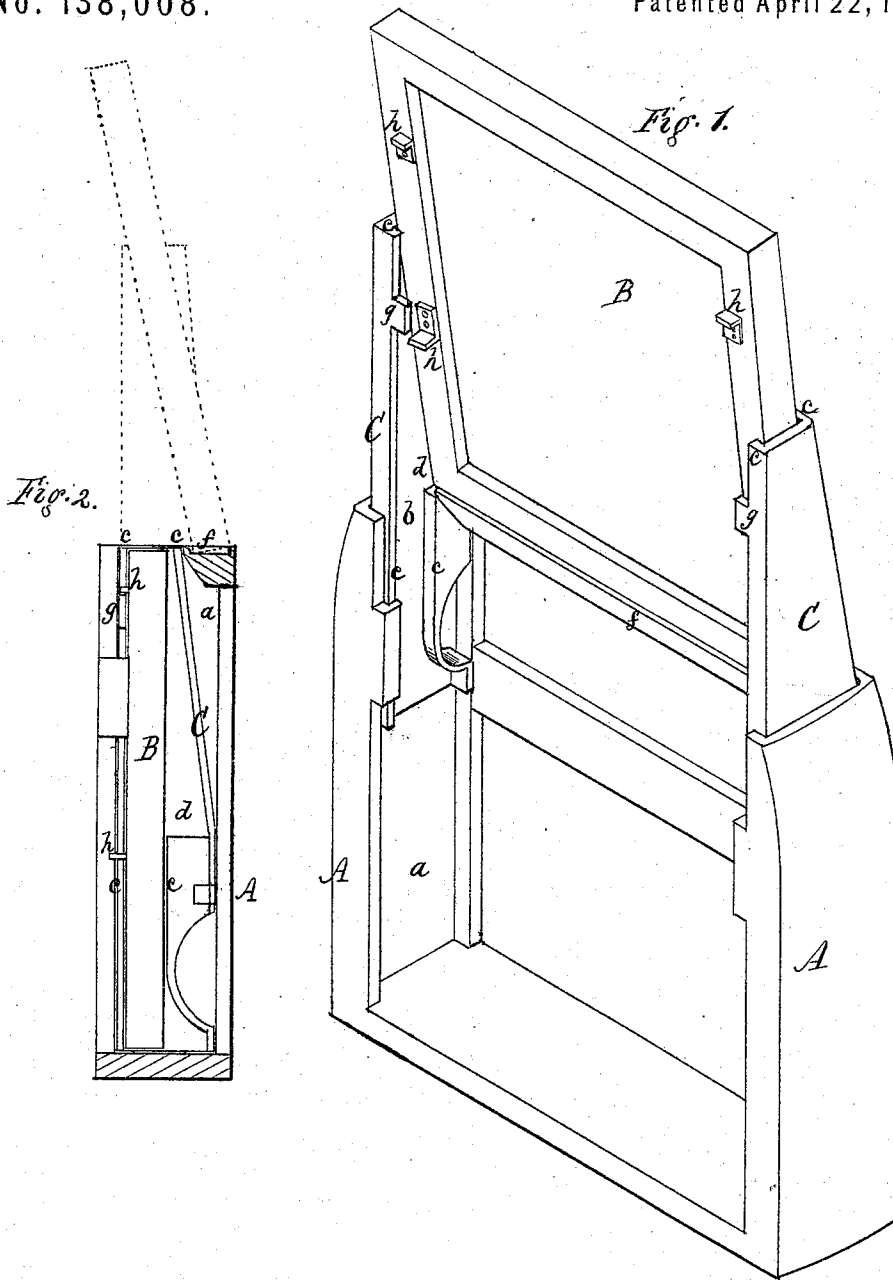


**J. CUNNINGHAM.**  
**Carriage Doors.**

No. 138,008.

Patented April 22, 1873.



Witnesses.  
Arch<sup>d</sup> Barne  
W<sup>m</sup> J. Moore

Inventor.  
Jas. Cunningham.  
By Burke, Frons & Ogden,  
attys.

# UNITED STATES PATENT OFFICE.

JAMES CUNNINGHAM, OF ROCHESTER, NEW YORK.

## IMPROVEMENT IN CARRIAGE-DOORS.

Specification forming part of Letters Patent No. 138,008, dated April 22, 1873; application filed August 11, 1871.

*To all whom it may concern:*

Be it known that I, JAMES CUNNINGHAM, of the city of Rochester, in the county of Monroe and State of New York, have invented a certain new and useful Improvement in the Doors of Landau-Carriages, of which the following is a specification:

### *Nature of the Invention.*

My invention consists in combining, with the door and sash of a landau-carriage, slides which hold the sash, and are raised automatically by said sash from the interior of the door, as hereinafter described.

### *General Description.*

In the drawing, Figure 1 is a perspective view of the door with the sash and slides elevated; Fig. 2, a vertical section of the same with the sash and slides folded or depressed within the door.

A represents the door; B, the sash; and C C, the slides. The door is of the usual form, and hinged to the carriage to open in the usual way. It is made hollow with metallic-lined grooves or ways *a a* at each side for the slides to move up and down in. The slides are also similarly grooved, as shown at *b b*, for the sash to move up and down in. The sash rests between the bearings *c c* at the top and bottom, in order to keep its proper vertical position when let down; but between these bearings is an offset, *d*, in the slides, which allows the lower end of the sash to be thrown out when elevated, so that it will strike into the seat *f* at the top of the door to be held elevated, as indicated in Fig. 1, and the dotted lines, Fig. 2. The slides are provided with lugs *g g*, and the sash with double stops *h h*, which are so relatively located that in elevating, as soon as the bottom of the sash reaches the offset *d* the lower stops strike the lugs *g* and draw the slides up with the sash; and in depressing or letting down, as soon as the sash is fully lowered in the slides the upper stops strike the lugs and carry the slides down with the sash. This will be fully understood by an inspection of the drawing.

There are two features of novelty in this invention: First, the location and relative arrangement of the slides and the sash in the door; and, second, the special construction of the slides themselves.

It will be noticed that a double sliding action is produced, viz: That of the sash in the slides, and that of the slides in the door; and that the action is automatic, the slides being elevated and depressed by the action of the sash. The whole also folds compactly down into the body of the door, and is removed from sight when the window is open. This is far preferable to those devices where hinged and folding ways are used, which fold or turn down over the top of the sash when lowered.

The novelty in the construction of the sash consists in the bearings *c c*, which keep the sash in place when depressed, and the offset *d*, which allows it to be thrown out when elevated, so that it can rest in the seat prepared for it in the door.

### *Claims.*

I do not claim, simply, the use of a sash or ways and guides for the same in a carriage-door; but

I claim as my invention—

1. The separate slides C C, combined with the sash B and door A, as herein described, said slides being operated automatically by the sash itself in raising or lowering, and the whole folding compactly with the body of the door, as specified.

2. The slides C C constructed with the bearings *c c* for holding the sash in a vertical position when lowered, and with the offset *d* to allow the sash to be set at an angular position when raised, as herein described.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

JAMES CUNNINGHAM.

Witnesses:

R. F. OSGOOD,  
ARCHD. BAINE.