(No Model.)

J. ANDERSON.

WINDOW FRAME AND SASH.

No. 481,091. Patented Aug. 16, 1892.

Fig. 1

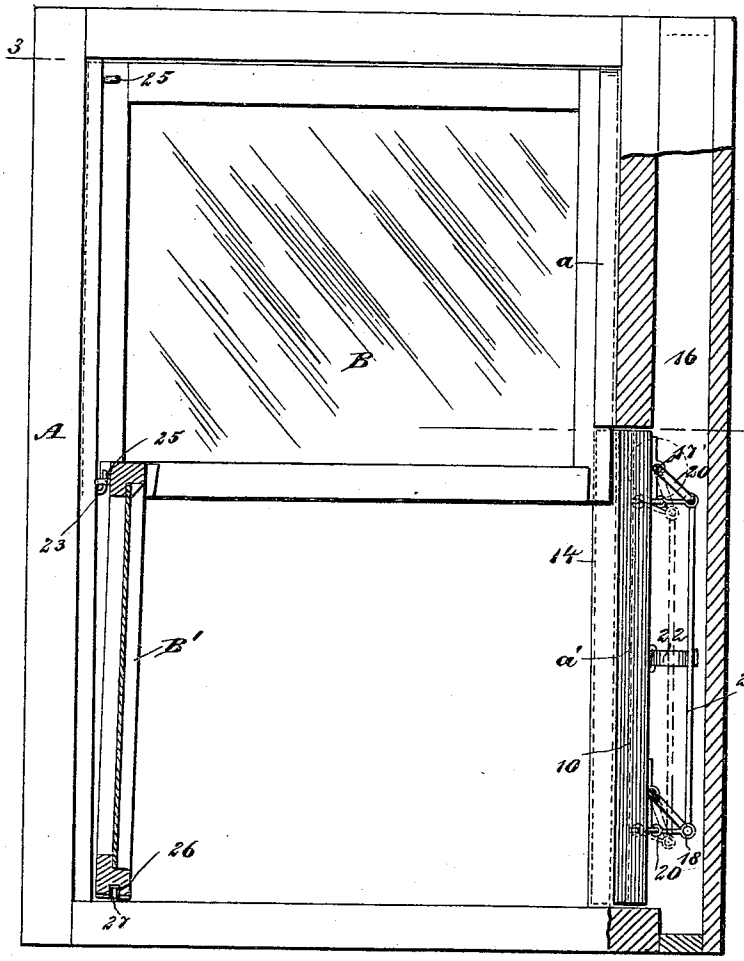


Fig. 2.

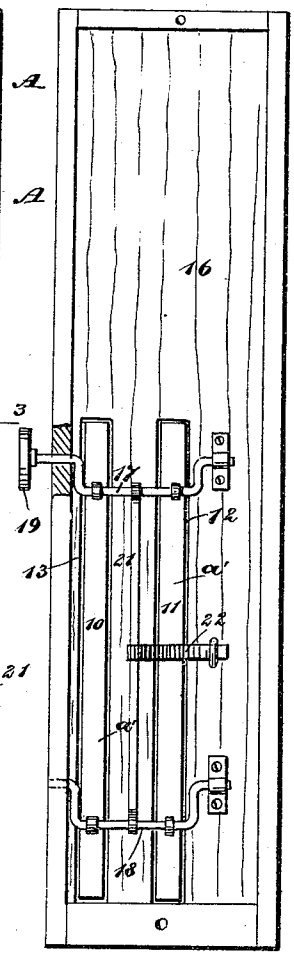
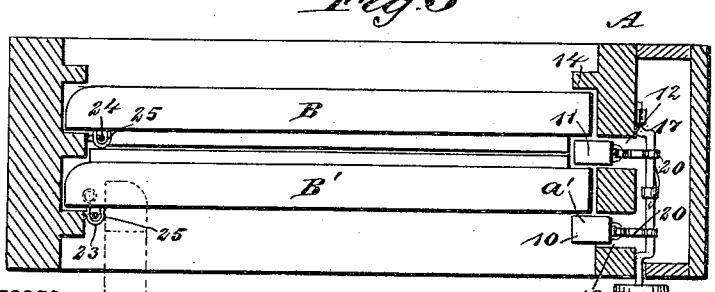


Fig. 3



WITNESSES:

F. M. Ardle.

E. M. Clark

INVENTOR:

John Anderson

BY

Munn & Co

ATTORNEYS.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JOHN ANDERSON, OF HICKSON, NORTH DAKOTA.

WINDOW FRAME AND SASH.

SPECIFICATION forming part of Letters Patent No. 481,091, dated August 16, 1892.

Application filed February 1, 1892. Serial No. 419,920. (No model.)

To all whom it may concern:

Be it known that I, JOHN ANDERSON, of Hickson, in the county of Cass and State of North Dakota, have invented a new and useful Improvement in Window Frames and Sashes, of which the following is a full, clear, and exact description.

My invention relates to an improvement in window frames and sashes, and has for its object to so construct the frames and fit the sashes therein that the latter may be swung outward to stand at a right angle to the frame, so that both sides of the glass may be conveniently and effectually cleaned.

Another object of the invention is to accomplish this result in a simple and economic manner and without much alteration in the present form of frame and no alteration whatever in the present form of sashes.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures and letters of reference indicate corresponding parts in all the views.

Figure 1 is a front elevation of a window-frame constructed in accordance with my invention, a portion of the frame being in vertical section, the upper sash being in its normal position and the lower sash opened at a right angle to the frame. Fig. 2 is an end view of the window-frame, with the cover of its boxing removed; and Fig. 3 is a transverse section taken, practically, on the line 3 3 of Fig. 1.

The window-frame A is of the ordinary construction, except that upon one side from a slight distance above the center to the lower sill the inner bead 10 and the parting-bead 11 are made in two sections, an upper rigid section *a*, attached to the frame in the usual manner, and a lower movable section *a'*, the latter section being adapted to have lateral movement to and from the opposite side of the frame, and to provide for such movement of the sections *a'* of the beads vertical slots 12 and 13 are produced in the side of the frame at which the sectional beads are located. These slots 12 and 13 are adapted one to receive the movable section of the parting-bead and the other the corresponding section of the inner bead, and these bead-sections have free movement in the said slots, as is best shown in Fig. 3. The outer bead 14 upon that side of the frame containing the sectional bead is preferably made in the usual manner—that is, in one piece—and all of the beads upon the opposite side of the window-frame are likewise made in the usual manner.

The upper sash B and the lower sash B' slide in the usual sashways between the beads. At one side of the frame a boxing 16 is located or constructed, and upon the inner wall of this boxing two crank-shafts 17 and 18 are journaled, as is best shown in Figs. 1 and 2, one crank-shaft being below the other, and said shafts are so located that one of the shafts is placed near the upper end of the movable sections of the beads 10 and 11, and the other shaft near the lower ends of said sections. The upper crank-shaft, however, extends outward in front of the frame, and is provided with a button 19 or other form of handle, whereby the shaft may be manipulated. Each crank-shaft 17 and 18 is connected with the movable sections of the beads 10 and 11, ordinarily, through the medium of links 20, and the two crank-shafts are connected in their turn by a link 21, as is best shown in Fig. 2. The connecting rod or link 21 uniting the crank-shafts is normally pressed by a spring 22, likewise shown in Fig. 2, for a purpose to be hereinafter specified.

At the side of the frame containing the ordinary form of beads two hooks or brackets 23 and 24 are located, preferably, in the same horizontal plane, one being secured to the inner bead and the other to the parting-bead, as shown in Fig. 3, and the upper and lower sash are respectively provided with an eye 25, so located that the eye of the lower sash will receive the bracket upon the inner bead when said sash is in its lower or closed position and the eye upon the upper sash will receive the bracket 24 on the parting-bead when the upper sash is in its lowermost position. Each sash at that side carrying the eye has produced in its under face a socket 26, and when the sashes are brought down to an engagement with the lower sill of the window-frame pins 27, located in said sills, enter said sock-

ets. By this means when the sashes are lowered each sash at one side will have a hinged connection with the frame.

In operation, when it is desired to clean the window the button 19 is manipulated to carry the crank-arms of the crank-shafts outward, and thus carry the sections a' of the sectional beads 10 and 11 substantially into the boxing, leaving the lower portion of the frame at that side without any projections upon its inner face below its center and providing for the free movement of each sash when carried down to an engagement with the lower sill outward at a right angle to the frame. The sections a' of the beads having thus been carried out of the way of the sashes the lower sash, after the inner face of the sash is cleaned, is swung out at a right angle to the frame upon its hinges, as shown in Fig. 1, and the outer face of the pane may then be conveniently operated upon. This sash is then removed from its hinged connection with the frame. The upper sash is lowered, cleaned upon its inner face, and swung out upon its hinges, as was the lower sash, in order that the outer face of the pane may be cleaned and polished. When the upper sash has been cleaned, it is restored to its position within the frame and is carried upward to its normal position. The lower sash is then placed in its normal position in the frame and the button 19 of the upper crank-shaft is manipulated to throw the lower sections of the sectional beads inward, locking the sashes in their proper position. This inward movement of the sections of the parting-rails is greatly facilitated by the pressure of the spring 22 upon the connecting-link 21, uniting the two shafts.

It will be observed that this attachment may be conveniently added to any window-frame and that the sashes need not be constructed in a different manner than at present, and it is apparent that great economy of time in the cleaning of windows will be attained by the employment of the improvement.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A window-frame having one of its parting-beads and one of its inner beads provided with a movable section, connected crank-shafts mounted in the frame and connected with the said movable beads to move them to and from the sashes to permit the sashes to swing outward, and means for operating said crank-shafts, substantially as set forth.

2. A window-frame provided with vertical slots in one face and having one of its parting-beads and one of its inner beads provided with a movable section mounted in said slots to move toward and from the sashes, connected spring-pressed crank-shafts connected with said movable sections, and means for operating said shafts, substantially as shown and described.

JOHN ANDERSON.

Witnesses:
GEO. JACOBSON,
P. E. QUALEY.