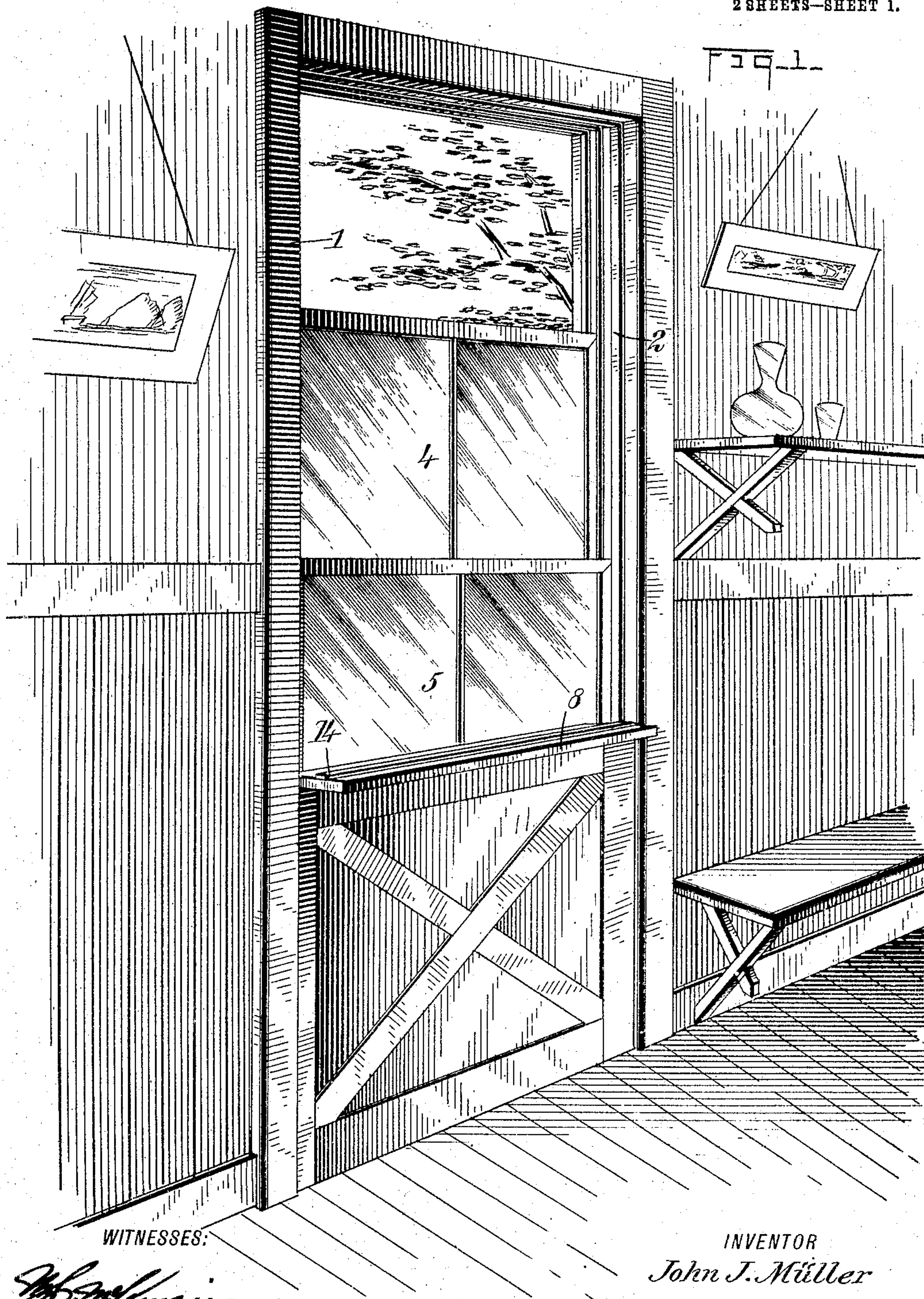


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J. J. MÜLLER.
DISAPPEARING WINDOW.
APPLICATION FILED AUG. 31, 1904.

2 SHEETS—SHEET 1.



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DISAPPEARING WINDOW.

SPECIFICATION forming part of Letters Patent No. 780,902, dated January 24, 1905.

Application filed August 31, 1904. Serial No. 222,814.

To all whom it may concern:

Be it known that I, JOHN J. MÜLLER, a citizen of the United States, and a resident of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Disappearing Window, of which the following is a full, clear, and exact description.

This invention relates to the construction of window casings and sashes, together with their attachments, the object of the invention being to produce an arrangement whereby the sashes may disappear in the casement of the window or in a wall in order to increase the area of the opening of the window.

The invention consists in the construction and combination of parts to be more fully described hereinafter and definitely set forth in the claims.

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

Figure 1 is a perspective view showing a portion of a wall and a window constructed according to my invention. Fig. 2 is a vertical section of the window-casement, representing the sashes in elevation and in the relation which they would assume when the window is closed. Fig. 3 is a vertical section similar to Fig. 2, but representing the sashes received within the casement of the window. Fig. 4 is a perspective view representing a portion of the window-casement and illustrating an attachment constituting a part of the invention. Fig. 5 is a horizontal section taken at substantially the height of the window-sill and representing a portion of the window-casement and the sashes. Fig. 6 is a section somewhat similar to Fig. 5, but representing the sash-cords in a different position; and Fig. 7 is a horizontal section similar to Figs. 5 and 6, but representing a modified construction of an attachment for retaining the sash-cords.

Referring more particularly to the parts, 1 represents a window-frame the upper portion of which may be of any common construction, comprising guide-strips 2, which comprise parting-strips 2^b and beads 2^a, forming runs 3 therebetween, through which a pair of sashes

4 and 5 may be guided in the usual manner. These sashes are counterweighted in the usual manner, the counterweights being attached by means of the usual sash-cords 6, which pass over pulleys 7 into the interior of the casement of the window, as will be readily understood.

Below the sill 8 of the window the casement thereof is formed into recesses or chambers 9 and 10, which are disposed directly below the guide-runs 3, in which the sashes 4 and 5 are guided. The chambers 9 and 10 are formed between solid panels 11, the said panels being respectively substantially in alinement with the beads 2^a. At the sides the chambers 9 and 10 are parted by centrally-disposed guide-strips 12, which constitute continuations of the parting-strips 2^b.

As indicated most clearly in Figs. 2 and 3, the guide-strips 2 are cut away at substantially the level 13 in order to enable the aforesaid sill 8 to slide into the position in which it is shown in Fig. 2. When in this position, the sill rests upon the upper edges of the panels 11. Its upper face is provided with a weather-strip 14, which is adapted to abut against the outer face of the lower portion of the sash 5 when the sashes are disposed in their closed relation, as indicated in Fig. 2.

In order to prevent any possibility of the sash-cords 6 from interfering with sliding the sill 8 into position, there is provided a keeper 15, which is illustrated most clearly in Fig. 4. This keeper consists of a plate which is attached to the side face of the casing at the bottom of a recess 16, formed in the parting-strip 2^b. It may be attached by means of screws 17, as shown, and its extremities project laterally across elongated recesses 18, which are formed in the face of the casement at this point. In this connection it should be understood that the recess 16 is in substantial alinement with corresponding recesses 19, which are all substantially at the level 13, so as to constitute a guide for the sill when slid into position, as will be readily understood. In order to enable the keeper 15 to perform its function of retaining the sash-cords 6, its extremities are formed into hooks 20, which curve slightly inwardly toward the bottom of

the recesses 18. The sides of the sashes 4 and 5 are formed with longitudinal grooves 21, in which the sash-cords 6 are attached in the usual manner.

5 In operating the window when it is desired to have the sashes 4 and 5 disappear in the casement the lower sash 5 may be raised somewhat from its lowermost position, in which it is shown in Fig. 2. After it has been raised
10 in the manner suggested the sill 8 would be slid inwardly in substantially the position in which it is shown in Fig. 3. The sashes would then be forced downwardly into the chambers 9 and 10. In forcing the sashes
15 downwardly in this manner the sash-cords 6 would be found to lie in front of the keeper-plates 15 in the manner indicated in Fig. 5. In order to remove them from the path of the sill 8, so as to enable the same to be returned,
20 they may be pushed rearwardly into the recesses 18 until they are received behind the hooks or extensions 20 in the manner indicated in Fig. 6. When the sash-cords are stowed in this manner, the sill could be slid
25 back into place, as will be readily understood. In order to facilitate the return of the sashes to their normal position, the upper edges thereof are provided with enlarged recesses 22, in which small handles 23 would be countersunk, and these handles could be grasped
30 to draw the sashes upwardly, as will be readily understood.

In Fig. 7 is illustrated a modified arrangement for maintaining the sash-cords in the
35 recesses 18. When adopting this form of the invention, the upper edges of the sashes are provided with grooves 24, which extend to the sides of the sashes, as shown, and afford means for guiding plates 25, as shown. The
40 outer edges of these plates are recessed, as at 26, and their side edges are provided with notches 27. Springs 28, thrusting against the inner extremities of the grooves 24, tend to force these plates 25 outwardly. Catches 29
45 are provided, which may engage notches 27 in order to maintain the plates 25 in a retracted position. In Fig. 7 the plate used in connection with the sash 5 is held in this retracted position. However, when the plates 25
50 are released from the catches, as indicated in connection with the sash 4, the plates will be forced outwardly by the springs, and their outer extremities will engage the sash-cords, forcing the same rearwardly into the recesses,
55 as will be readily understood. It should be understood that the plates 25 in connection with their guides and springs are all counter-

sunk into the sashes, so that they offer no obstruction to the sliding in of the sill.

In practice where the sill of the window- 60 frame is located so near to the floor that the sashes could not be housed in the space between the floor and the sill it should be understood that the lower portion of the case- 65 ment would be extended below the floor, so as to enable the sashes to be received within the same in the manner described.

By means of the construction illustrated and described above a very simple arrange- 70 ment is produced, enabling the sashes to disappear within the casing. Moving the sashes out of the frame of the window is often desirable, and especially for the purpose of in- 75 creasing the ventilation. Such an arrangement is also desirable sometimes where it is necessary to move objects, such as safes, into a building through the window.

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

1. In a window construction, in combina- 80 tion, a casement, a sill movably mounted between the inner faces of said casement, sashes guided in said casement and adapted to be depressed into the space below said sill, sash- 85 cords supporting said sashes and normally lying in the path of movement of said sill when said sashes are depressed, and means for deflecting said sash-cords from their normal position adjacent to said sill.

2. In a window construction, in combina- 90 tion, a casement, sashes guided therein, sash-cords supporting said sashes, a sill adapted to slide in said casement, said sashes being depressible below said sill, said casement having recesses adjacent to said sill, and means for de- 95 flecting said sash-cords into said recesses.

3. In a building construction, in combina- 100 tion, a casement, sliding sashes mounted therein, said casement having a recess in the lower portion thereof into which said sashes may pass, a sliding sill, sash-cords in connection 105 with said sashes, said casement having recesses adjacent to said sill and adapted to receive said sash-cords, and a keeper projecting laterally across said recesses and adapted to re- 105 tain said sash-cords therein.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN J. MÜLLER.

Witnesses:

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