-work of the frame and lower quarter-panel and cause the same to rot, and also affect the wood of the window-frame, all of which effects my invention is intended to obviate.

In my improvements I employ a recessed metallic way, D, made preferably of brass, bronze, German silver, or equivalent metal or alloy which will not readily oxidize. This metallic way is made with comparatively heavy side and bottom wall, so as not to be readily bent out of form, and is made with a width in the

clear between the side walls about one inch and with a depth of about three-eighths of an inch, as shown in Figs. 3 and 4. The sides of said metallic way are made vertical, parallel, and smoothly finished on their inner sides, and the surface of the bottom of the recess is also evenly and smoothly finished. These metallic ways are set into recessed seats made in the wood of belt-rail *d* from its upper side, and in the top rail, *e*, from its lower side, and are preferably cemented therein by cement made of white-lead and varnish. These ways are made with a length sufficient to permit the full length of movement required for opening and closing the window. A nipple, *s*, is made with the lower side of metallic way *D* in the belt-rail *d* at about the middle of its length, and the bottom of this way and its nipple *s* is pierced with a hole, *o*, preferably countersunk from above. A small pipe, *p*, is connected with nipple *s*, and is passed down from the same through a nicely-fitting hole made in said belt-rail, and thence down between the lower quarter-panel, *A*, and its lining-board inside, and through a hole in rocker *a*. Through this hole *o* and pipe *p* the water received into the trough of metallic way *D* will be carried down and away as fast as it may enter the same.

Shallow recesses *g* are made in the outer side of the frame of window *C*, at its corners, and set therein are metal wear-plates *h*, Figs. 3 and 7, the outer side surface of which wear-plates are made to project slightly beyond the plane of the outer surface of the window-frame, as shown in Fig. 3. The vertical extension of said wear-plates is made about equal to the depth of the inner sides of the side walls of metallic way *D*, as shown. Secured to the opposite side of frame of window *C* are springs *k*, Figs. 1, 4, and 6. The said springs are preferably made bow-shaped, with a width about equal to the vertical extension of the inner side surface of the wall of metallic way *D* it is to press against, and it is secured at one of its ends to the end bar of the frame by a screw, as shown. These springs are employed one at each corner, both above and below, as shown in Fig. 6, and the inner ends are free, while their bows are made to press against the inner surfaces of the inner wall of way *D*, as shown in Fig. 4.

A metallic block, *m*, Figs. 1, 2, and 4, having a length and depth corresponding with the width and depth of metallic way *D*, and with a width of about half an inch, more or less, is used. This block operates as a stop and fits snugly into the extreme end of said way, and is to be removed by force employed from its

inner side in direction of arrow, Fig. 4, when the window is to be inserted into the said way or removed therefrom. When the window is placed in position for permanent occupancy a little varnish and white-lead, or varnish only, on the ends of said stop-block will operate as cement to hold the same secure and make a water-tight joint between it and the sides of the way. A heated iron against the bottom of the way at the block will loosen the cement and permit the easy removal of the said block when required.

In operation the metallic way *D* in belt-rail *d* serves as a water-tight way, preventing water entering or affecting the wood of the body of the coach, while its uniformly even and smooth surface of sides and bottom, being free from paint, offers but little resistance and wear, while the wear-plates *h*, projecting slightly out beyond the plane of the outer surface of the end bars of the window-frame, prevent the frame from being worn away both at the sides and bottom edges of the same, and the end bars of the frame will have a near situation to the outer side wall of the metallic way without being abraded, the springs *k* on the inner side of the frame operating as wear-plates also, and to press the frame against the outer side walls of said ways and hold the frame from rattling. The perforation *o* and pipe *p* operate as a conductor to lead water entering the way down therefrom.

These improvements are applicable for use in vehicles of the style of the "clarence," "coupé," "coacher," or "rockaway," as well as coaches.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a coach or similar class of vehicle, the combination, with belt-rail *d*, (or top rail, *e*, or both,) provided with metallic way *D*, of a horizontally-moving window, *C*, having its frame provided with wear-plates *h* and springs *k*, all arranged for operation substantially as set forth.

2. In a coach or similar class of vehicle, the combination, with horizontal ways *D* and window-frame *C*, adapted to be held and moved within said way, and provided with wear-plates *h* and springs *k*, of orifice *o*, made in the bottom of said way, and pipe *p*, leading from said orifice downward, all arranged substantially as and for the purposes set forth.

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