

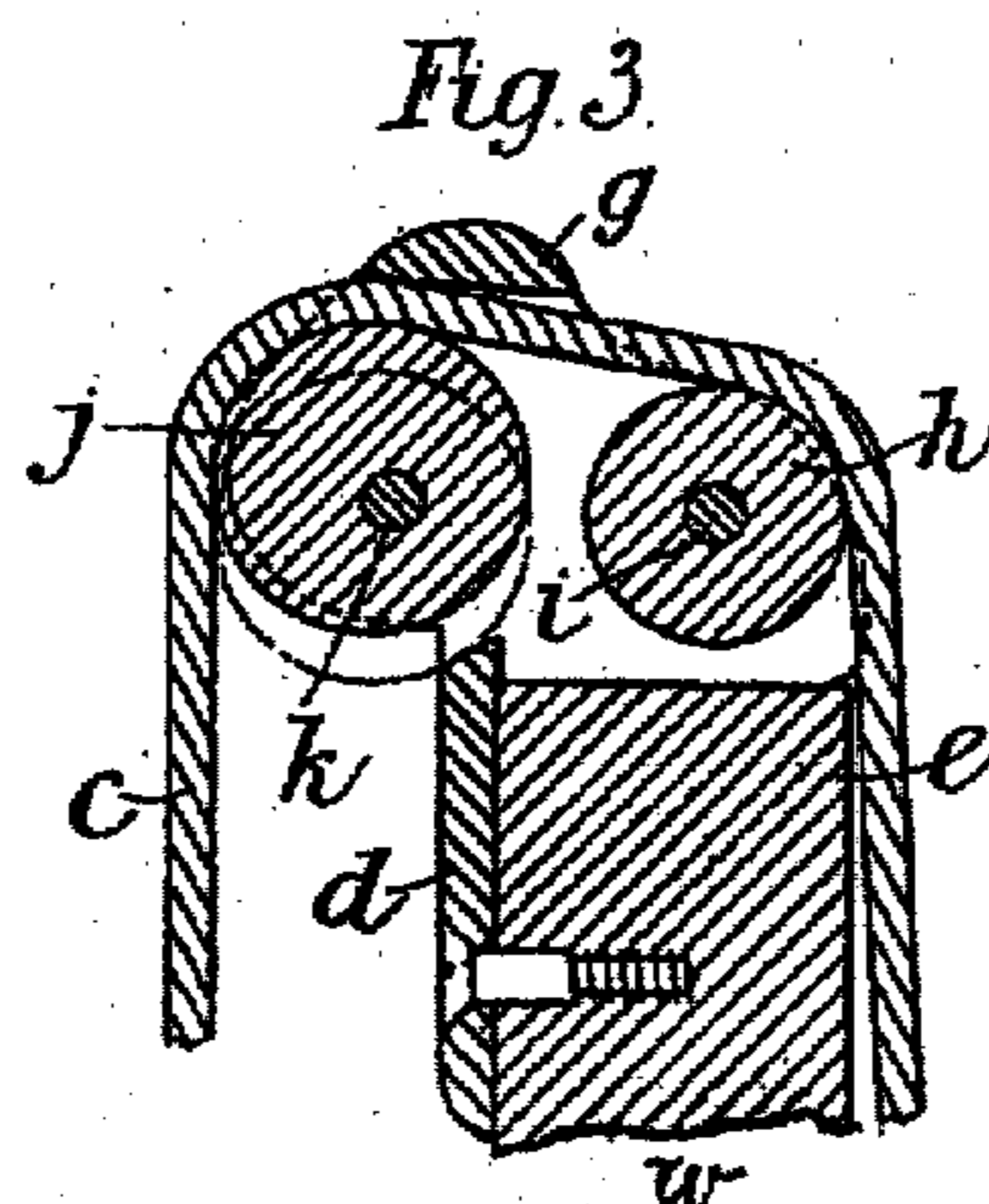
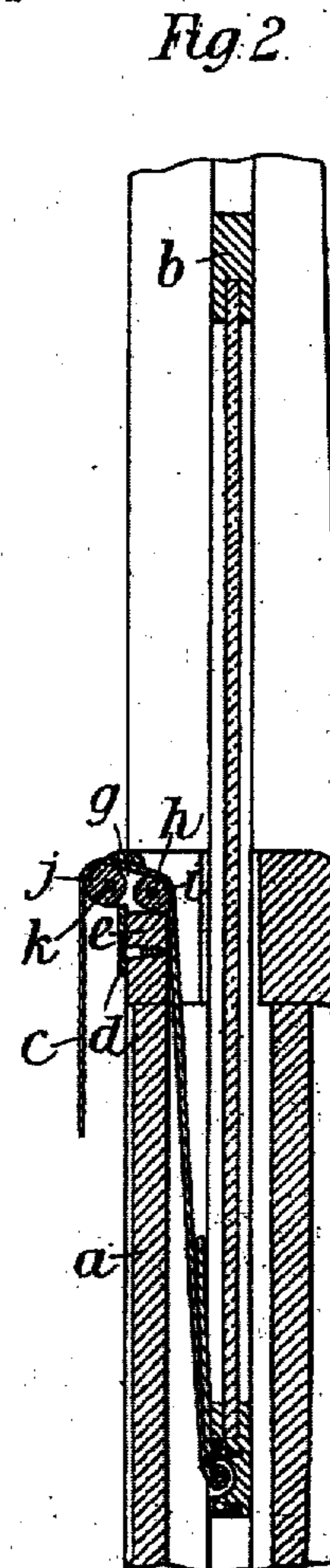
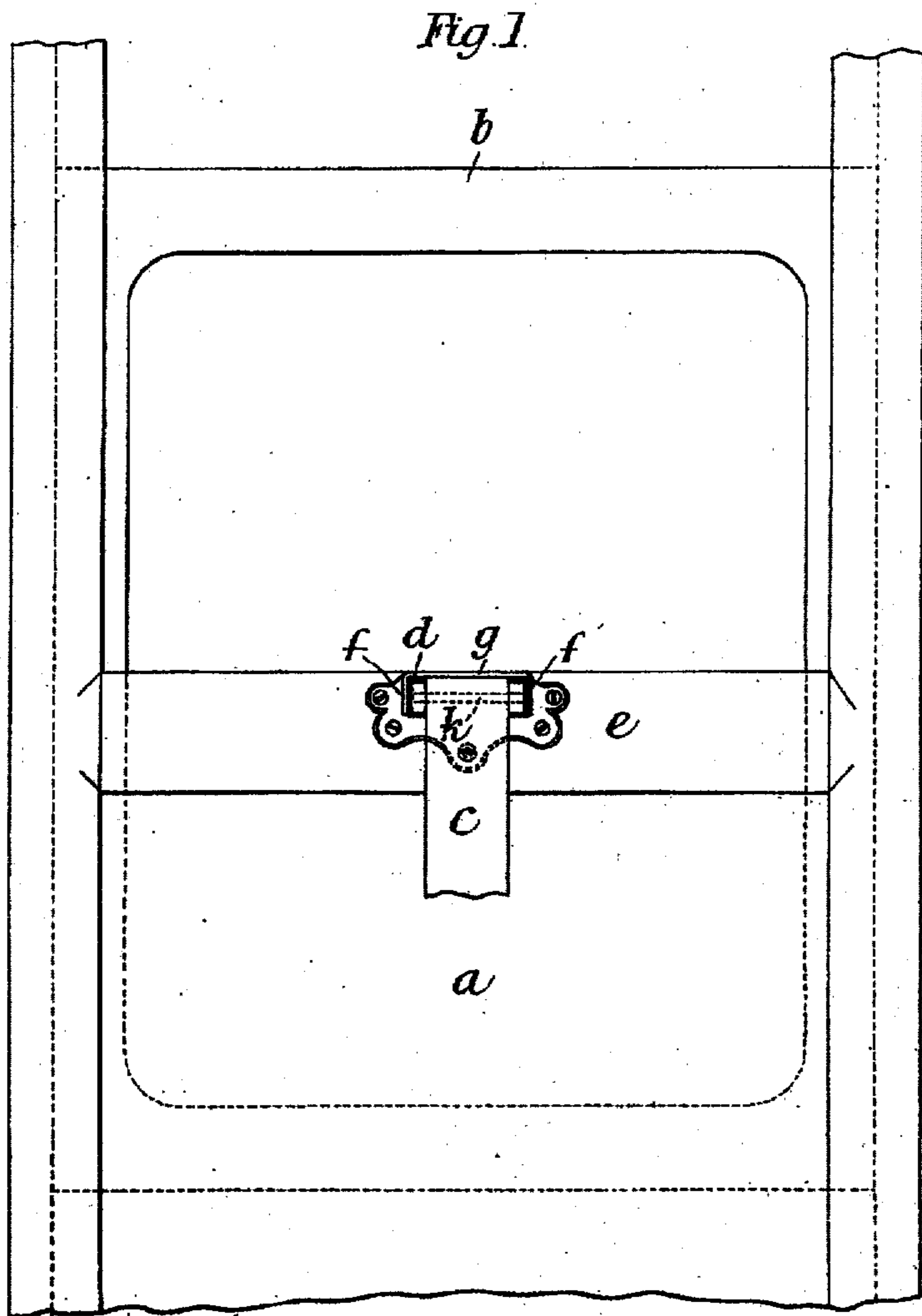
(No. Model.)

2 Sheets—Sheet 1.

E. R. WETHERED.
CARRIAGE WINDOW.

No. 567,427.

Patented Sept. 8, 1896.



Witnesses.
G. J. Redfern
C. J. Redfern

Inventor.
E. R. Wethered

(No Model.)

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Fig. 5.

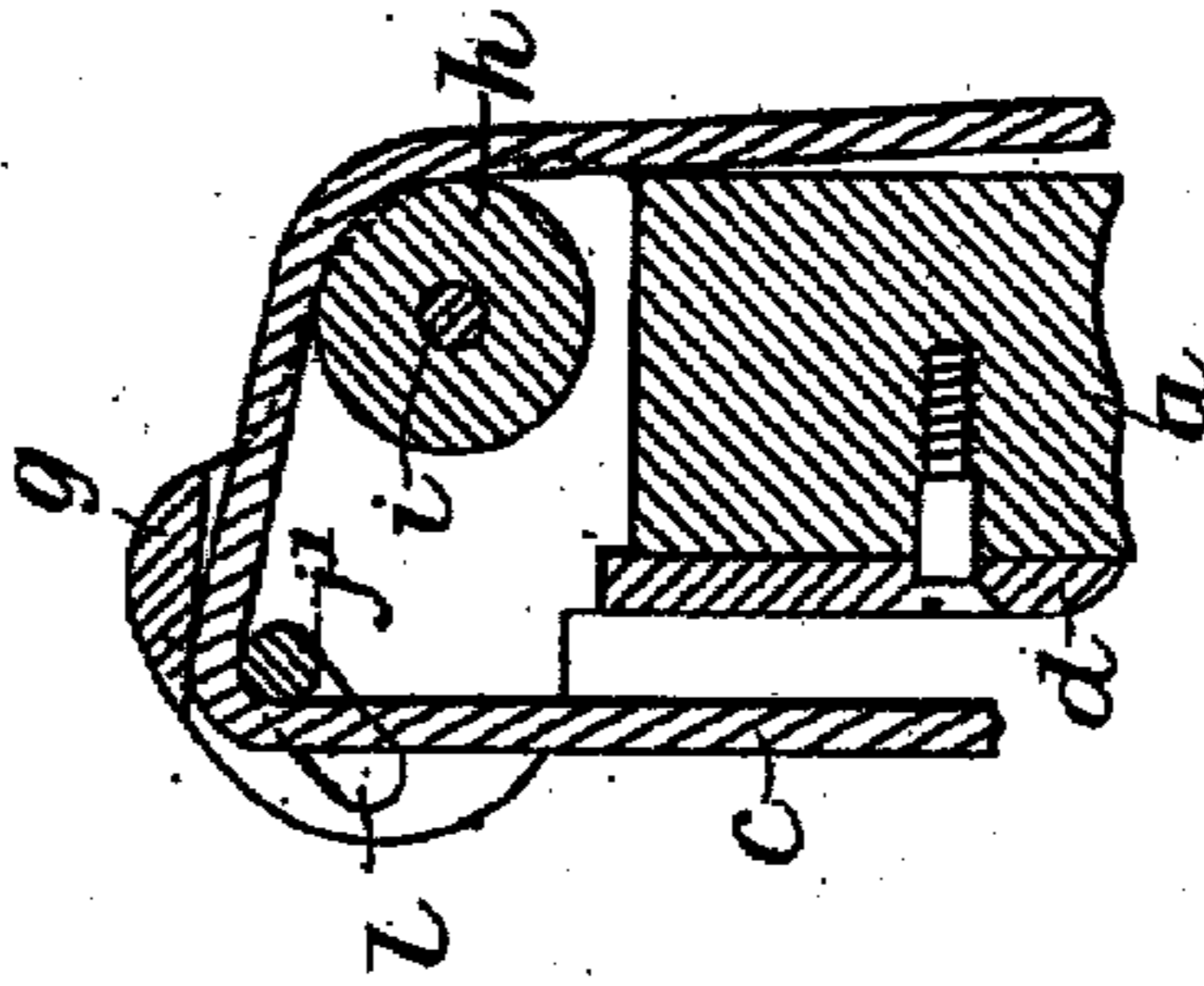
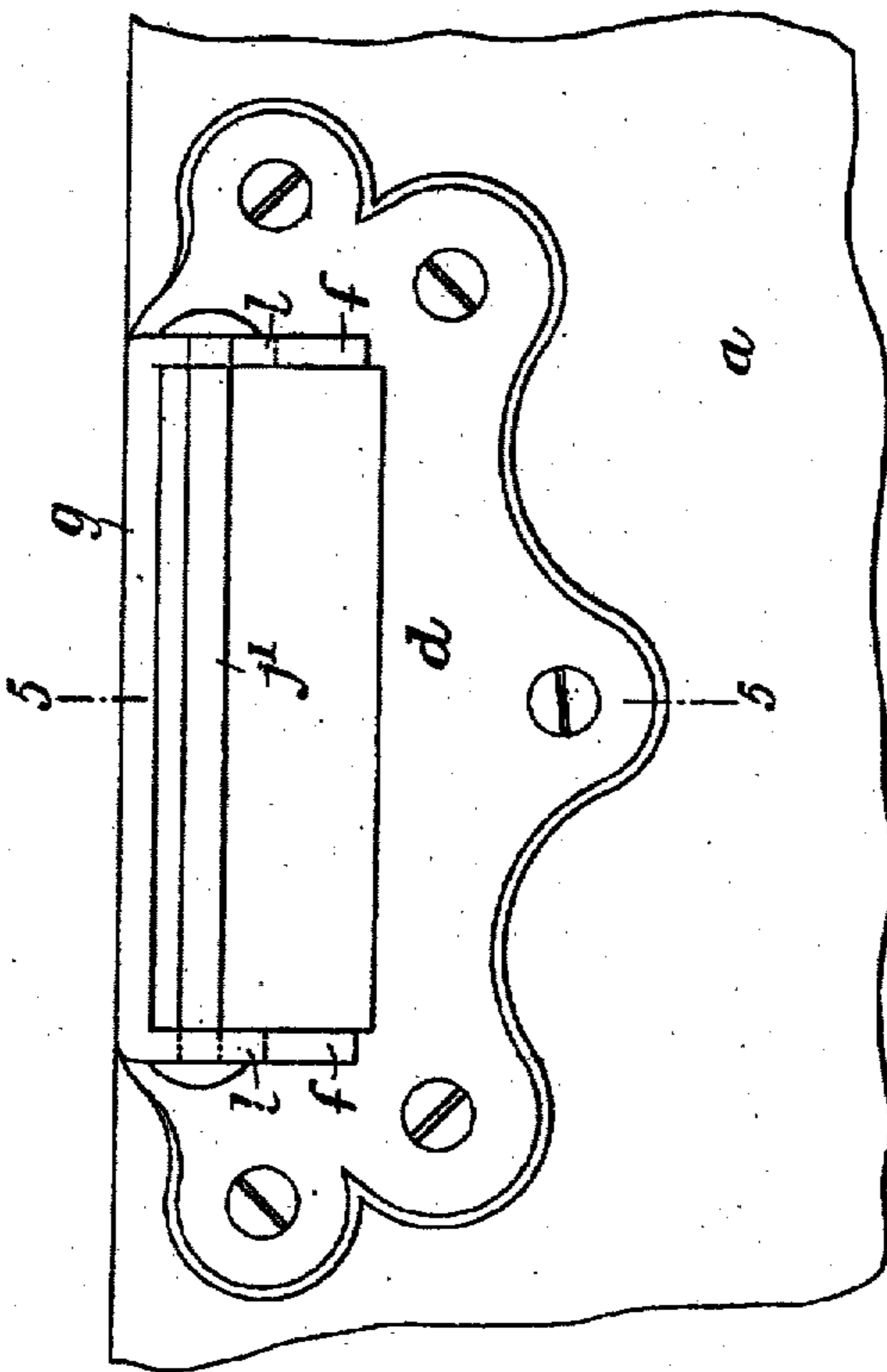


Fig. 4.



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UNITED STATES PATENT OFFICE.

EDWIN ROBERT WETHERED, OF LONDON, ENGLAND.

CARRIAGE-WINDOW.

SPECIFICATION forming part of Letters Patent No. 567,427, dated September 8, 1896.

Application filed June 24, 1896. Serial No. 596,760. (No model.) Patented in England September 20, 1893, No. 17,669.

To all whom it may concern:

Be it known that I, EDWIN ROBERT WETHERED, a subject of the Queen of Great Britain, residing at London, England, have invented
5 new and useful Improvements in and Connected with the Windows of Railway and other Carriages, (for which I have obtained a patent in Great Britain, No. 17,669, dated September 20, 1893,) of which the following
10 is a specification.

This invention relates to improvements in and connected with the windows of railway and other carriages, and has for its object to
15 provide more efficient and simple means than those heretofore employed for retaining the sashes of such windows in any required position.

According to my invention I provide the door of the railway or other carriage in which
20 the window slides with a frame carrying two rollers, over which the strap for raising the sash passes. The inner roller, which can rotate on a central axis, is employed as the usual guide-roller. The axis of the outer roller is
25 eccentric, and the said roller is so arranged that when the sash-strap is allowed to rest on it the weight of the window to which the lower end of the said strap is fixed draws the strap inward, causing the eccentric roller to
30 rotate on its axis and so nip the strap against the upper part of the frame. It will be obvious that the eccentric roller can be replaced, for instance, by a small roller or pin adapted to slide in inclined slots in the sides of the
35 frame. In this case the weight of the sash on the end of the strap pulls the roller or pin up the inclined slot and so causes the strap to be nipped against the upper part of the frame.

40 In the accompanying drawings, Figure 1 is a front elevation of a carriage-door having my improvements applied thereto. Fig. 2 is a vertical section of the same. Fig. 3 is a vertical section of my cam-roller device drawn
45 to a larger scale. Fig. 4 is a front elevation, drawn to a larger scale, of the roller and inclined-slot modification; and Fig. 5 is a section on the line 5 5 of Fig. 4.

50 *a* is the carriage-door, and *b* is the window which slides therein. *c* is the strap fixed to the bottom of the sash or window in the or-

dinary manner for raising and lowering the same.

d is my frame, which is screwed to the cross-rail *e* of the door *a*, the said frame being provided with lateral projections or sides *f f*
55 and an upper part or cover *g*.

h is the inner roller, the axis-pin *j* of which is central, and *j* is the roller mounted eccentrically on its axis-pin *k*. The longer radius
60 of the roller *i* is situated above the axis-pin *k*, so that when the said roller is rotated inward the upper part of its periphery moves toward the cover *g* of the frame. It will be obvious that when the free end of the strap
65 *c* is grasped and pulled the roller *j* is allowed to drop on its axis, so as to recede from the cover *g* of the frame into the position shown in dotted lines in Fig. 3, thereby releasing the
70 strap and allowing the sash to be operated. When, however, the pull on the free end of the strap is removed, the friction of the strap on the roller causes it to again move upward and nip the strap between its upper periphery
75 and the upper part *g* of the frame, as shown clearly in Figs. 2 and 3, whereby the window is held in position.

In the arrangement shown in Figs. 4 and 5 the eccentric roller *j* is replaced by a roller *j'*, which is mounted in inclined slots *l l* in the
80 sides *f f* of the frame *d*. The action of this arrangement is the same as that of the preceding, that is to say, when the free end of the strap is grasped and pulled the roller *j'* is
85 allowed to move downward in the inclined slots *l*, thereby releasing the grip on the strap *c* and enabling the window to be raised or lowered as desired. On removing the pull on
90 the free end of the strap *c* and allowing the strap to rest on the roller *j'* the weight of the window pulls the strap downward and the friction of the strap on the roller *j'* carries it upward in the slots *l*, so as to nip the strap,
as shown in Fig. 5.

Having now particularly described and as-
95 certain the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

1. The combination with the sliding sash of a railway or other carriage window, of a
100 frame having a guide-roller for the sash-strap and another roller over which the said strap

passes and which is adapted when the pull on the strap is released, to change its position and nip the strap against the top of the frame, substantially as described.

- 5 2. The combination with the sliding sash of a railway or other carriage window of a frame having a guide-roller for the sash-strap and a roller which slides in inclined slots in

the said frame and which is adapted to nip the strap against the top of the said frame, substantially as described.

EDWIN ROBERT WETHERED.

Witnesses;

G. F. REDFERN,

JOHN E. BOUSFIELD.