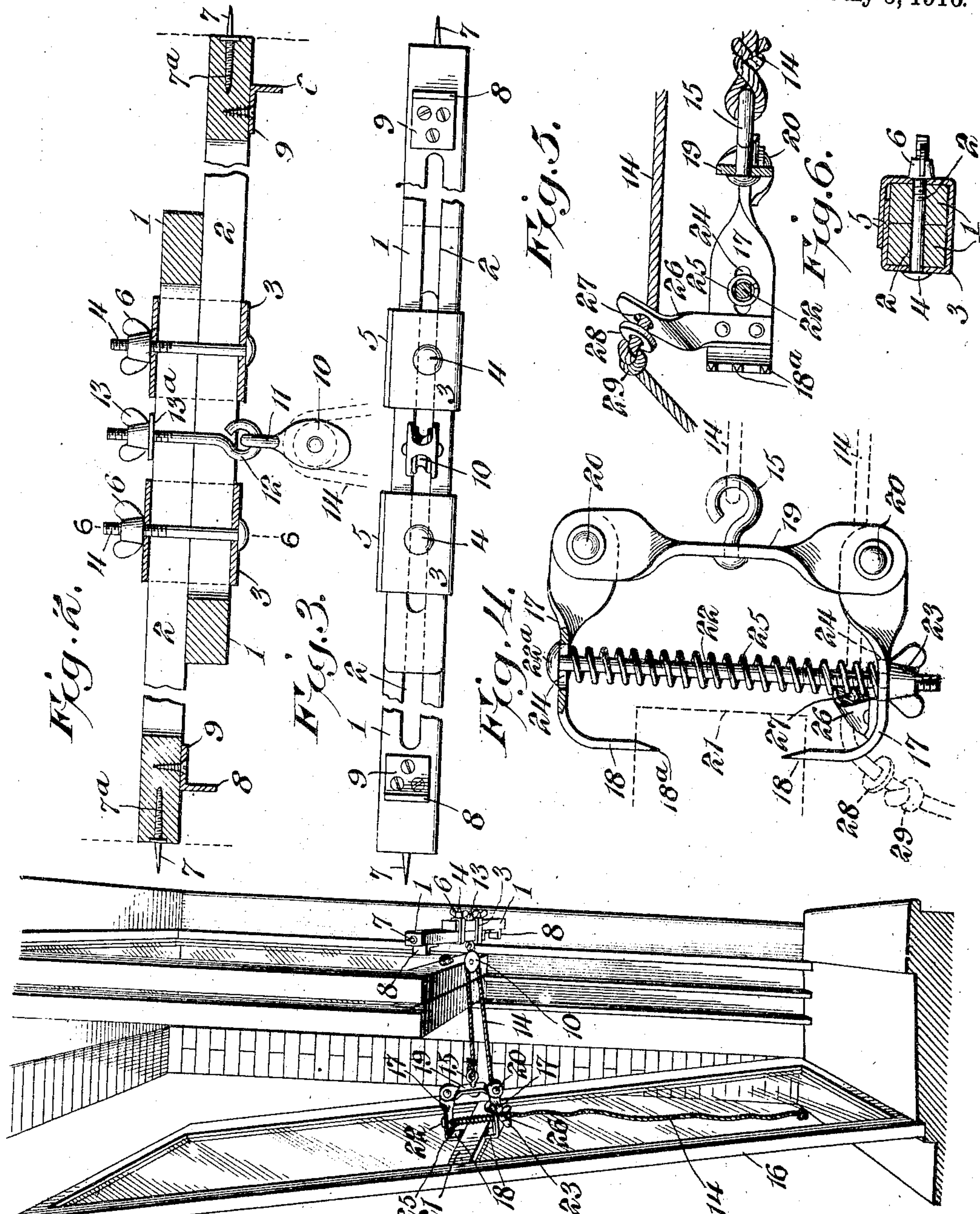


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 DEVICE FOR HANGING STORM WINDOWS, SCREENS, &c.
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963,417.

Patented July 5, 1910.



Witnesses
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Fig. 1.

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EDWARD CHARLES BROWN, OF BISMARCK, NORTH DAKOTA.

DEVICE FOR HANGING STORM-WINDOWS, SCREENS, &c.

963,417.

Specification of Letters Patent.

Patented July 5, 1910.

Application filed July 28, 1909. Serial No. 509,997.

To all whom it may concern:

Be it known that I, EDWARD C. BROWN, a citizen of the United States, residing at Bismarck, in the county of Burleigh and State of North Dakota, have invented a new and useful Device for Hanging Storm-Windows, Screens, &c., of which the following is a specification.

The invention relates to a device for hanging storm windows and screens.

The object of the present invention is to provide a simple, inexpensive and efficient device, adapted to enable one man with perfect safety to hang storm windows and screens, as well as to remove the same when desired.

With these and other objects in view, the invention consists in the construction and novel combination of parts hereinafter fully described, illustrated in the accompanying drawing, and pointed out in the claims here-to appended; it being understood that various changes in the form, proportion, size and minor details of construction, within the scope of the claims, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawing:—Figure 1 is a perspective view of a device, constructed in accordance with this invention and shown applied to a window. Fig. 2 is a longitudinal sectional view of the support or bracket. Fig. 3 is an elevation of the same. Fig. 4 is a detail view, partly in section, illustrating the construction of the gripping device. Fig. 5 is a detail sectional view of the same, illustrating the arrangement of the rope-receiving arm thereof. Fig. 6 is a transverse sectional view of the bracket or support, taken on the line 6—6 of Fig. 2.

Like numerals of reference designate corresponding parts in all the figures of the drawing.

The device comprises in its construction an adjustable support or bracket, composed of relatively slidable bars or members 1, provided with longitudinal slots 2 and slidably connected by metallic sleeves 3, which are pierced by adjusting screws or bolts 4. The sleeves 3, which embrace the inner overlapped portions of the bars or members 1,

are constructed of sheet metal, or other suitable material, having overlapped terminal portions 5, which are engaged by thumb nuts 6, with which the bolts are equipped. The overlapped terminal portions of the sleeves, which are free with respect to each other, are adapted to firmly clamp the bars or members when the thumb nuts are screwed tightly against the sleeves. The longitudinal slots and the adjusting screws or bolts enable the support or bracket to be varied in length to suit the width of a window, and the bars or members 1 are equipped at their outer ends with longitudinally projecting spurs 7 and laterally extending lugs 8 for engaging the window frame or casing. The longitudinally projecting spurs are preferably provided with threaded shanks 7^a, but they may be constructed in any other desired manner. They are adapted to be embedded in the window frame or casing when the bracket or support is arranged within the same, or between the sides thereof, whereby the bracket or support will be firmly secured within the window. The laterally projecting lugs 8 are preferably formed by L-shaped plates 9, secured to the side faces of the bars or members, and they are adapted to engage back of the window frame or casing when the bracket or support is fitted against the same interiorly of the room or apartment instead of between the sides of the window frame or casing.

The bracket or support is equipped with a pulley 10, the block or casing of which is provided with an eye 11 for enabling the pulley to be secured to the bracket or support by an eye bolt 12. The eye 11 is linked into the eye of the bolt 12, which passes through the slots 2 and which is equipped with a thumb nut 13, a washer 13^a being interposed between the same and a contiguous bar or member 1. The pulley receives a rope 14, or other flexible connection, arranged at one end to an eye 15 of a gripping device and adapted to be adjustably secured, as hereinafter explained, for holding or limiting the movement of a storm window or screen.

The gripping device is composed of approximately L-shaped jaws 17 having inwardly extending engaging terminal portions 18 and

pivotaly connected at their other terminals to a connecting cross piece 19 by rivets 20, or other suitable fastening devices. The terminal portions 18, which are preferably provided with teeth 18^a, are adapted to engage the central cross bar 21 of the storm window 16, whereby the device is connected with the storm window, as illustrated in Fig. 1 of the drawing. The transverse connecting bar 19 and the L-shaped jaws are provided with quarter bends to arrange their connected terminals flat against each other, but the gripping device may be constructed in any other desired manner, as will be readily understood. The L-shaped jaws are adjustably connected intermediate of their ends by a transverse bolt 22, provided at one end with a head 22^a and having a thumb nut 23 at the other end. The bolt, which passes through suitable slots 24 of the jaws, supports a coiled spring 25 interposed between and adapted to spread the jaws when the thumb nut 23 is unscrewed. One of the jaws is also equipped with a projecting arm 26, extending outwardly substantially at right angles to the inner arm of such jaw and having an opening 27 for the passage of the rope 14, as clearly illustrated in Fig. 5 of the drawing.

In hanging a storm window, the gripping device is engaged with the central bar and firmly clamped thereon. The movement of the flexible connection through the pulley and the opening 27 is limited by a stop, consisting of a washer 28 and a knot 29, located at the outer side of the washer and adapted to be formed in the rope at any desired point, whereby the stop is adjustable along the same. The stop is formed in the rope four or five feet from the end attached to the eye 15 to enable the storm window to be readily passed sidewise through the window frame or casing. The storm window is then turned to arrange it in an upright position, and it is drawn into the window and securely held in place by wrapping the rope around the thumb nut of the gripping device. The storm window may then be permanently fastened by screws, or other means after which the device is removed. In removing the storm window, the device is applied to the window frame and to the storm window, as before described, and the storm window is held while the screw or other fastening means are removed from the storm window. The rope is then slackened sufficiently to permit the storm window to tilt outwardly in the position illustrated in Fig. 1. This will enable the hands of the workmen to be introduced back of the storm window, which may then be removed with perfect safety. By employing a longer rope, the device may be used for hoisting windows and screens from the

ground to the windows in which they are to be placed. The gripping device may then be fastened to the window or screen at the upper ends thereof, which will enable the windows and screens to be hoisted in a straight position so as to prevent them from scraping against the walls of the building.

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

1. A device for hanging storm windows and screens including a support having means for fastening the same to a window frame and provided with a pulley, a clamp having jaws to engage a window sash or screen, and a rope connected to the clamp, passed around the pulley on the support and back again to the clamp and adjustably connected therewith.

2. A device for hanging storm windows and screens including an extensible support provided with terminal projections and having laterally extending lugs for engaging the sides of a window frame, a pulley mounted on the support, a clamp provided with jaws for engaging a sash or screen, and a cord connected to the clamp and passed around the pulley and back again to the clamp and adjustably connected therewith.

3. A device for hanging storm windows and screens including a support having means for fastening the same to a window frame, a gripping device composed of a transverse bar, jaws pivoted at one end to the bar and spaced apart by the same and having their other ends extended inwardly to form engaging portions, and an adjusting device connecting the jaws for causing the same to clamp a window or screen, a spring mounted on the adjusting device and interposed between the jaws for spreading the same, a pulley carried by the support, and a rope connected to the clamp, passed around the pulley and back again to the clamp and adjustably connected therewith.

4. A device for hanging storm windows and screens including a support, a gripping device composed of a transverse bar provided at an intermediate point with an eye, jaws pivoted to the ends of the bar, one of the jaws being provided with a guide, and means for adjustably connecting the jaws, and a flexible connection connected at an intermediate point with the support and attached at one end to the eye of the gripping device, the free end of the flexible connection being passed through the guide of the gripping device and having a stop for engaging the same.

5. A device for hanging storm windows and screens including a support having guiding means, a gripping device having opposite jaws, one of the jaws being provided with an arm having a guide opening, and a

flexible connection secured at one end of the gripping device and connected at an intermediate point to the support, the free end of the flexible connection being passed through
5 the opening of the said arm and having an adjustable stop for engaging the latter.

In testimony, that I claim the foregoing

as my own, I have hereto affixed my signature in the presence of two witnesses.

EDWARD CHARLES BROWN.

Witnesses:

HARRY C. SMITH,
W. S. ROHRER.