(No Model.)

W. BRUNER & E. W. KNEMEYER.

STOP BEAD FOR WINDOWS.

No. 458,095. Patented Aug. 18, 1891.

Fig: 1.

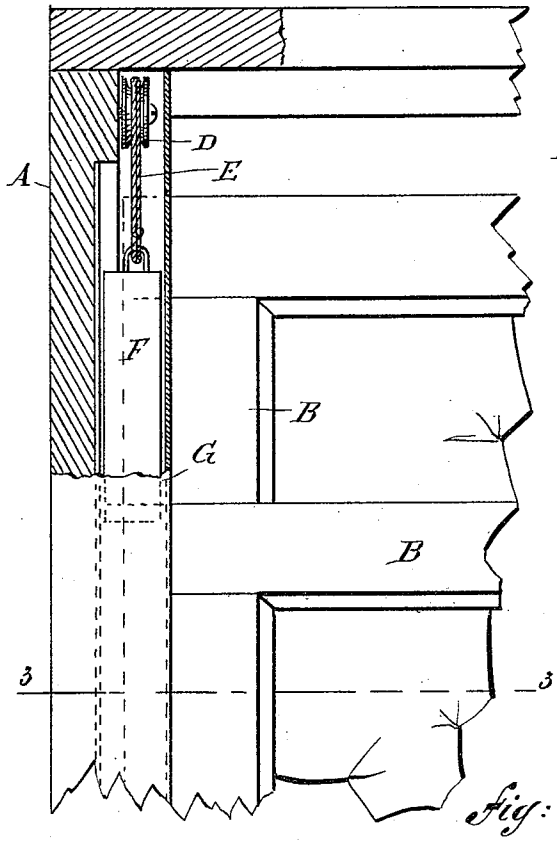


Fig: 2.

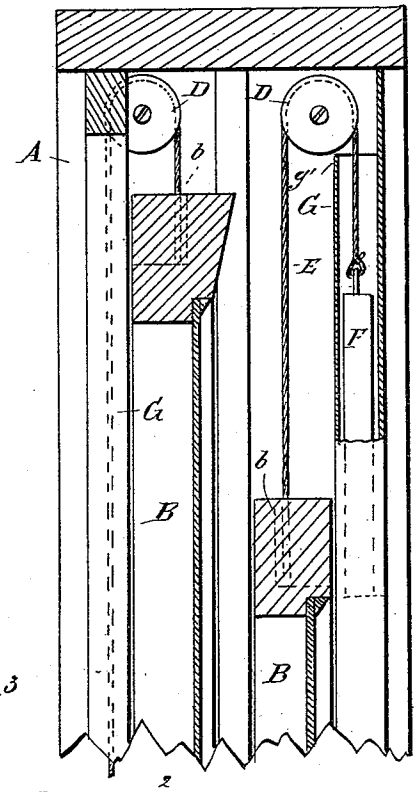
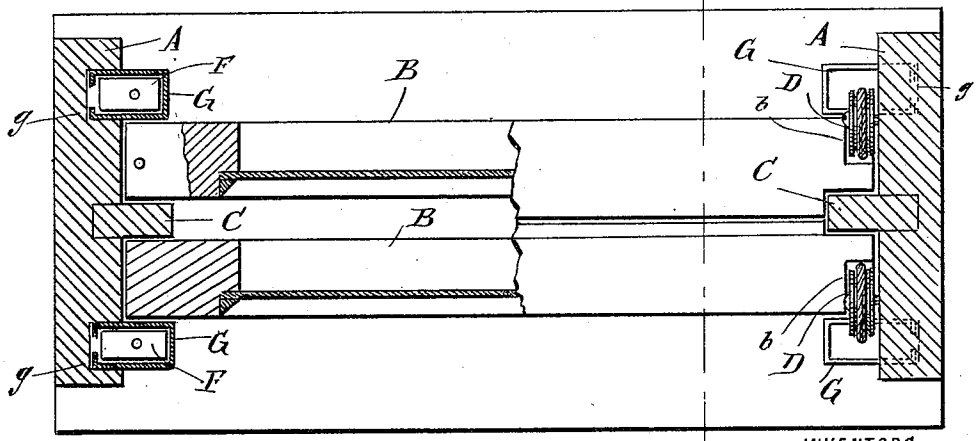


Fig: 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

WALTER BRUNER AND EDWARD W. KNEMEYER, OF FORT MADISON, IOWA.

STOP-BEAD FOR WINDOWS.

SPECIFICATION forming part of Letters Patent No. 458,095, dated August 18, 1891.

Application filed October 18, 1890. Serial No. 368,507. (No model.)

To all whom it may concern:

Be it known that we, WALTER BRUNER and EDWARD W. KNEMEYER, both of Fort Madison, in the county of Lee and State of Iowa, have invented new and useful Improvements in Stop-Beads for Windows, of which the following is a full, clear, and exact description.

Our invention relates to improvements in stop-beads for windows; and the object of the invention is to produce a stop-bead to take the place of the ordinary wooden beads and to construct the beads in such a manner that they may be easily applied to old window-frames as well as new, and will form convenient receptacles to carry the window-weights.

To this end our invention consists in certain features of construction and combination of parts, which will be hereinafter described and claimed.

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

Figure 1 is a broken front elevation, partly in section, of a window provided with the stop-beads embodying our invention. Fig. 2 is a broken vertical section on the line 2 2 of Fig. 3, and Fig. 3 is a broken sectional plan view on the line 3 3 of Fig. 1.

The window-frame A is of the usual construction, and mounted in the frame are the window-sashes B, which move vertically in the ordinary way, the said sashes having their meeting rails inclined so as to close closely together, and the sashes are separated by the parting-strips C in the usual way.

In connection with our stops, the window-pulleys D, instead of extending through the window-frame in the ordinary way, are pivoted flatwise to the frame above the window-sashes, as shown, the window-sashes being cut away at one corner, as shown at *b*, to enable them to close over the pulleys, and the window-cords E extend over the pulleys in the ordinary way, one end of each cord being attached to the window-sash, and the opposite end being fixed to a weight F, which moves vertically in the stop G.

The stops G are made of metal and, as shown, are mounted edgewise and vertically in grooves *g* in the window-frame on the outer and inner sides of the window-sashes. The stops are cut away at the top and on the inner sides to make room for the pulleys D, the inner edges of the pulleys being made to extend over the stops.

The stops are preferably open on one side, as shown, because they can be more cheaply made in this way, and they serve the ordinary purpose of holding the window-sashes in place and also form convenient receptacles for the window-weights F, and it will be found in practice that the window-weights work much more easily in the metal stops than in the ordinary wooden recesses of the window-frames.

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

The combination of a window-frame having vertical grooves *g g* at opposite sides of its middle bead C, the tubular metallic stop-beads rectangular in cross-section and entering said grooves, weights in said beads, and pulleys at the upper ends of the beads, with the sashes and cords passing therefrom over the pulleys to the weights, substantially as described.

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Witnesses:
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