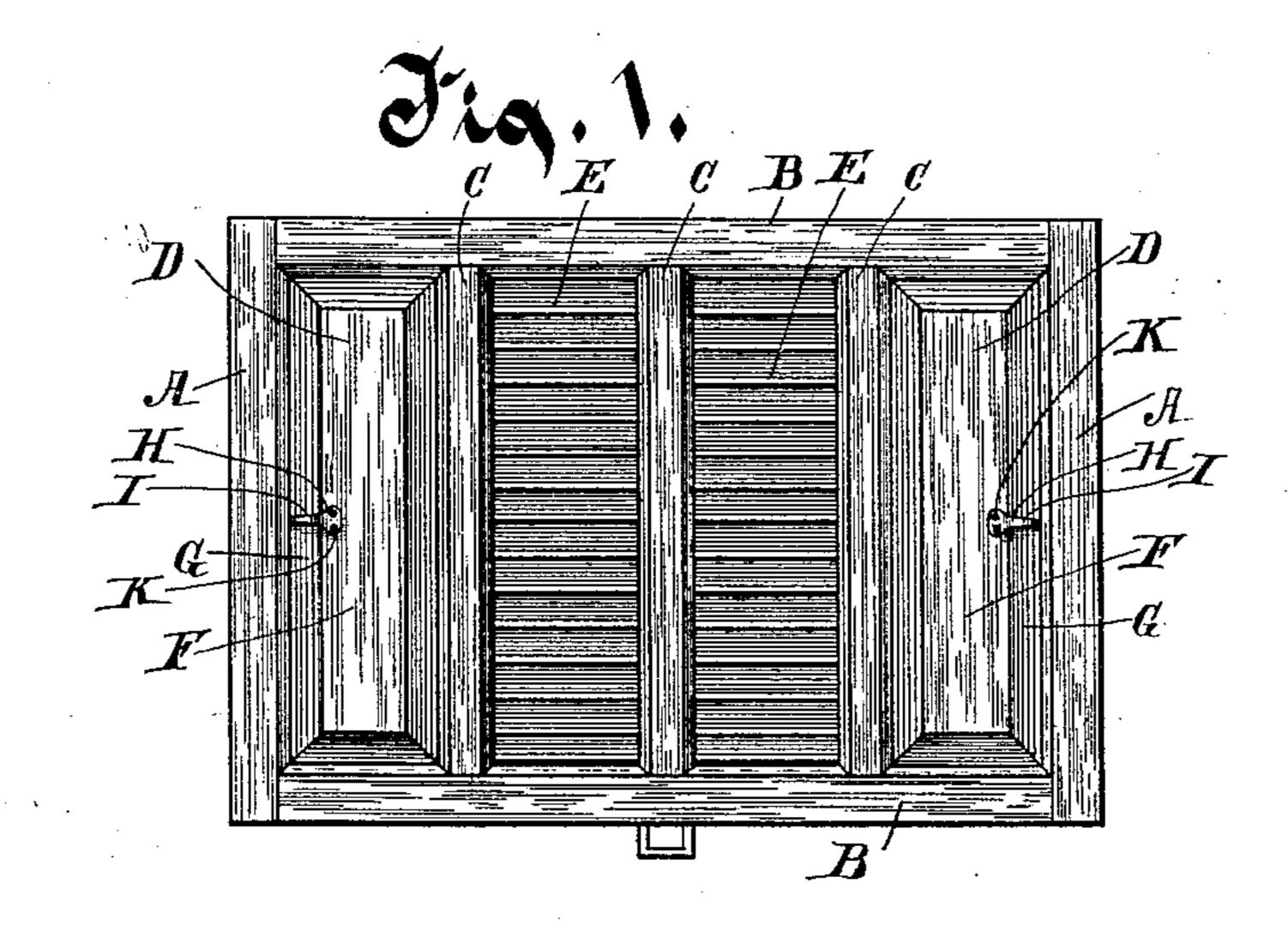
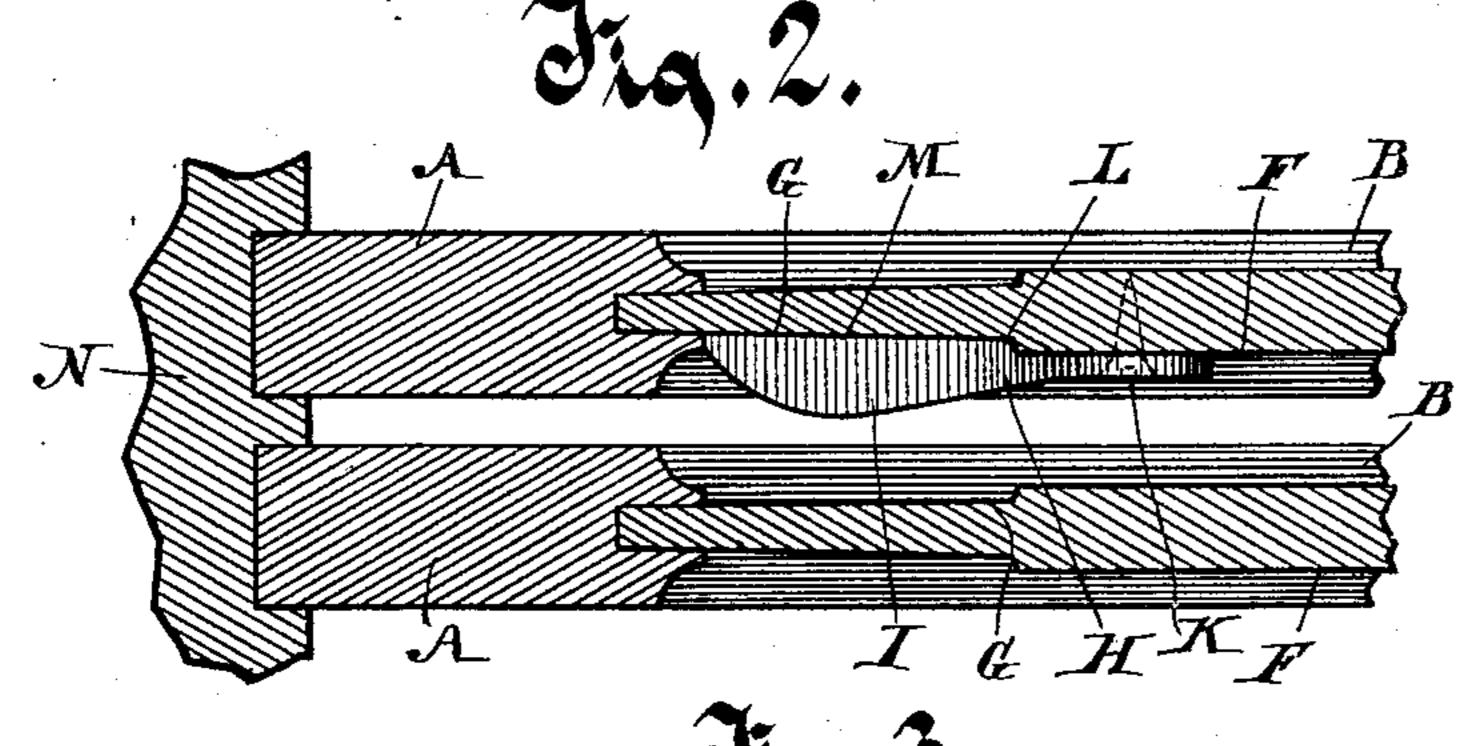
(No Model.)

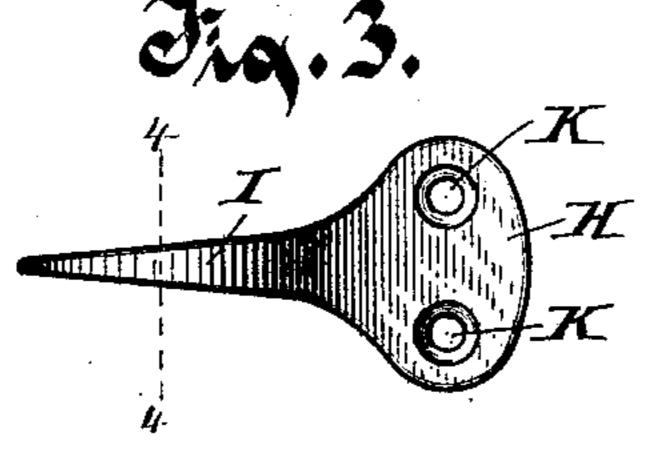
H. E. WILLER. SASH LIFT.

No. 481,320.

Patented Aug. 23, 1892.







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United States Patent Office.

HENRY E. WILLER, OF MILWAUKEE, WISCONSIN.

SASH-LIFT.

SPECIFICATION forming part of Letters Patent No. 481,320, dated August 23, 1892.

Application filed March 3, 1890. Serial No. 342,404. (No model.)

To all whom it may concern:

Be it known that I, Henry E. Willer, of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented a new and useful Blind-Lift; and I do hereby declare the following to be a full, clear, and exact description of said invention, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My improved device is intended and adapted solely for use in connection with vertically-sliding blinds, especially where there are two or more blinds used in connection with a window, and is constructed and arranged for use only with such blinds as contain solid panels having raised centers and beveled edges.

In the drawings, Figure 1 is a view of a sliding blind and my improved lift affixed thereto. Fig. 2 is a transverse horizontal section of a part of two vertically-sliding blinds as arranged in a window-frame, one of the blinds showing my device fixed thereto. Fig. 3 is a front view of my improved lift. Fig. 4 is a transverse section of the lift on line 4 4 of Fig. 3.

The vertically-sliding blind with which my device is adapted to be used consists of a frame composed of the stiles A A, rails B B, and bars C C, with panels D D occupying the two side compartments of the blind and preferably with slats E E in the inner compartments of the blinds. The panels D D are each formed with a centrally-raised part F and beveled margins G G, the edges of which are inserted and retained in grooves therefor in the adjoining stile, bar, and rails.

Lifts have heretofore been made formed and constructed to be affixed to the side or edge of a window-sash, but no such lift has been found that was adapted to be affixed to these sliding blinds, as the stiles in these blinds are very thin, being ordinarily only five-eighths of an inch in thickness, which is not sufficient to receive the tang or fastening part of the lift into the stile without splitting it, and these blinds are located very near to each other in the window-frame, so near, in fact, as not to permit a lift to be placed on the side of the stile to project outwardly therefrom for any considerable distance.

My improved lift is constructed of metal and consists of a flat plate H and a laterallyprojecting arm or handle I. The plate H is flat on the under side and is adapted to be 55 placed against the center-raised part F of the panel D and to be secured thereto by very short screws through the apertures K K, turning into the panel. The arm I has a shoulder L constructed to fit against the edge of 60 the raised part of the panel D, and its inner edge M is inclined to the under surface of the plate H to such extent as to fit closely onto the beveled surface of the margin G between the edge of the center-raised part and the 65 edge of the stile. This arm I is also preferably beveled inwardly from its outer edge toward its inner inclined edge, as shown in the cross-section in Fig. 4. This beveling the arm I inwardly from its outer edge is the pref- 70 erable form of construction, whereby the arm, which of necessity is quite narrow, is better adapted to be caught and held onto by the thumb and fingers. As the centrally-raised part F of the panel D is somewhat thinner than 75 the stile A, sufficient room is had to attach this lift to the blind, and yet permit two or more blinds to be located near each other in the window-frame N and pass each other freely.

What I claim as new, and desire to secure 80 by Letters Patent, is—

1. A blind-lift constructed of metal having a plate H, provided with a flat inner surface and with apertures K K, and an arm I, in-

tegral with the plate H, having a shoulder L 85 and an inner edge M, inclined to the flat inner surface of the plate H, substantially as de-

scribed.

2. The combination, with a sliding blind having a frame containing a panel provided 90 with a centrally-raised part, as F, and a beveled margin, as G, of a metal lift having a plate H, provided with a flat inner surface fitted and secured to the surface of the raised central part of the panel and having a shoulder L fitted to the edge of the centrally-raised part of the panel, and an inclined edge M fitted to the surface of the beveled margin G of the panel and extending from the centrally-raised part of the panel to the edge of the stile, 100 substantially as described.

3. In a blind constructed for vertical move-

ment, the combination, with a frame and a panel fixed in the frame, of a metal blind-lift one part of which has a flat inner surface placed against the surface of the panel and secured thereto by screws or equivalent device and another part of which projects laterally along the panel from the flat-surfaced part, the projecting part being of sufficient width outwardly from the panel to form a

catch or handle to be caught by the fingers of roa person, substantially as described.

In testimony whereof Iaffix my signature in presence of two witnesses.

HENRY E. WILLER.

Witnesses:
C. T. BENEDICT,
ANNA FAUST.