

(No Model.)

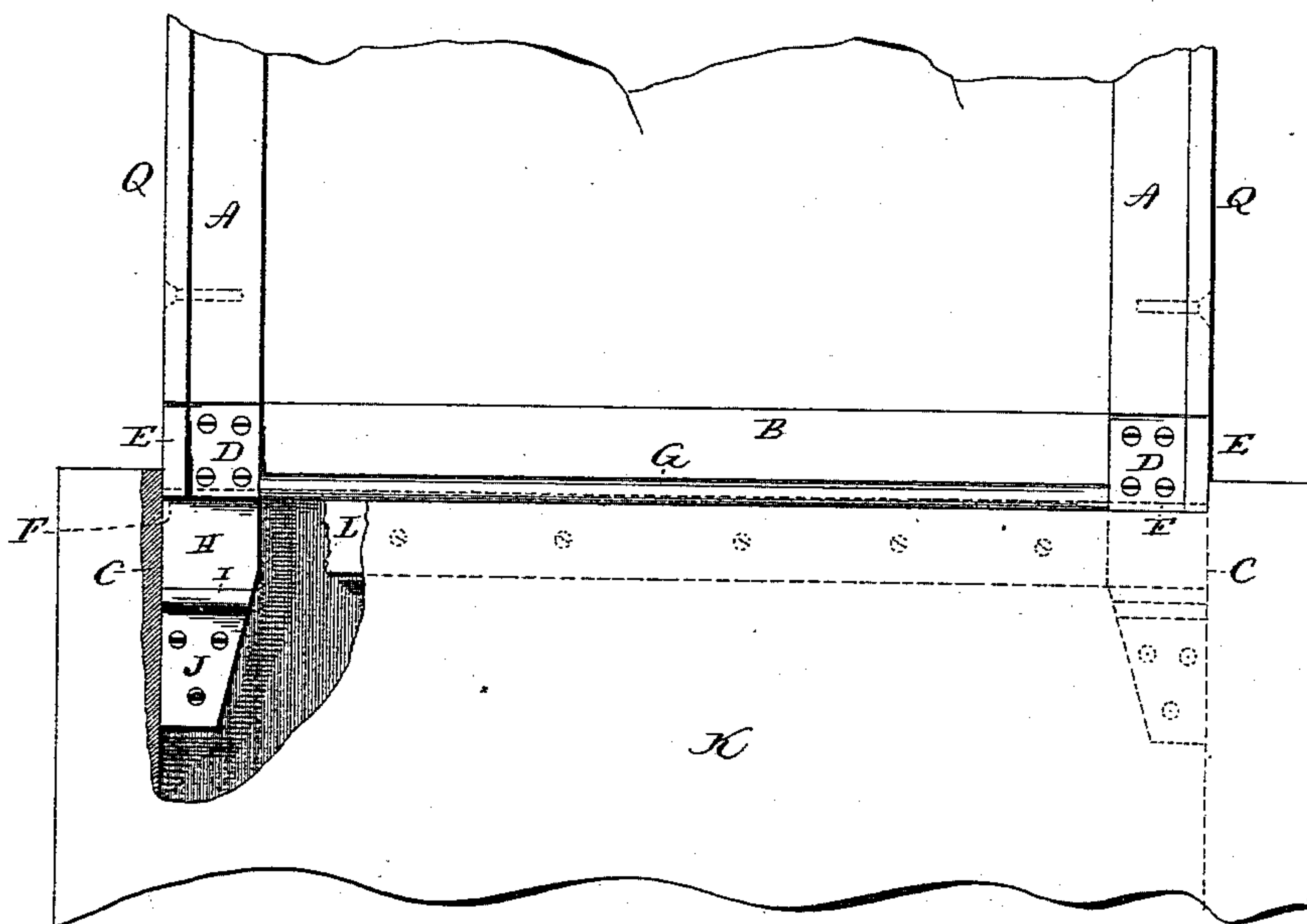
2 Sheets—Sheet 1.

H. LINES & H. G. BRONSON.
WINDOW FOR CARRIAGE DOORS.

No. 420,205.

Patented Jan. 28, 1890.

FIG. 1



Witnesses.
J. H. Shumway.
Fred C. Baile.

Henry Lines
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By *any* Geo. D. Seymour. Inventors

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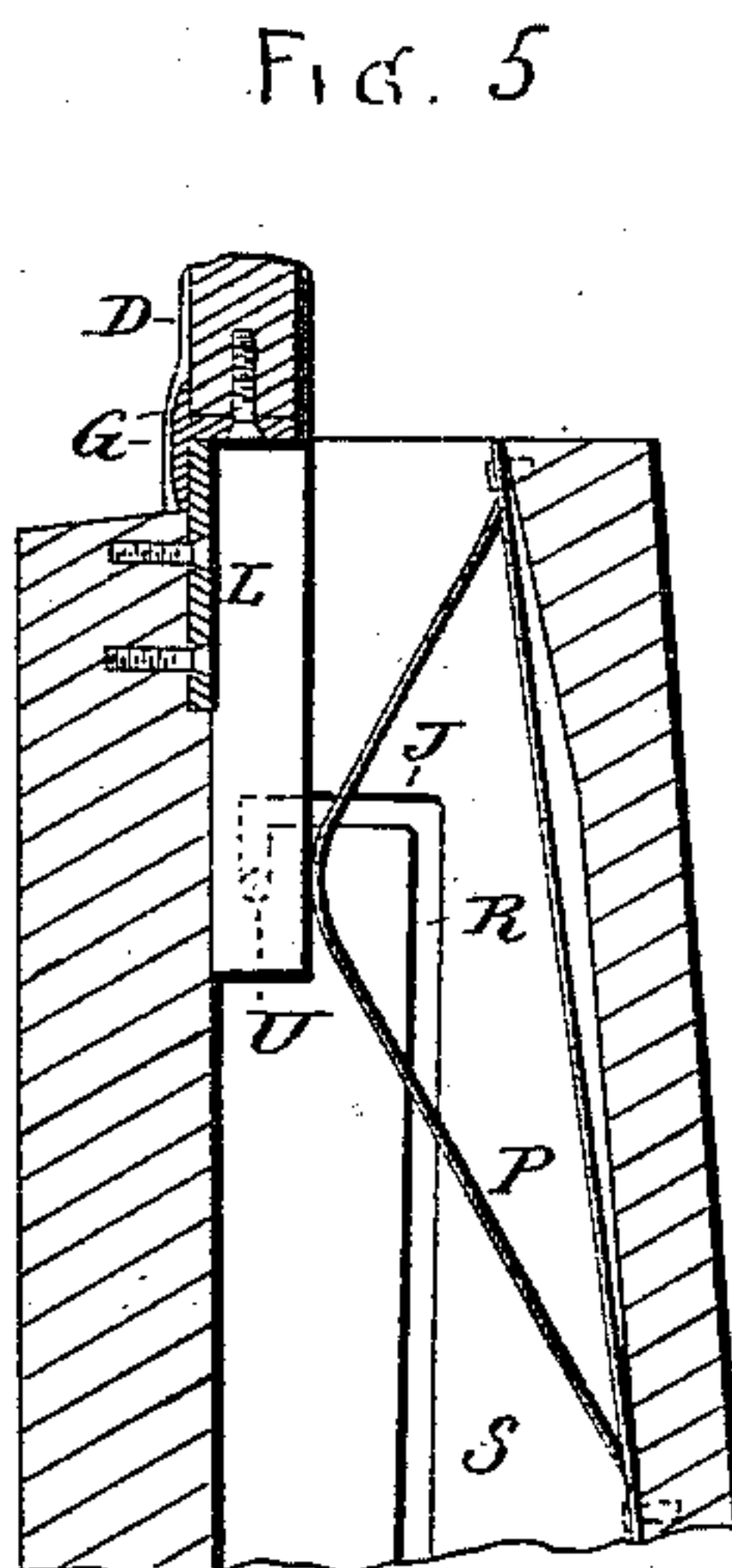
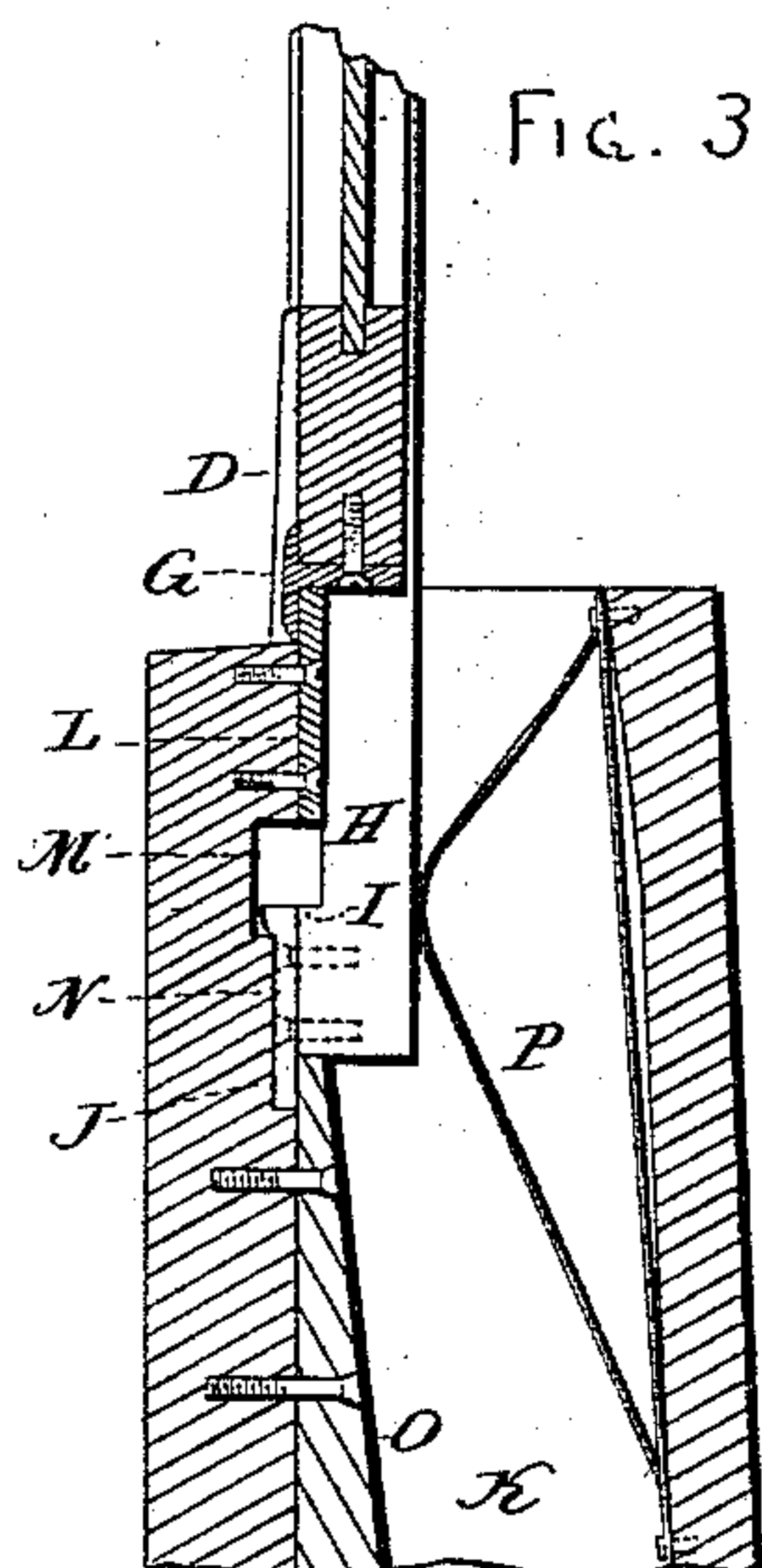
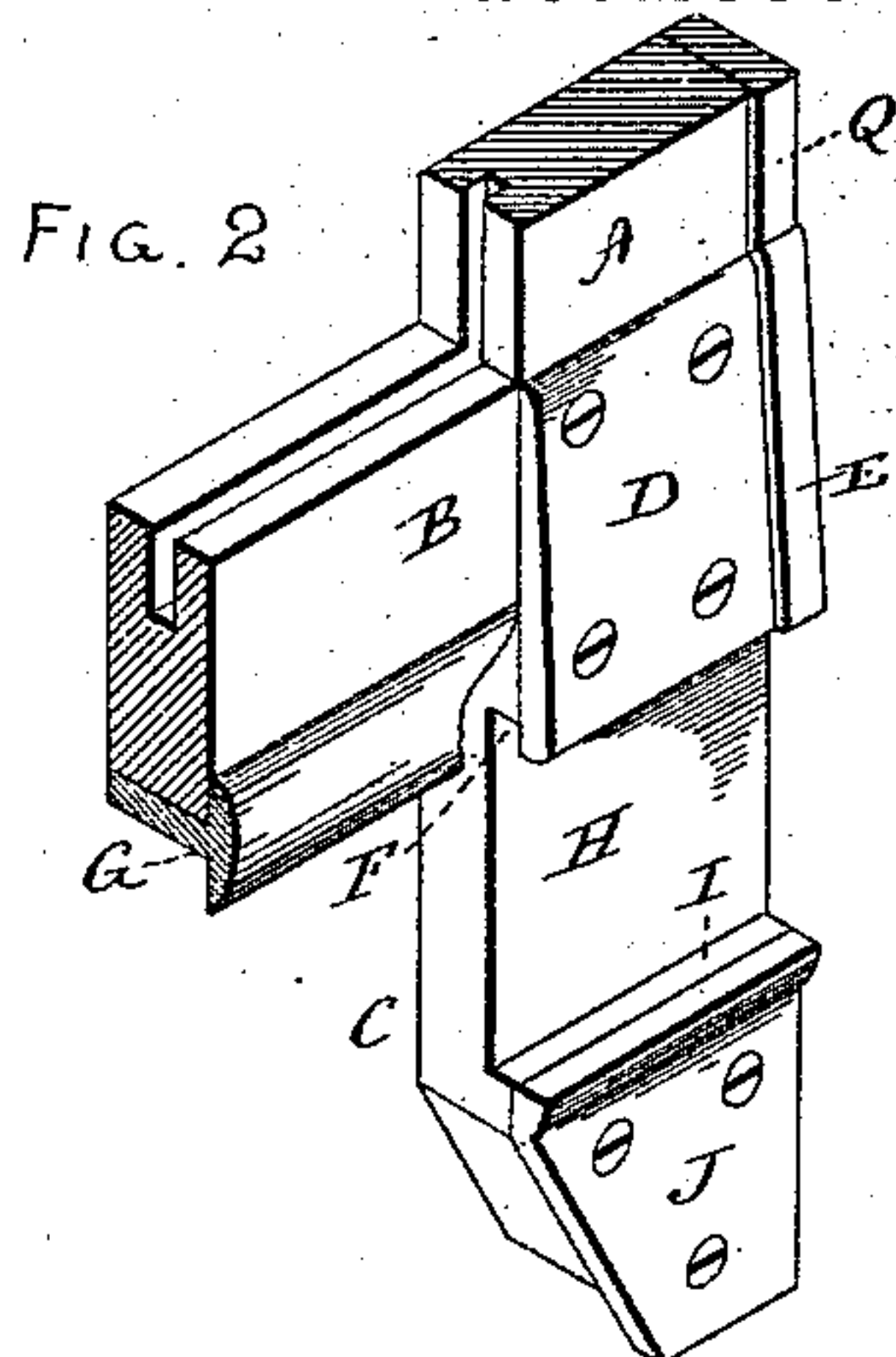
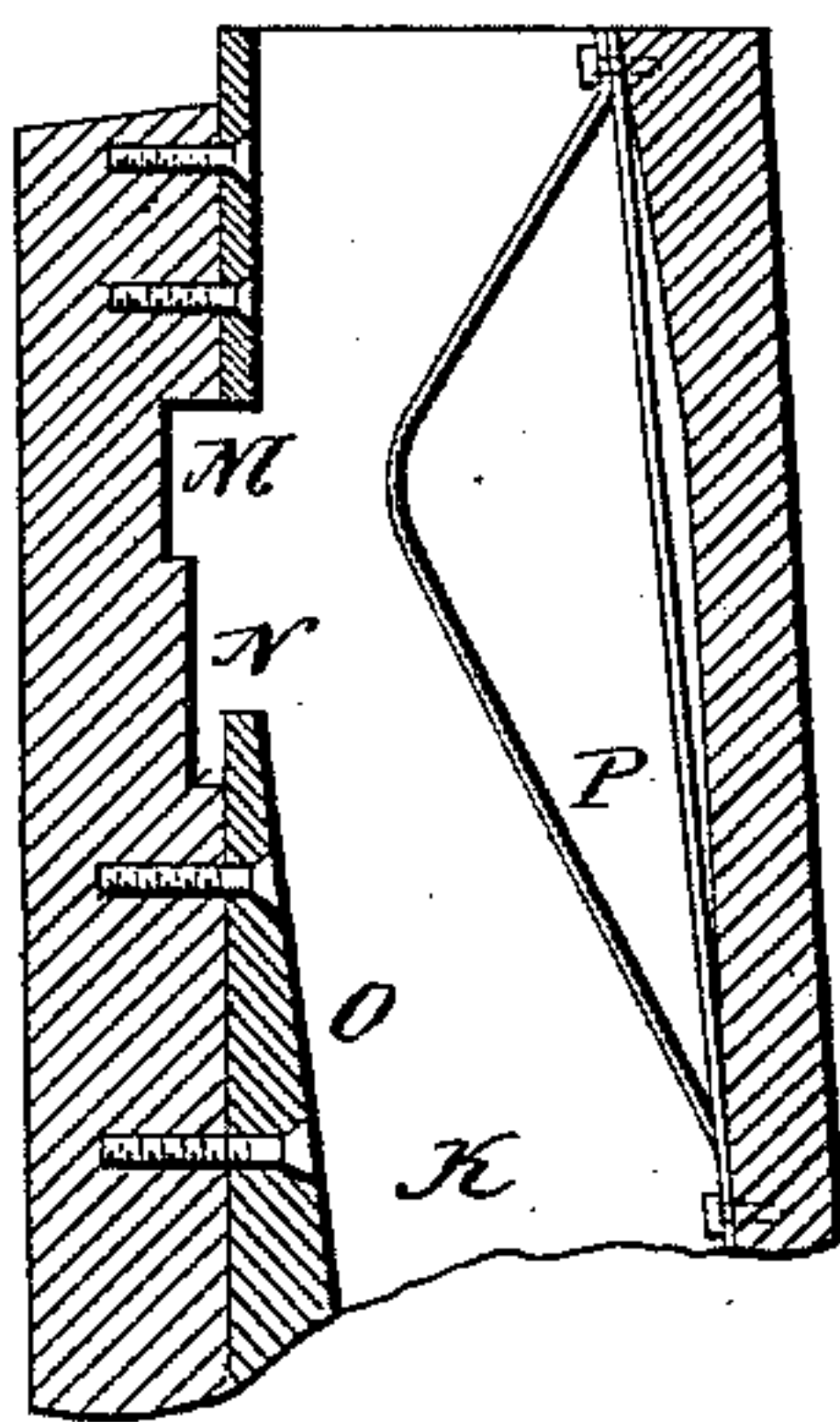


FIG. 4



WITNESSES:

J. K. Shumway
Fred C. Carter

Henry Lines
and Horatio G. Bronson
INVENTORS

By atty. George Seymour.

UNITED STATES PATENT OFFICE.

HENRY LINES AND HORATIO G. BRONSON, OF NEW HAVEN, CONNECTICUT,
ASSIGNORS TO KEAN & LINES, OF SAME PLACE.

WINDOW FOR CARRIAGE-DOORS.

SPECIFICATION forming part of Letters Patent No. 420,205, dated January 28, 1890.

Application filed October 24, 1889. Serial No. 327,990. (No model.)

To all whom it may concern:

Be it known that we, HENRY LINES and HORATIO G. BRONSON, both residing at New Haven, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Carriage-Door Windows; and we do declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to an improvement in devices for securing the sashes of carriage-door windows in their raised positions, the object being to provide simple and effective means for this purpose.

With these ends in view our invention consists in certain details of construction and combination of parts, as will be hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a broken view in front elevation of a carriage-door with its sash in its raised and locked position. Fig. 2 is an enlarged broken view in perspective showing one of the lower corners of the sash and the locking-leg depending therefrom. Fig. 3 is a view in vertical section through the sash and the box-frame of the door, showing the sash in its raised and locked position. Fig. 4 is a similar view with the sash removed, and Fig. 5 is a sectional view of one of the modified forms which the invention may assume.

As herein shown, the stiles A A of the sash are extended below the lower rail B thereof to form locking-legs C C. If desired, however, these legs may be made independently of the stiles and rigidly secured to the lower corners of the sash. Locking-plates D D, each having a vertical rib E formed at its outer edge, are secured to the outer face of the sash at the intersections of the stiles and lower rail and co-operate with the said legs in forming a double lock for securing the sash in its raised position, a vertical slot F being formed beneath the lower edge of each plate.

A T-shaped molding G, secured to the lower edge of the lower rail and having its ends abutted against the inner edges of the said plates, co-operates with the same and the legs

in their locking function, and also acts as a rain and dust guard, the molding being applied to the rail so as to form a lip depending below the same. The outer face of each of the said legs is shaped to form a transverse recess H and a shoulder I, which is located below the same. A locking-finger J, having its upper end ribbed, is secured to the shoulder of each leg so as to extend below the extreme lower end thereof.

The box-frame K of the carriage-door receives the sash when the same is in its lowered position and contains its locking-legs when it is in its elevated and locked position. A locking-ledge L, consisting of a long strip of metal, is secured to the inner face of the outer side wall of the box-frame in position to have the locking-plates D D and the depending lip of the molding engaged with its outer face, the plates being adapted thereto by means of the slot F under the lower edge of each of them.

The outer wall of the box-frame is provided in its inner face and near its upper edge with an entering-recess M and a locking-recess N for each leg and finger, the former being deeper and located above and opening into the latter. The said wall of the frame is also provided with two seats O for the respective legs to rest upon, the upper ends of the seats being extended above the lower ends of the recesses I I, so as to retain the locking-fingers therein against inward displacement. The inner faces of these seats are beveled for the outer edges of the sash to ride upon in being raised and lowered. Long springs P P, secured to the rear wall of the box-frame and projecting forward, are arranged to respectively engage with the opposite edges of the sash, which they constantly tend to push outward and toward the outer wall of the box-frame.

As herein shown, the outer edges of the stiles of the sash are provided with strips Q Q, of hard wood or metal, which the springs impinge against, and which are applied so as to project slightly beyond the outer face of the sash and hold the outer faces of the stiles and rails of the same from contact with the box-frame, so that the finish of the sash is not

defaced in raising and lowering it. The ribs formed at the outer edges of the locking-plates take part in this result.

In operating the sash to lock it in its raised position it is pulled up out of the box-frame by a strap or by any other suitable means provided for the purpose, until the locking-plates and the depending lip of the molding clears the locking-ledge secured to the said frame, when the springs will throw the plates and lip outside of the ledge and enter the locking-fingers into the entering-recesses, so as to bring them in line with the locking-recesses. The sash is now allowed to drop, permitting the plates and lip to slide over the outer face of the ledge, the locking-fingers to drop into the locking-recesses, and the lower ends of the legs to rest upon the seat. The sash is now supported entirely from its lower end, which is locked by means of the plates, the lip, and the ledge, and by means of the locking-fingers. The double lock so secured holds the sash very firmly, preventing it from rattling and the glass from breaking. To lower the window, it is manually lifted to clear the plates and the lips from the ledge and the fingers from the recesses, and then pulled inward and let back into the box-frame of the door again. When the sash is raised, the plates, the lip, and the ledge form a water-tight joint between the sash and box-frame.

If desired, the lock at the lower ends of the legs may be formed by providing each leg with a pin and by forming a groove R in each of the door-posts S, the upper end of each groove having a horizontal offset T and a locking end U. We would therefore have it understood that we do not limit ourselves to the exact construction shown and described, but hold ourselves at liberty to make such changes and alterations as fairly fall within the spirit and scope of our invention.

We claim—

1. The combination, with the box-frame of a carriage-door, of a sash having rigid locking-legs extending below its lower rail and adapted to be locked at their lower ends into the box-frame, substantially as described.

2. The combination, with the box-frame of a carriage-door, of a locking-ledge secured thereto, a sash having locking-legs extending below its lower rail and adapted to be interlocked with the interior of the box-frame, and locking-plates secured to the sash and adapted

to co-operate with the ledge to form a lock for the sash, substantially as described. 55

3. The combination, with the box-frame of a carriage-door, of a sash having rigid locking-legs extending below its lower rail and adapted to be interlocked with the interior of the box-frame engaged with the said rigid locking-legs, and a spring located within the box-frame and tending to throw the lower end of the sash into its locked position, substantially as described. 60

4. The combination, with the box-frame of a carriage-door, of a horizontal ledge projecting above the same, a sash adapted to be received within the box-frame, and a T-shaped molding secured to the lower rail of the sash, and having a depending lip adapted to fit over the said ledge, substantially as described. 65

5. The combination, with the box-frame of a carriage-door, of a sash having two rigid locking-legs extending below its lower rail, and a locking-finger offsetting from the outer face of the lower end of each of the said legs, and adapted to enter recesses formed in the box-frame to receive them, substantially as described. 70

6. The combination, with the box-frame of a carriage-door, of a sash having two locking-legs extending below its lower rail, a ledge secured to the box-frame, two locking-plates secured to the lower rail of the sash and adapted to be engaged with the said ledge, and means for locking the lower ends of the locking-legs into the said box-frame, whereby the sash is locked by the plates and the ledge and by the said legs, substantially as described. 75

7. The combination, with the box-frame of a carriage-door, of a sash having two locking-legs extending below its lower rail, means for locking the lower rail of the sash and the lower ends of the legs to the said box-frame when the sash is in its elevated position, and a spring located within the box-frame and exerting an effort to push the sash into its locked position, substantially as described. 80

In testimony whereof we have signed this specification in the presence of two subscribing witnesses. 85

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HORATIO G. BRONSON.

Witnesses:

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FRED C. EARLE.