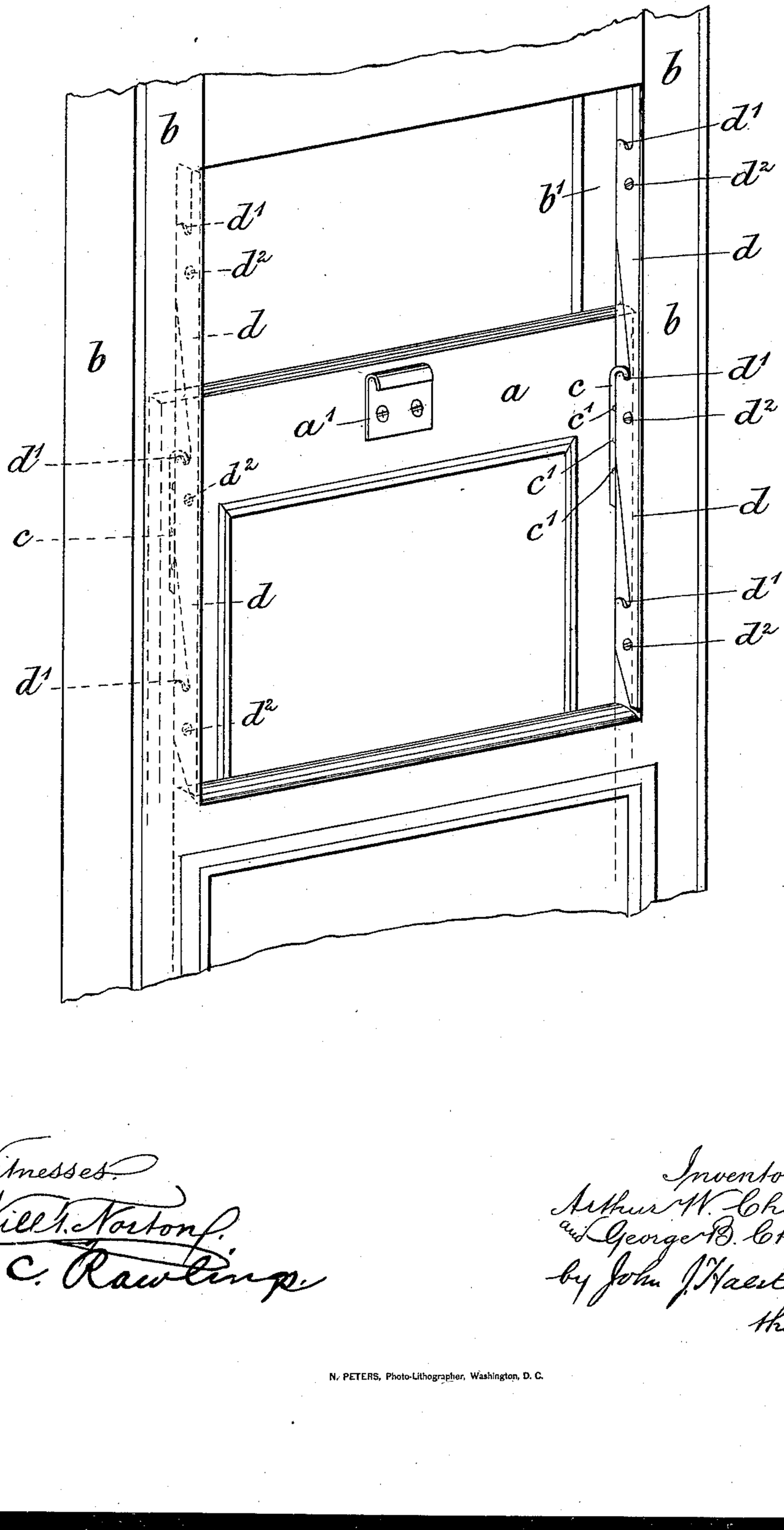
(No Model.) 2 Sheets—Sheet 1.

A. W. CHILD & G. B. CHILDS.

CARRIAGE WINDOW.

No. 383,437. Patented May 29, 1888.

Fig. 1



Witnesses.
Will T. Norton.
A. C. Rawlings.

Inventors,
Arthur W. Child,
and George B. Childs.
by John J. Wacker & Son,
their Attys.

(No Model.)

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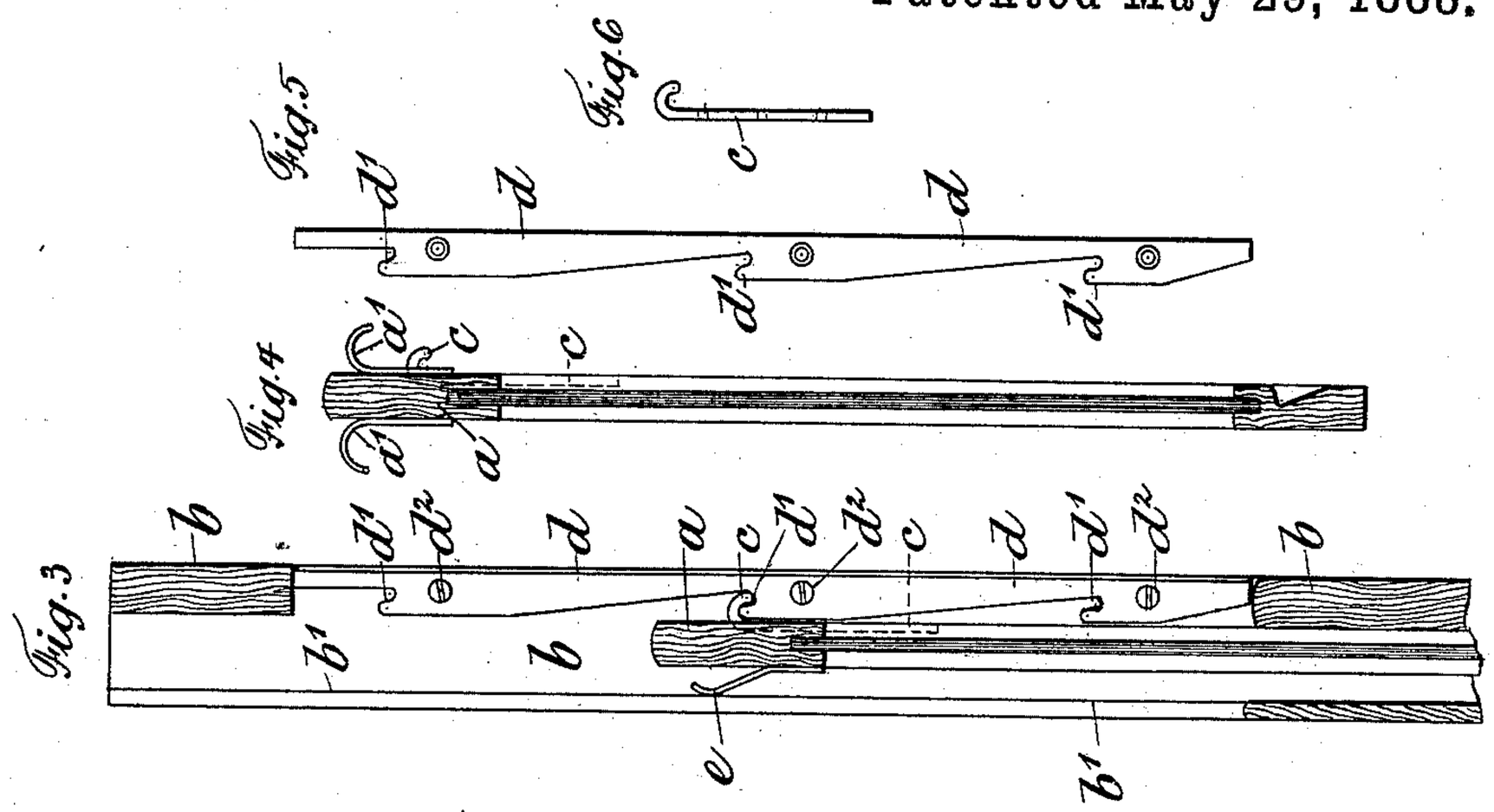

Witnesses:
Will. T. Norton
A. C. Rawlings.

Inventors:
Arthur W. Child
and George B. Childs.
by John J. Halsted & Son.
Their Attys

UNITED STATES PATENT OFFICE.

ARTHUR WILLIAM CHILD AND GEORGE BINSTED CHILDS, OF CLERKENWELL, COUNTY OF MIDDLESEX, ENGLAND.

CARRIAGE-WINDOW.

SPECIFICATION forming part of Letters Patent No. 383,437, dated May 29, 1888.

Application filed November 8, 1887. Serial No. 254,646. (No model.) Patented in England November 18, 1885, No. 14,151.

To all whom it may concern:

Be it known that we, ARTHUR WILLIAM CHILD and GEORGE BINSTED CHILDS, both of 21 St. John's Square, Clerkenwell, county of Middlesex, in the United Kingdom of Great Britain and Ireland, and both subjects of the Queen of Great Britain, have jointly invented an Improvement in Carriage-Window-Supporting Apparatus, (for which we have obtained a patent in Great Britain, No. 14,151, bearing date November 18, 1885,) of which the following is a specification.

Our invention relates to improvements in carriage-window-supporting apparatus in which racks and projections operate in conjunction to hold the sash at one of various heights, as desired. We attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a perspective elevation of a sash and portion of a door. Fig. 2 is a front view of the same. Fig. 3 is a vertical section of the sash and frame of the door adjacent, showing the rack and catch on the opposite side thereof. Fig. 4 is a vertical section of the sash and glass; and Figs. 5 and 6 are detail views, respectively, of the rack and catch for one side of a window and sash separately.

Similar letters refer to similar parts throughout the several views.

The sash *a* is lifted by the plate *a'*, and the hook shaped catch *c*, at either or both sides thereof, engages with the depressed or deep notches of the rack *d*, herein shown as three in number and marked *d' d' d'*, selecting for the time being the one best adapted to support the sash at the required height. The number of the notches may obviously be varied according to the size of opening or other circumstances.

The catch *c* may be applied to one side only of the sash *a* and correspondingly, also, only one rack, *d*. By inverting the rack *d* and placing the catch on the window-frame in a correspondingly-inverted position the sliding member—the sash—may carry the rack and the fixed member the catch, as will be obvious.

To lower the sash *a*, the catch is lifted and disengaged from the dent of the rack in which it is resting, and is raised or lowered to another one or let slide to its bottom position.

In the drawings we have shown a spring, *e*, applied on the sash *a* opposite to the catch *c* and abutting against the boxing *b'*, and if two catches and racks are employed a corresponding number of springs *e* should be used, if they be used at all; but such springs *e* are in no wise essential to the operation of the catch and rack in effectually supporting the window at adjusted distances.

It is essential to the proper working of our invention that the inner surface of the rack-dents *d'* be inclined or recessed, substantially as shown, so that the catches may be kept engaged therein by the dropping of these hooked ends into the correspondingly-depressed cuts or notches *d'* and not be liable to slide or slip away, as would be the case with racks cut at right angles to the plane of movement of the sliding sash.

The racks *d* are preferably of metal and screwed by screws *d²* to the boxing or side frame, *b*.

The catch *c* is preferably screwed by screws *c'* to the sash *a*.

We are aware that prior to our invention window-sashes have been made with supports consisting of racks and catches; but these have, consequent on the dents of the racks being at right angles to the plane of motion of the sashes, always been liable to become disengaged from the catches, and to allow the sashes to fall should violent shaking of the carriage or slamming of the door occur, or even during violent gusts of air. We therefore do not claim such a combination, broadly; but

What we do claim as our invention, and desire to secure by Letters Patent, is—

1. The combination, with a window-sash and its framing, of a hook-shaped catch, as *c*, and a rack, as *d*, having sunken notches, and recesses, as *d'*, to receive and hold the catch *c*, substantially as and for the purpose set forth.

2. The combination, with a window-sash and its framing, of a hook-shaped catch, as *c*, and a rack, as *d*, having sunken notches, and recesses, as *d'*, to receive, hold, and hook the catch, aided by a spring applied to the sash, so as to press the catch and rack toward each other, as set forth.

In testimony whereof we, the said ARTHUR WILLIAM CHILD and GEORGE BINSTED CHILDS, have hereunto set our hands this 26th day of October, 1887.

ARTHUR WILLIAM CHILD.
GEORGE BINSTED CHILDS.

Witnesses:
A. W. FOULSHAM,
H. I. EDWARDS.