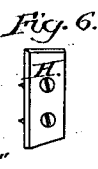
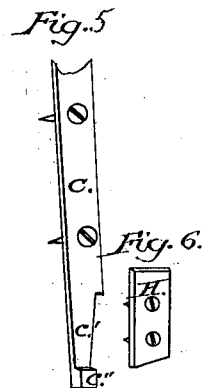
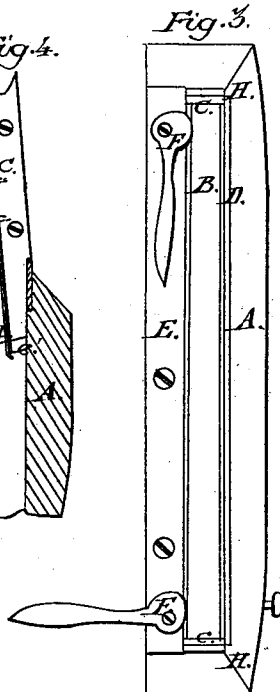
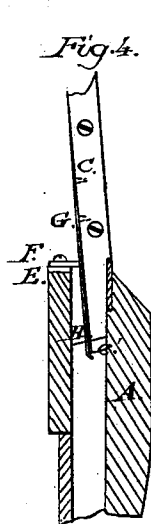
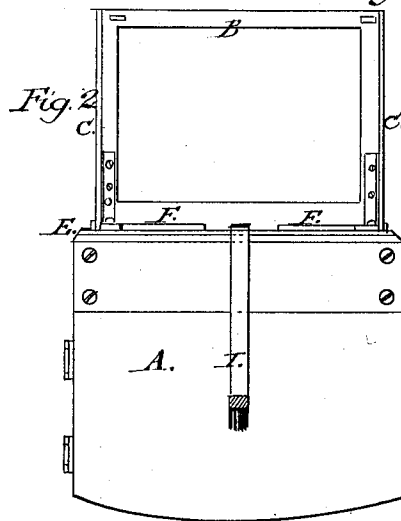
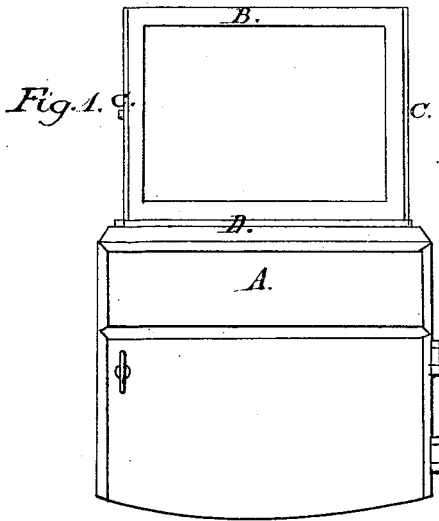


W. Stewart,

Sash Holder.

No. 89604.

Patented May 4, 1869.



Witnesses:  
Frederick Oberti  
Wm Westphal

Inventor:  
William Stewart.

# United States Patent Office.

WILLIAM STEWART, OF HARTFORD, CONNECTICUT.

Letters Patent No. 89,604, dated May 4, 1869.

## IMPROVEMENT IN CARRIAGE-SASH FASTENER AND SUPPORTER

The Schedule referred to in these Letters Patent and making part of the same.

### To all whom it may concern:

Be it known that I, WILLIAM STEWART, of the city and county of Hartford, State of Connecticut, have invented a new and improved Method in Fastening the Sash of Carriage-Windows; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and letters of reference marked thereon.

The nature of my invention consists in constructing a fastener for the sash of carriage-windows, by which the sash is supported at the bottom and held up without the use of a frame.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

Figure 1, front view of sash and door.

Figure 2, back view of sash and door.

Figure 3, top view of sash and door.

Figure 4, section of same.

Figure 5, view of guide and catch.

Figure 6, view of stop.

The door A, I make in the usual form, with a space between its outer and inner sides to allow the sash B to move in freely up and down.

O C are strips of iron, which I term guides; the edges of these guides projecting from the sides of the sash B, and bearing between the side of the plate D, which is screwed on to the inside of the outside part of the door A, and the edge of the plate E that is screwed on to the top of the inside part.

F F are cams attached on top of plate E, and are made to bear against the springs G G, that are fastened to the inside of the sash B, near the lower edge. The lower edge of the sash B and guides C C, on the outside, have a recess *c* made for the sash B to catch on to the top of plate D, when it is drawn up to its required height. This recess is bevelled toward the lower edge of the sash B, to allow the top of the sash to incline inward.

H H are stops to prevent the sash B being drawn

up too far, and are screwed to the inside edges of the space in the door near the top, in which the sash slides. The lower ends of the stops are bevelled toward the outside of the door; that the projection *c* on the lower end of the guides may catch into them and throw the lower edge of the sash outward.

I is a strap fastened to the lower edge of the sash in the usual way, and by which the sash can be raised or lowered.

The operation is as follows:

By taking hold of the strap the sash is raised as high as the stops will permit; the spring throws the recess in the sash over the edge of the plate D, which holds the sash from dropping; the cams are then closed on to the springs, which secures the sash perfectly.

A great advantage is gained by this improvement in supporting the sash at the bottom, by its having no frame or support above the door, and can be used in a close or open carriage.

When a sash-frame is made on the door, it remains standing where the top which is separated in the centre over the door, is let back each way front and back, to form an open carriage. When the sash-frame is made in the sides of the top, the sash would have to be let down before opening the door, when the carriage was used as a close one; but in this improvement, where the sash is supported at the bottom and the carriage used as a close one, the door can be opened without dropping the sash, and when used as an open one there is no frame standing.

Another advantage is, the guides C C, which are fastened to the edge of the sash, prevent the sash being worn when raised or lowered.

I claim the cams F F, springs G G, stops H H, guides C C, when arranged and used for supporting the sash of carriage-windows as herein described.

WILLIAM STEWART.

Witnesses:

FREDERICK EBERLE,  
WM. WESTPHAL.