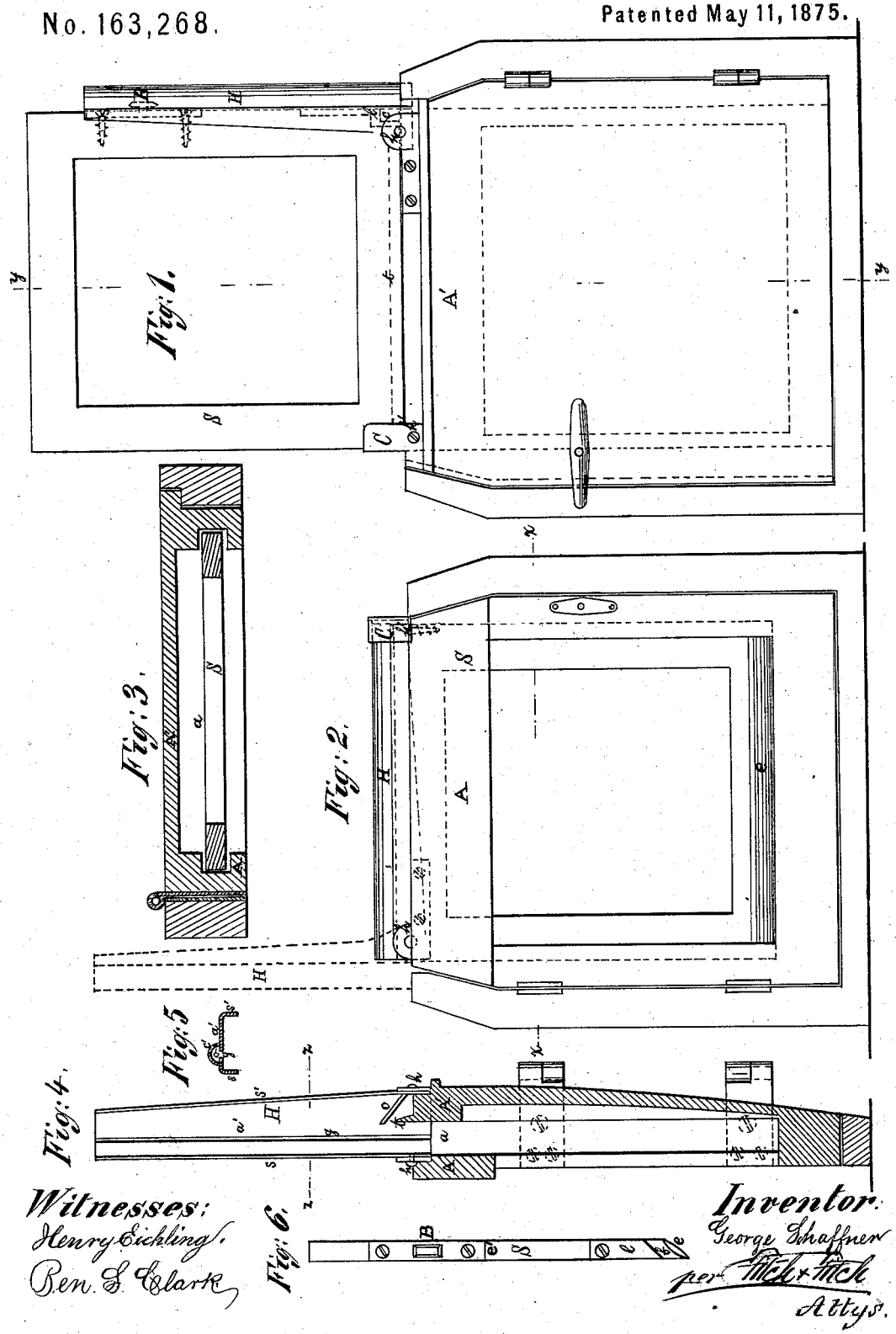
# G. SCHAFFNER.
## Carriage-Door.

No. 163,268. Patented May 11, 1875.

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# UNITED STATES PATENT OFFICE.

GEORGE SCHAFFNER, OF TROY, NEW YORK.

## IMPROVEMENT IN CARRIAGE-DOORS.

Specification forming part of Letters Patent No. **163,268**, dated May 11, 1875; application filed March 31, 1875.

*To all whom it may concern:*

Be it known that I, GEORGE SCHAFFNER, of the city of Troy, county of Rensselaer and State of New York, have invented an Improved Landau-Door Fixture, of which the following is a specification, reference being had to the accompanying drawings forming part hereof.

My invention consists in the combination, with the half-door of a double-top barouche or landau, constructed to be arranged either as an open or closed carriage, of a sash arranged to slide up and down between the inner and outer panels of the door, provided with a slide-button fixed upon one edge of the sash, somewhat above the center, and a beveled grooved latch-piece fixed upon the same edge, at the lower corner of the sash, which slide-button is arranged to engage with a lipped groove extending the whole length of a single sash-holder, which is hinged to the top of the door at one corner thereof, and which said latch-piece is arranged to engage with a catch fixed in said sash-holder near its lower end, together with a clasp or brace secured upon the top of the door at the other corner thereof, whereby, when it is desired to arrange the vehicle as an open carriage, the sash may be lowered between the panels of the door, and the sash-holder folded down upon the top of the panels, its upper end being fitted into the clasp or brace, thus forming a half-door with a finished top; and when it is desired to arrange the vehicle as a closed carriage the sash-holder may be raised to an upright position and the sash elevated to form a full door, and the sash be held firmly in place upon the top of the outer panel of the half-door.

Figure 1 is a front elevation of a carriage-door embodying my invention, showing the sash elevated and held in position to form a full door. Fig. 2 is a rear elevation of the same, showing the sash lowered and the sash-holder folded down upon the top of the half-door. Fig. 3 is a sectional view of the same on the line *x x*, Fig. 2. Fig. 4 is a side elevation of the same, partly in section, on the line *y y*, Fig. 1. Fig. 5 is a sectional view of the sash-holder on the line *z z*, Fig. 4; and Fig. 6 is an edge view of the sash, showing the arrangement of the slide-button and beveled grooved latch-piece.

A and A′ are the inner and outer panels, respectively, of a carriage-door, having the space *a* between them, as shown, the upper side of the outer panel A′ being formed with the beveled projection or tongue-piece *t* along the inner edge thereof. S is the sash, formed with the lower beveled edge *e*, and having the slide-button B fixed upon its edge *e′*, a little above the center thereof, as shown, and the latch-piece *l* secured upon the edge *e′*, at the lower corner of the sash, as shown, and formed with the groove *b*, extending diagonally across the edge of the sash. H is the sash-holder, hinged upon the top of the half-door at *h*, and extending across the opening *a*, between the panels A and A′, and formed with the straight side *s*, and the side *s′* inclined somewhat inward from its lower to its upper end, as shown, and having the lipped groove *g* formed by a slit or opening, *o*, extending the entire length of the side *a′*, and the curved cap-piece *c′* fixed upon the top or outer surface of the side *a′*, over the line of the slit or opening *o*, as shown. *c* is the catch fixed upon the inner surface of the sash-holder H, near the lower end thereof, extending from the side *s′* diagonally upward a short distance on the side *a′*, as shown. C is the clasp or brace secured upon and extending across the top of the half-door at *h′*, as shown. Now, it is evident that when it is desired to form a half-door to the landau arranged as an open carriage, the sash S may be lowered between the panels A and A′, and the sash-holder H folded down upon the top of the panels, and closing over the opening or space *a*, the upper end of the sash-holder being adjusted within the clasp C, as shown in Fig. 2. A half-door is thus formed with a closed and finished top, while the clasp C operates to prevent the sash-holder from being strained or otherwise injured at its hinge *h* by pushing the door open or pulling it shut by means of force applied at the upper edge of the door.

It is also evident that when it is desired to form a full door to the landau, arranged as a closed carriage, the sash-holder H may be raised to an upright position, and the sash S elevated, the slide-button B engaging in the lipped groove *g* in the sash-holder, and operating to hold the sash in place and guide it during its ascent; and that when the sash is

elevated sufficiently for the lower beveled edge *e* to pass over the projection or tongue *t* upon the front panel A′, the sash may be pressed outward at its lower end and dropped downward until it rests upon the top of the panel A′, the catch *c* engaging with the groove *b* in the latch-piece *l*, the sash being thus sustained and held in position to form the upper half of the full door, by the operation of the slide-button B engaged in the lipped groove *g* in the sash-holder H on one side, and the clasp or brace C on the other side, and the catch *c* engaged with the groove *b* in the latch-piece *l*, as shown in Fig. 1.

I am aware that a half-door for a landau, constructed to be arranged either as a closed or open carriage, has been made with a space between the inner and outer panels, in which a sash is arranged to slide, and which has two short sash-holders hinged upon the top of the door, one at either side, said sash-holders being provided with leaf-springs secured on their inner sides, operating to sustain and hold the sash by pressure upon its edges at each side, when the sash is raised to form the upper half of a full door. I am also aware that a door for a similar vehicle has been made with double panels in its lower half, and a sash arranged to slide between them, and with a hinge-joint extending laterally across the body of the door, so that the upper half of the door may be folded inward and down against the lower half, to form a half-door for an open carriage.

I do not claim either or any of these inventions, intending to limit my claim to the combination, in a carriage-door, of the specific parts and devices herein particularly described —that is to say, the single sash-holder H, hinged upon the top of the half-door at *h*, and having the lipped groove *g* extending its whole length, and the catch *c* fixed on the inside of the sash-holder near its lower end, together with the slide-button B and beveled grooved latch-piece *l*, fixed on the sash S, and the clasp or brace C, secured upon the top of the half-door at *h′*.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination, in the half-door of a landau, either in an open or closed carriage, of the panels A and A′, the space *a*, the sash S, with its lower beveled edge *e*, and provided with the slide-button B and beveled grooved latch-piece *l*, the single sash-holder H, with its lipped groove *g* and catch *c*, hinged upon the top of the panels of the door at *h*, and the clasp or brace C, fixed upon the top of the half-door at *h′*, as and for the purpose described.

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