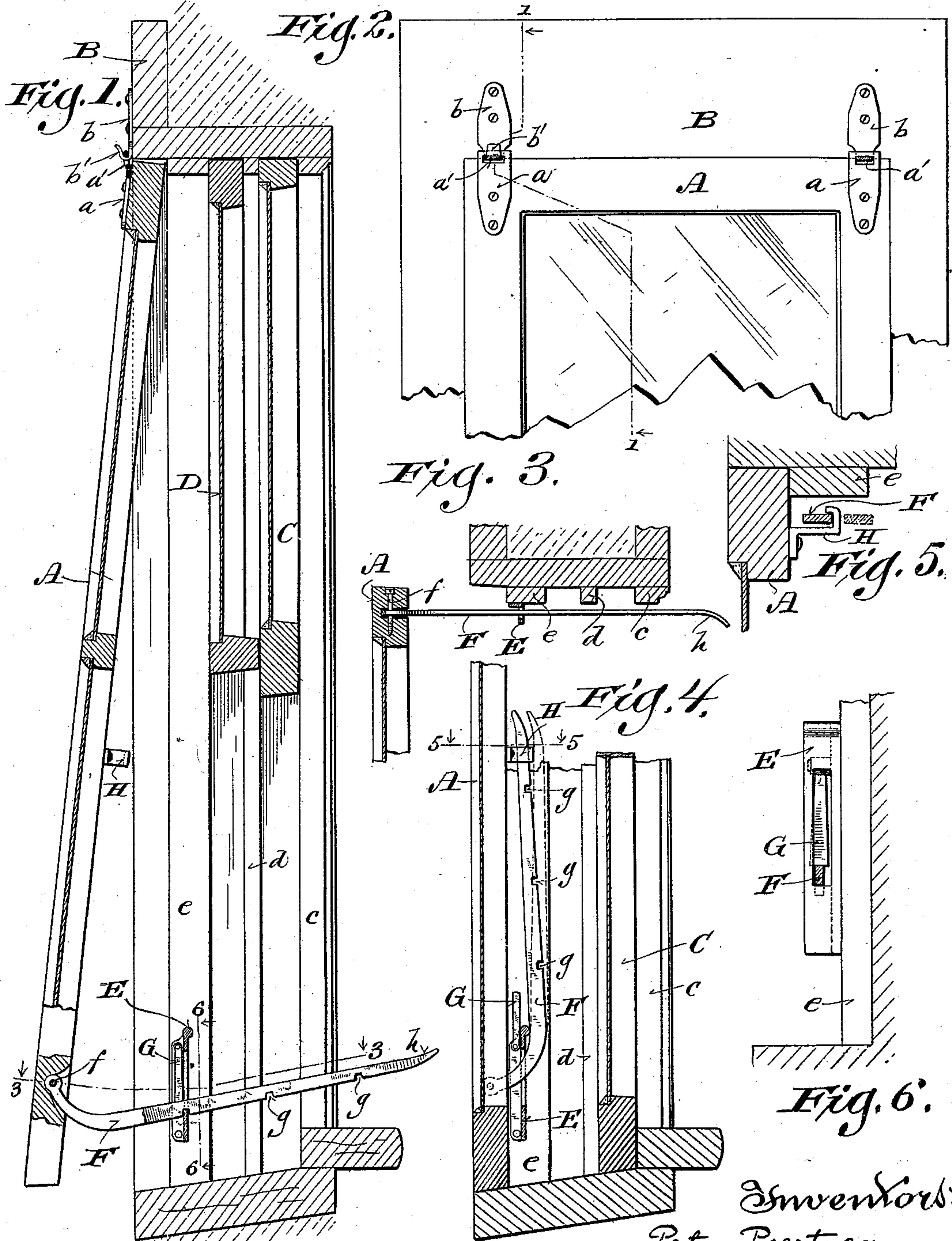


(No Model.)

P. POERTNER & W. ROMÜNDER.  
STORM WINDOW OR ANALOGOUS DEVICE.

No. 532,483.

Patented Jan. 15, 1895.



Witnesses  
Geo. W. Young,  
Henry Rankert

Inventors:  
Peter Poertner,  
William Romünder  
By H. G. Underwood,  
Attorney



# UNITED STATES PATENT OFFICE.

PETER POERTNER AND WILLIAM ROMÜNDER, OF MILWAUKEE, WISCONSIN,  
ASSIGNORS TO SAID ROMÜNDER AND EDWARD J. FELLMAN, OF SAME  
PLACE.

## STORM-WINDOW OR ANALOGOUS DEVICE.

SPECIFICATION forming part of Letters Patent No. 532,483, dated January 15, 1895.

Application filed January 20, 1894. Serial No. 497,530. (No model.)

*To all whom it may concern:*

Be it known that we, PETER POERTNER and WILLIAM ROMÜNDER, citizens of the United States, and residents of Milwaukee, in the county of Milwaukee, and in the State of Wisconsin, have invented certain new and useful Improvements in Storm-Windows or Analogous Devices; and we do hereby declare that the following is a full, clear, and exact description thereof.

Our invention relates to storm windows and analogous devices, and consists in certain peculiarities of construction and combination of parts as will be fully set forth hereinafter and subsequently claimed.

In the drawings: Figure 1 is a vertical section, taken on line 1—1 of Fig. 2, through a window casing provided with our improved device, showing the latter locked in an open position. Fig. 2 is a front outside view of the upper portion thereof. Fig. 3 is a transverse sectional view on the line 3—3 of Fig. 1. Fig. 4 is a view of the parts shown in the lower part of Fig. 1, and taken on the same section line but with our device locked in a closed position. Fig. 5 is a detail sectional view on the line 5—5 of Fig. 4. Fig. 6 is a detail sectional view on the line 6—6 of Fig. 1.

Our invention, as shown in the present drawings, is embodied in the construction and attachments of a storm-window, A, suspended by means of separable hinges *a b* to the upper exterior surface B, of a window casing of ordinary construction, so as to be readily removable therefrom and quickly attachable thereto, our device being designed to be adjusted to position by being passed through the opened window from the inside of the structure, and then raised to place and connected to the hinges, when most convenient, thereby rendering it of especial utility for the upper windows of a house, and dispensing with the necessity of ladders in its application or removal, and to that end we find it extremely convenient to form the upper portions *b* of the described hinges with upturned lips *b'* at their lower ends for ready engagement with slots *a'* in the upper ends of the lower portions *a* of said hinges, the parts *b* *b* being permanently secured to the casing

B, and the parts *a a* similarly secured to the sash of the window A.

C D represent a pair of window sashes of any ordinary construction, and *c, d, e*, the vertical guide-strips therefor. The strips *e* are provided with suitable loops or catches E preferably of metal to receive the adjusting spring-arms F pivoted as shown at *f* in recesses on the inner side of the sash of the window A, the said arms having preferably notches *g g* on their under sides, and the loops E being preferably provided with pivoted dogs G, for the purpose of locking the adjusting arms F, when the window A has been swung open to any desired point, as shown in Fig. 1. The sash of the window A is further provided, on each side, at a point preferably just a little below its vertical center, with inwardly projecting hooks or catches H, so that, when the window A is closed, the arms F may be raised and their free end sprung in back of these catches, as shown in Figs. 4 and 5, these spring-arms having a tensional bearing on the upper ends of the loops E E, and the shape and relative position of the parts being such that normally, when the arms F are raised, their upper edges merely come against the exterior ends of the hooks or catches H (as shown in dotted lines in Figs. 4 and 5) so that when their free ends are sprung in back of said hooks H (which operation is facilitated by the inward bend *h* given to said ends of the arms F) these spring arms serve to draw the window A in very closely to its seat, at the center as well as at the top and bottom, and thereby not only prevent any rattling, but insure everywhere a tight fit, thus keeping out cold air to a greater extent than if the sash of the window A was only held at top and bottom, while at the same time said sash can be instantly freed, when desired, and opened from the inside, for the purpose of ventilation or cleaning, or for removal.

While we have illustrated and described our invention with reference to a storm window it will be understood that it is equally applicable to an outside blind, window-screen or any analogous device, and while in practice we prefer to employ a pair of arms F, one at each side of the window-casing, it is obvi-



ous that our device might be operated by a single arm, with suitable catches and securing devices for engagement therewith.

Having now described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The combination with a window casing provided with a suitable loop or catch, of a storm-window, screen, blind, or analogous device movably secured to said casing, at one end, and a pivoted notched spring arm adjustably connecting the opposite end of said device with said loop or catch.

2. The combination with a window casing provided with a suitable loop or catch, of a storm-window, screen, blind, or analogous device suspended from said casing, and a notched spring arm pivoted to the lower part of said suspended device and having adjustable connection with said loop or catch.

3. The combination with a window casing provided with a suitable loop or catch, of a storm-window, screen, blind, or analogous device suspended from said casing, a notched spring arm pivoted to the lower part of said suspended device, and having adjustable connection with said loop or catch, and a dog pivotally connected to said casing, above said arm for locking the same in its adjusted position.

4. The combination with a window-casing provided with a suitable loop or catch, of a freely movable storm-window, screen, blind, or analogous device suspended from said casing by separable hinges, the upper members

of which are permanently secured to the casing, and the lower members of which are permanently secured to said suspended device, and a pivoted notched spring arm adjustably connecting the opposite end of said suspended device with said loop or catch.

5. The combination with a window-casing provided with suitable loops or catches, of a storm-window, screen, blind or analogous device suspended from said casing and provided with inwardly projecting hooks or catches, and spring-arms pivoted to said suspended device on a plane below said hooks or catches, and having adjustable connection with the loops or catches on the casing and locking connection with the said hooks or catches on the said suspended device.

6. The combination with a window casing provided with a suitable catch, of a storm-window, screen, blind, or analogous device suspended from said casing, and provided with a catch intermediate of its length and a spring arm pivoted to the said suspended device, and having locking engagement with the catches on both the casing and said suspended device.

In testimony that we claim the foregoing we have hereunto set our hands, at Milwaukee, in the county of Milwaukee and State of Wisconsin, in the presence of two witnesses.

PETER POERTNER.

WILLIAM ROMÜNDER.

Witnesses:

H. G. UNDERWOOD,  
HENRY DANKERT.