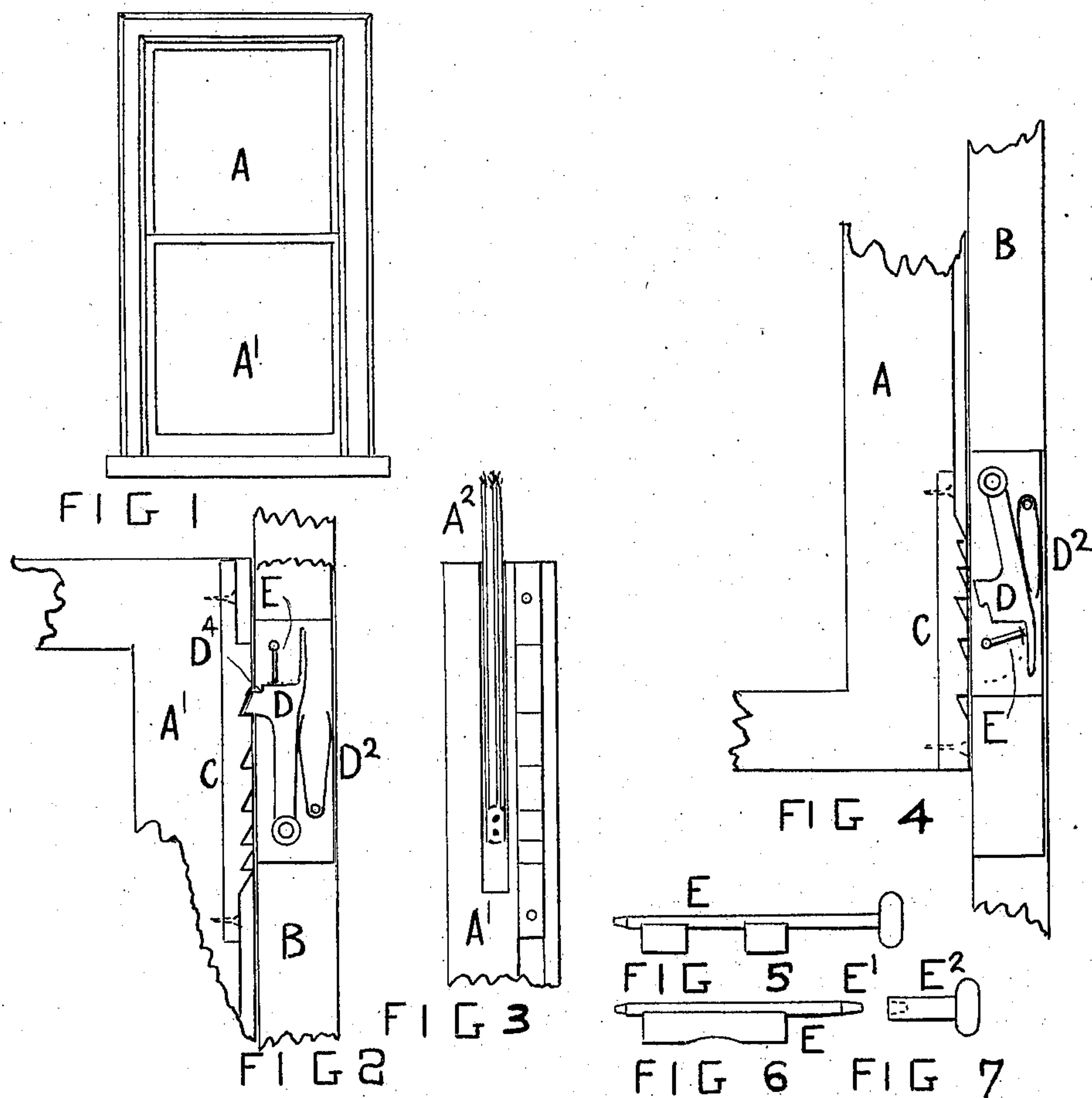


N. A. BOOTH.  
SASH FASTENER.  
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963,504.

Patented July 5, 1910.



Witnesses

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# UNITED STATES PATENT OFFICE.

NICOL ALEXANDRA BOOTH, OF LEITH VALLEY, DUNEDIN, NEW ZEALAND.

## SASH-FASTENER.

963,504.

Specification of Letters Patent.

Patented July 5, 1910.

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*To all whom it may concern:*

Be it known that I, NICOL ALEXANDRA BOOTH, builder, a subject of His Majesty the King of Great Britain, residing at Leith Valley, in the city of Dunedin, in the British Dominion of New Zealand, have invented certain new and useful Improvements in Sash-Fasteners; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The object of this invention is to so control hung sashes that the possessor of the key can open both to an approved distance and when the key is withdrawn, the sashes may be partly or fully closed at any time but cannot be opened wider in any way without renewed application of the said key. For this purpose, I employ graduated racks fixed to double-hung sashes of the usual type and designed to be engaged by spring pawls fixed to the pulley stile and controlled by a special key, the arrangement of the pawls being such that both may be released simultaneously by the key.

The preferred embodiment of the invention is illustrated in the accompanying drawings, wherein:

Figure 1 is a front elevation of an ordinary sash window equipped with the present invention, the sash being shown as closed. Fig. 2 is a fragmental detail view of the lower sash and the pawl engaged therewith. Fig. 3 is a fragmental side elevation of the lower sash and its cord. Fig. 4 is a view similar to Fig. 2, of the upper sash and the pawl associated therewith. Fig. 5 is a detail view of the releasing key. Fig. 6 is a similar view of a modified form of key. Fig. 7 is a detail view of the cap for operating the key shown in Fig. 6.

Reference being had to said drawings, and to the letters marked thereon, A and A' denote, respectively, the upper and lower sashes hung in the usual manner by means of cords A<sup>2</sup> (one of which is shown in Fig. 3 in connection with the lower sash), and B the pulley stile.

Within a centrally-located seat formed in the outer side wall of either stile, the right-hand stile of the present instance, there is positioned a hollow case whose entire front is open, so as to permit the two pawls D pivoted therewithin to engage the racks C set into the side faces of the adjacent side rails

of the sashes. There are two of these racks employed, one being located at the lower end of the upper sash rail, and the other at the upper end of the lower sash rail, such arrangement permitting both sashes to be locked at the same time.

The pawls D located within the case are arranged in parallel vertical planes and have their free ends projecting toward each other, as will be apparent from an inspection of Figs. 2 and 4. Each pawl is formed with an enlarged lateral tooth adapted for co-operation with the rack teeth and having a notch D<sup>4</sup> therein to prevent the pawl from being released or shifted by the insertion of a tool between the sash and stile. In addition to the tooth above referred to, there is provided upon each pawl a finger arranged longitudinally thereof. These fingers extend toward and past each other. The pawls are normally forced outwardly of their case to engage the racks by means of leaf springs D<sup>2</sup> which are interposed within the case between the rear wall thereof and the body portions of the pawls. To release the pawls from such engagement, a key E having a pair of spaced feet, (Fig. 5), or a single axially-elongated foot, (Fig. 6), is employed. In the latter form of key, the operating cap or head E<sup>2</sup> is constructed separately from the shank E<sup>1</sup> and has a squared socket in which the squared shank end is arranged to fit. When the key made use of has been inserted in place in the key-hole, it may be turned in the direction indicated by the dotted lines in Figs. 2 and 4, whereby its feet or foot will be brought into contact with the fingers on the two pawls. Continued movement of the key will thus swing the pawls inwardly of the casing and release their teeth from engagement with the racks, whereupon both sashes, or either of them, may be raised or lowered, as desired. Thus it will be seen that by so arranging the pawls that their fingers extend toward and past each other, and by locating the pawls centrally of the stile, the necessity for the employment of two separate cases and keys is obviated, as both pawls may be disengaged by a single key.

With reference to the racks made use of, it may be stated that they are preferably graduated, as shown in Figs. 2 to 4, the distance between the successive teeth gradually decreasing from the outer to the inner ends of the racks. The teeth of the racks, more-



over, extend toward each other, so that after the sashes have been adjusted, they may subsequently be closed or shut, but cannot be opened to a greater extent. The racks, 5 furthermore, are preferably not over a foot long, and since they are located adjacent the meeting rails of the sashes, the latter cannot be locked unless they are opened a comparatively slight distance only, the maximum in the present instance being seven 10 inches, which is insufficient to permit a robber to crawl therethrough.

The key shown in Fig. 5 is designed to be removed from the key-hole, when not in use, 15 while that shown in Figs. 6 and 7 has its stem portion adapted for permanent disposition in the key-hole, the cap or head portion of this form of key being removable, as already stated.

20 What is claimed is:

The combination, with a window frame, and a pair of sashes slidable therein, of a

vertical rack secured to each sash at one side thereof; a case fitted in the frame adjacent 25 said racks; a pair of pawls separately pivoted at one end within the case and provided at their free ends with longitudinal fingers projecting toward and past each other, and with lateral teeth adapted to engage said racks, said pawls being arranged 30 for movement outwardly of the case to bring said teeth into position for such engagement; means for yieldingly holding the pawls in such position; and a key arranged 35 for insertion within the case and provided with means for engaging said fingers, to simultaneously release both pawls.

In testimony whereof, I affix my signature, in presence of two witnesses.

NICOL ALEXANDRA BOOTH.

Witnesses:

HENTON MACAULAY DAVEY,  
MARJORIE DAVEY.