

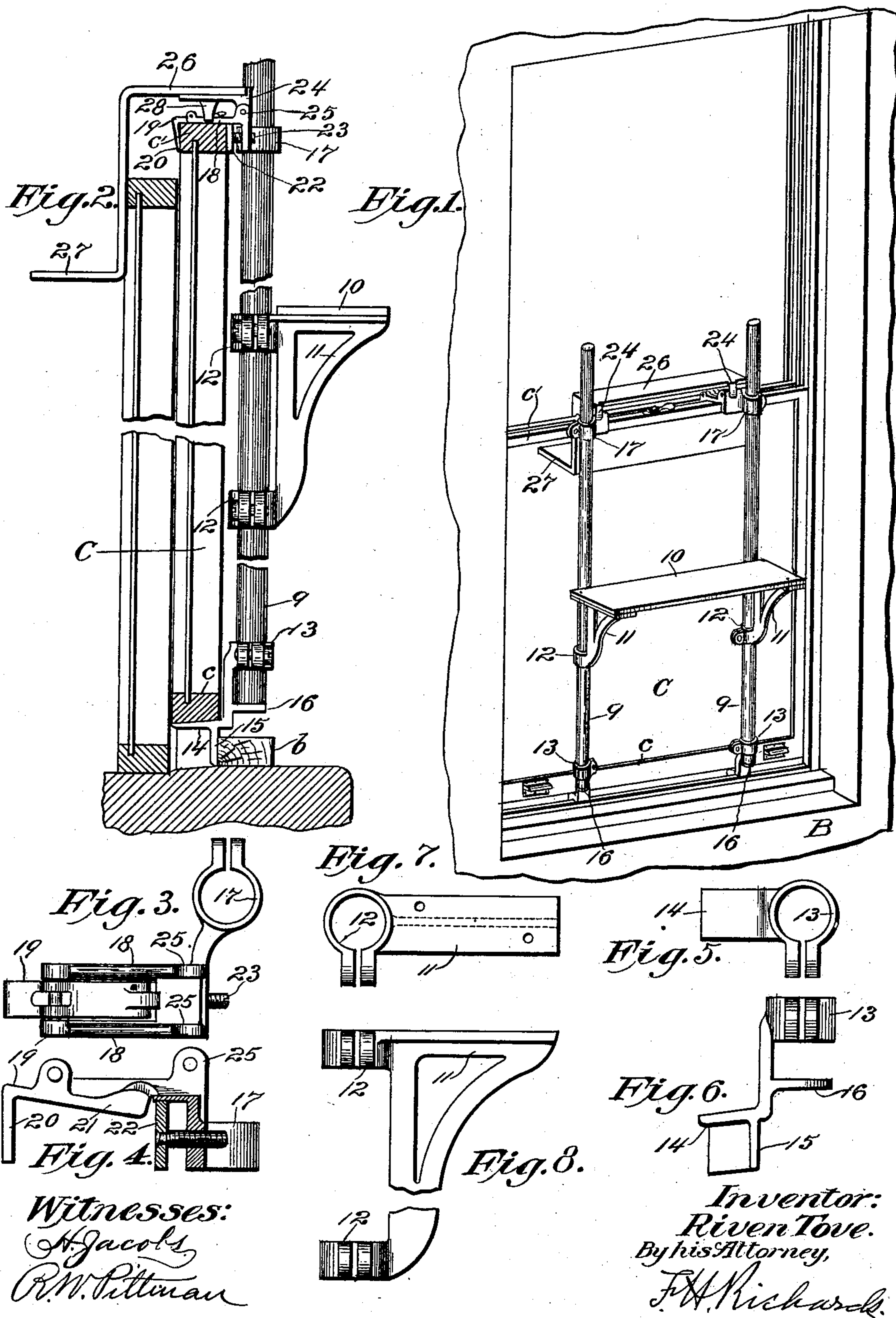
No. 698,762.

Patented Apr. 29, 1902.

R. TOVE.  
WINDOW BRACKET OR STEP.

(Application filed Oct. 5, 1901.)

(No Model.)





# UNITED STATES PATENT OFFICE.

RIVEN TOVE, OF SOUTH NORWALK, CONNECTICUT.

## WINDOW BRACKET OR STEP.

SPECIFICATION forming part of Letters Patent No. 698,762, dated April 29, 1902.

Application filed October 5, 1901. Serial No. 77,638. (No model.)

*To all whom it may concern:*

Be it known that I, RIVEN TOVE, a subject of the Czar of Russia, residing in South Norwalk, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Window Brackets or Steps, of which the following is a specification.

This invention relates to window brackets or steps, and has for its object to provide a bracket or step which may be securely but removably attached to a window-sash.

Another object of the invention is to provide a window-step which is adjustable vertically and which may be supported relatively near the glass.

A further object of the invention is to provide a window-bracket having a step on each side of the sash; and another object of the invention is to provide improved means for holding a window-bracket securely upon a window-sash and which is incapable of removal while bearing weight.

It is the usual practice in working about a window for the mechanic to work from the inside thereof and to straddle the meeting-rails of the sash and also at times to balance himself thereon during a part of the necessary work. In doing this the mechanic is liable to employ the mullions in the sash as a convenient mode of balancing himself upon the rail, which endangers the safety of the glass. Also there are sash which, using only one pane of glass, require no mullions, and in this instance the workman has considerable difficulty in getting himself properly located and balanced, so as to perform his duties. It is also very often inconvenient—for instance, by the use of a step-ladder—to get sufficiently close to the window to successfully carry on the work.

I provide a device which is carried by a sash and which is provided with one or more steps, so that the workman can not only reach any desired point in the progress of his operations, but he may also be as close to the window as is necessary or desirable.

The present improvement is therefore to provide a portable step which is supported by one or more stanchions or uprights, which are shown in the present instance as two, which are designed to be clamped to a sash and which is provided with one or more steps adjustable

upon said stanchions to meet the necessity of the situation and which stanchions are each provided with an upper and lower clamping device for securely maintaining the entire structure in position for the purposes hereinafter set forth.

In the drawings accompanying and forming a part of this specification, Figure 1 is a perspective view of the inside of a window, showing a form of my invention, which may be the preferred form, if desired, as applied to the sash. Fig. 2 is an enlarged vertical section of the same, parts being broken away. Fig. 3 is a top view of the uppermost bracket; Fig. 4, a side view thereof. Figs. 5 and 6 are similar views of the lowermost bracket. Figs. 7 and 8 are similar views of the step-bracket.

Like characters of reference refer to like parts in the various views.

In the present instance the improvement is shown applied to a lower sash C, which is provided with but one pane of glass and which is located in the usual window-frame B, the upper sash being lowered. The bracket comprises two stanchions 9 9, which may be of wood or any suitable material, and these are provided with a step 10, which may be adjustable on said stanchions, for which purpose suitable brackets 11 11 may be used, having clamps 12 12, adapted to be secured to the stanchions by means of set-screws. The stanchions are supported at the bottom by means of brackets carried thereby, which in the present instance are shown as comprising clamps 13, effective to engage the stanchions, which clamps may be provided with ears and set-screws for the purpose of adjustment. Depending from each clamp is shown a bracket having a portion 14 effective to engage the under side of the lower rail c of a window-sash, and from said portion 14 is a depending portion 15, effective to engage behind the lower stop, as b, of a window-frame. This lower bracket may also be provided with an outwardly-projecting lug or ledge 16, on which the stanchion may rest. The upper part of the device may be secured by some suitable means effective to engage the top rail of a window-sash, which in the present instance is shown as a bracket having a clamp 17 effective to embrace the stanchion and which, if desired, may be made



adjustable and for such purpose may be provided with ears and set-screws.

Carried by the clamps which are secured to the upper part of the stanchions are suitable devices for holding said stanchions to the sash, and these devices are in the form of a frame comprising a bifurcated member 18, having pivoted therein a dog 19, provided with a depending portion 20, which is depressed at an angle to a weighted arm 21, which latter normally hangs down in the bifurcated portion of the said member 18, so as to maintain the depending portion 20 in a vertical position. As is known, the face of the rail against which this depending portion 20 is designed to rest is beveled with respect to the top of said rail, and by this construction of a clamp device when the weighted arm 21 is lifted by the top portion of the rail the depending portion 20 will fit closely in against said bevel, thus making a snug fit at that portion of the rail, as well as the top thereof. The frame opposite the depending portion 20 may be provided with a suitable stop-face, which, if desired, may be adjustable toward and from said depending portion of the dog, and in the present instance is shown as comprising a plate 22, having an adjusting-screw 23. If desired, an additional step may be provided by pivoting hinges or brackets 24 to ears 25 upon the frames and securing to such hinges a pair of steps 26 27, one of which is shown in the present instance as being above the sashes, which are illustrated as being "doubled," and the other step as being on the opposite side of the sashes from the stanchions. In the present instance the device is shown as applied to the lower or inner sash of a window. In using the device after the upper and lower brackets have been adjusted to accommodate the size of the window-sash upon which it is desired to use the step the upper sash will be lowered and the lower sash slightly raised, and the upper bracket carrying the dog will be placed over the upper rail of the lower sash, the device being held in a slanting position relative to the vertical line of the sash, and upon bringing the stanchions down parallel to such vertical line and pushing the portion 14 of the lower bracket under the lower rail the pressure of the upper rail on the weighted arm 21 will act on the depending portion 20 of the dog, which will be forced strongly against the rail, thus securely holding the rail between the stop-face and such depending portion, after which the window-sash will be lowered, bringing the portion 15 behind the stop b; thus holding the device securely in place, when the step may be adjusted to any desired height, upon which step a workman may stand for the purpose of adjusting awnings on the outside of the window, fixing shades, or for any other purpose for which it is desired to get at the upper part of the window, the steps 26 27 forming convenient places whereon to lay

tools, or if the workman desires to get farther out of the window he may place his foot upon such steps. The upper steps, being pivoted, may be swung inward when it is desired to apply or remove the bracket from the sash, and when after it has been applied the steps may be swung outward, a detent 28 being applied to the bottom side of the hinge to bear upon the framework of the upper bracket and support the steps and prevent the same from breaking the glass.

In some cases it will be obvious that only one stanchion may be used, in which instance the steps will of course be of somewhat different area.

From the foregoing it will be seen that the device may be readily attached to a window with comparatively little work, and when the workman is through it may be detached by merely raising the sash slightly and drawing away the lower end of the stanchion and then slightly raising such stanchion to unclamp the upper brackets from the rail. It will also be noted that this device is adjustable to a sash of different heights as well as to those constructed of different thicknesses of material. It will be further noted that both the upper and lower clamping devices of this bracket are of such a character and construction as to positively prevent the accidental releasing of the device, thus preventing accident.

Having described my invention, I claim—

1. In a window step or bracket, the combination with stanchions, of means for engaging a window-frame and the lower rail of a sash, and effective to support the lower ends of said stanchions; means for engaging the upper rail of the sash and effective to support the upper ends of the stanchions; and a step carried by said stanchions.

2. In a window step or bracket, the combination with stanchions of means for engaging a window-frame and the lower rail of a sash, and effective to support the lower ends of said stanchions; of means for engaging the upper rail of the sash and effective to support the upper ends of the stanchions; and a step adjustable on said stanchions.

3. In a window step or bracket, the combination with stanchions adapted to be supported by a sash; of a step carried by said stanchions on each side of such sash.

4. In a window step or bracket, the combination with a stanchion adapted to be automatically clamped upon and supported by a sash; of a step carried by the stanchion.

5. In a window step or bracket, the combination with upright stanchions supporting a step, of a bracket carried by the lower portions thereof and provided with a stop-face to bear against the under side of a sash-rail; another bracket carried near the upper end of said stanchion and provided with a clamp embodying a dog pivoted to swing toward the stanchion and bear against one side of a rail the stop-face to bear against the other side of said rail, a weighted arm projecting from the



dog for normally and automatically swinging the dog away from said stanchion, said dog securely clamping against the rail when the latter raises the weighted arm.

5 6. In a window step or bracket, the combination of stanchions, means for supporting such stanchions upon a window-sash; of a step carried by said stanchions on the side of such sash opposite to that on which the stanchions are supported.

10 7. In a window-bracket, the combination of stanchions; a frame secured thereto; a stop-face carried by the frame, and adapted to bear against one side of a sash-rail; a dog pivoted to swing toward and from said stop-face, and to bear against the other side of said rail; and means effective to automatically swing said dog.

20 8. In a window-bracket, the combination of stanchions; a frame secured thereto; a stop-face carried by the frame, and adapted to bear against one side of a sash-rail; a dog pivoted to swing toward and from said stop-face, and to bear against the other side of said rail; and means effective to normally and automatically swing said dog away from said stop-face and upon the entry of the sash-rail between said dog and stop-face to swing said dog toward said rail.

30 9. In a window-bracket, the combination of stanchions; a frame adjustably secured thereto; an adjustable stop-face carried by the frame, and adapted to bear against one side of a sash-rail; a dog pivoted to swing toward and from said stop-face, and to bear against the other side of said rail; and means effective to automatically swing said dog.

40 10. In a window-bracket, the combination of stanchions; a frame secured thereto; an adjustable stop-face carried by the frame, and adapted to bear against one side of a sash-rail; a dog pivoted to swing toward and from said stop-face, and to bear against the other side of said rail; and means effective to normally and automatically swing said dog away from said stop-face and upon the entry of the sash-rail between said dog and stop-face to swing said dog toward said rail.

50 11. In a window-bracket, the combination of stanchions; a frame secured thereto; a stop-face carried by the frame, and adapted to bear against one side of a sash-rail; a dog pivoted to swing toward and from said stop-face, and to bear against the other side of said rail; and means, comprising a weighted arm, effective to normally and automatically swing said dog away from said stop-face and upon the entry of the sash-rail between said dog and stop-face to swing said dog toward said rail.

60 12. In a window-bracket, the combination of stanchions; a frame secured thereto; an adjustable stop-face carried by the frame, and adapted to bear against one side of a sash-rail; a dog pivoted to swing toward and from said stop-face, and to bear against the other side of said rail; and means, comprising a

weighted arm, effective to normally and automatically swing said dog away from said stop-face and upon the entry of the sash-rail between said dog and stop-face to swing said dog toward said rail; and a step supported by the stanchions.

13. In a window-bracket, the combination of stanchions; a frame secured thereto; an adjustable stop-face carried by the frame, and adapted to bear against one side of a sash-rail; a dog pivoted to swing toward and from said stop-face, and to bear against the other side of said rail; and means, comprising a weighted arm, effective to normally and automatically swing said dog away from said stop-face and upon the entry of the sash-rail between said dog and stop-face to swing said dog toward said rail; and a step adjustably supported by the stanchions.

14. In a window-bracket, the combination of stanchions; frames secured to the tops thereof; a stop-face carried by each frame and adapted to bear against one side of a sash-rail; a dog pivoted to swing toward and from said stop-face and to bear against the other side of said rail; means effective to normally and automatically swing said dog away from said stop-face, and upon the entry of the sash-rail between said dog and stop-face to swing said dog toward said rail; brackets secured to the bottoms of said stanchions and comprising portions effective to engage the side and bottom of the lower rail of a sash; and a portion effective to engage the stop on the lower portion of a window-frame.

15. In a window-bracket, the combination of stanchions; frames secured to the tops thereof; a stop-face carried by each frame and adapted to bear against one side of a sash-rail; a dog pivoted to swing toward and from said stop-face and to bear against the other side of said rail; means effective to normally and automatically swing said dog away from said stop-face, and upon the entry of the sash-rail between said dog and stop-face to swing said dog toward said rail; brackets secured to the bottoms of said stanchions and comprising portions effective to engage the side and bottom of the lower rail of a sash; and a portion effective to engage the stop on the lower portion of a window-frame; and a step carried by said stanchions.

16. In a window-bracket, the combination of stanchions; frames secured to the upper ends thereof; an adjustable stop-face carried by each frame and adapted to bear against one side of the upper rail of a sash; a dog pivoted to swing toward and from said stop-face and to bear against the other side of said rail; means comprising a weighted arm effective to normally and automatically swing said dog away from said stop-face, and upon the entry of the sash-rail between said dog and stop-face to swing said dog toward said rail; brackets secured to the lower ends of such stanchions and comprising means for adjustably securing said bracket thereto, a portion effective



ive to engage the side and bottom of the lower rail of a sash, a portion effective to engage the stop on the lower portion of a window-frame, and a ledge effective to support the stanchion; and a step carried by such stanchions.

17. In a window-bracket, the combination of stanchions; frames secured to the upper ends thereof; an adjustable stop-face carried by each frame and adapted to bear against one side of the upper rail of a sash; a dog pivoted to swing toward and from said stop-face and to bear against the other side of said rail; means comprising a weighted arm effective to normally and automatically swing said dog away from said stop-face, and upon the entry of the sash-rail between said dog and stop-face to swing said dog toward said rail; brackets secured to the lower ends of such stanchions and comprising means for adjustably securing said bracket thereto, a portion effective to engage the side and bottom of the lower rail of a sash, a portion effective to engage the stop on the lower portion of a window-frame and a ledge effective to support the stanchion; and a step adjustably carried by such stanchions.

18. In a window-bracket, the combination of stanchions; frames secured to the upper ends thereof; an adjustable stop-face carried by each frame and adapted to bear against one side of the upper rail of a sash; a dog pivoted to swing toward and from said stop-face and to bear against the other side of said rail; means comprising a weighted arm effective to normally and automatically swing said dog away from said stop-face, and upon the entry of the sash-rail between said dog and stop-face to swing said dog toward said rail; brackets secured to the lower ends of such stanchions and comprising means for adjustably securing said bracket thereto, a portion effective to engage the side and bottom of the lower rail of a sash, a portion effective to engage the stop on the lower portion of a window-frame; and a step carried by said stanchions on the side of the window-sash on which said stanchions are supported.

19. In a window-bracket, the combination of stanchions; frames secured to the upper ends thereof; an adjustable stop-face carried by each frame and adapted to bear against one side of the upper rail of a sash; a dog pivoted to swing toward and from said stop-face and to bear against the other side of said rail; means comprising a weighted arm effective to normally and automatically swing said dog away from said stop-face, and upon the entry of the sash-rail between said dog and stop-face to swing said dog toward said rail; brackets secured to the lower ends of such stanchions and comprising means for adjustably securing said bracket thereto, a portion effective to engage the side and bottom of the lower rail of a sash, a portion effective to engage the stop on the lower portion of a window-frame; a step carried by

said stanchions on the side of the window-sash on which said stanchions are supported, and a swinging step supported by said stanchions on the opposite side of the sash.

20. In a window-bracket, the combination of stanchions; frames secured to the upper ends thereof; an adjustable stop-face carried by each frame and adapted to bear against one side of the upper rail of a sash; a dog pivoted to swing toward and from said stop-face and to bear against the other side of said rail; means comprising a weighted arm effective to normally and automatically swing said dog away from said stop-face, and upon the entry of the sash-rail between said dog and stop-face to swing said dog toward said rail; brackets secured to the lower ends of such stanchions and comprising means for adjustably securing said bracket thereto, a portion effective to engage the side and bottom of the lower rail of a sash, a portion effective to engage the stop on the lower portion of a window-frame; a step carried by said stanchions on the side of the window-sash on which said stanchions are supported; and a pair of steps swingingly supported by said stanchions, one above said sash and the other on the opposite side from said stanchions.

21. In a window-bracket, the combination with stanchions carrying a step, of self-clamping means for supporting said stanchions on the sash.

22. In a window-bracket, the combination with stanchions carrying steps, of self-clamping means for supporting said stanchions on the sash, said means comprising a stop-face carried by a frame and adapted to bear against one side of the top rail; a dog pivoted to swing from said stop-face and to automatically clamp against the other side of said top rail.

23. In a window-bracket, the combination with stanchions carrying steps, of self-clamping means for supporting said stanchions on the sash, said means comprising a stop-face carried by a frame and adapted to bear against one side of the top rail; a dog pivoted to swing from said stop-face and to automatically clamp against the other side of said top rail, and means bearing on the sill and under side of the lower rail of the sash.

24. In a window-bracket, the combination of stanchions carrying a step; means for supporting said stanchions upon the upper rail of a window-sash; means for supporting the lower portion of said stanchions and comprising a bracket embodying a portion effective to engage the side and bottom of the lower rail of a window-sash, and a portion effective to engage the stop on the lower portion of a window-frame.

25. In a window-bracket, the combination of stanchions carrying a step; means for supporting said stanchions upon the upper rail of a window-sash; means for supporting the lower portion of said stanchions and comprising



ing a bracket embodying a portion effective to engage the side and bottom of the lower rail of a window-sash and a portion effective to engage the stop on the lower portion of a window-frame; and a ledge effective to support the stanchion.

26. A bracket comprising a clamp for securing the same to a stanchion; portions to engage the side and bottom of the lower rail of a window-sash; and a portion to engage the stop on the lower portion of a window-frame.

27. A bracket comprising a clamp for securing the same to a stanchion; portions to engage the side and bottom of the lower rail of a window-sash; a portion to engage the stop on the lower portion of a window-frame; and a ledge to support said stanchion.

28. In a window-bracket, the combination of a stanchion; means for clamping said stanchion upon the upper rail of a window-sash, and means for engaging the lower portion of the sash, the organization being such that the engagement with the lower portion of the sash is effective to maintain the clamping device in engagement with the upper rail.

29. In a window attachment the combination of a stanchion, means at the upper end to catch the upper rail of a window, means for supporting a lower portion of said stanchion comprising a bracket and body, and a portion effective to engage the said bracket to the lower rail of the sash.

30. The combination with upright stanchions adapted to be supported upon window-sash, of automatic means for engaging and clamping the upper ends of such stanchions to the top rail of the sash, and means for supporting the lower portion of said stanchions upon the sill.

31. In a window-bracket the combination with an upright stanchion, of means carried by the lower portion of said stanchion for engaging the window-frame on the under side of the lower rail of the sash, means for automatically engaging and clamping upon the upper rail of said sash and effective to support the upper end of said stanchion, said means being adjustable upon the stanchion.

32. A window-bracket comprising a step, supporting means for said step, means for

engaging and clamping the same automatically to the upper rail of a sash, and means for maintaining the same adjacent to the lower rail thereof.

33. In a bracket the combination of a stanchion supporting means for the upper end of said stanchion embodying an automatic clamp for engaging the rail, means for supporting the lower portion of said stanchion and embodying a bracket effective when in position to secure and lock the clamping means.

34. A window attachment comprising a supporting means having an automatic clamp to catch over the upper rail of a window-sash; means for maintaining the supporting means adjacent to the lower rail thereof; and a step carried by the supporting means.

35. A window attachment comprising a supporting means having an automatic clamp to catch over the upper rail of a window-sash, and means to catch the under side of the lower rail thereof, and a pair of steps carried by the supporting means.

36. A window attachment comprising a supporting means; means for catching the same upon the upper rail of a sash; means for catching the same upon the lower rail thereof; and a swinging step carried by the supporting means.

37. A window attachment, comprising a supporting means; means for catching it upon the upper rail of a sash; means for catching the lower rail thereof for maintaining the same adjacent to the sash and for maintaining the device upon the upper rail; and a pair of steps carried by the supporting means upon the side of the sash upon which said supporting means is located, and one of which steps swings from such support side of the sash to the side of the sash remote therefrom.

38. A window-bracket embodying means effective to engage the top rail of a sash; means adapted to slide under and engage the lower rail thereof and thereby effective to lock the top-rail-engaging means upon the sash; and means effective to hold the lower-rail-engaging means in place.

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Witnesses:

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