(No Model.)

4 Sheets—Sheet 1.

J. KAUFMAN.

WINDOW GUARD.

No. 347,717. Patented Aug. 17, 1886.

Fig. 1.

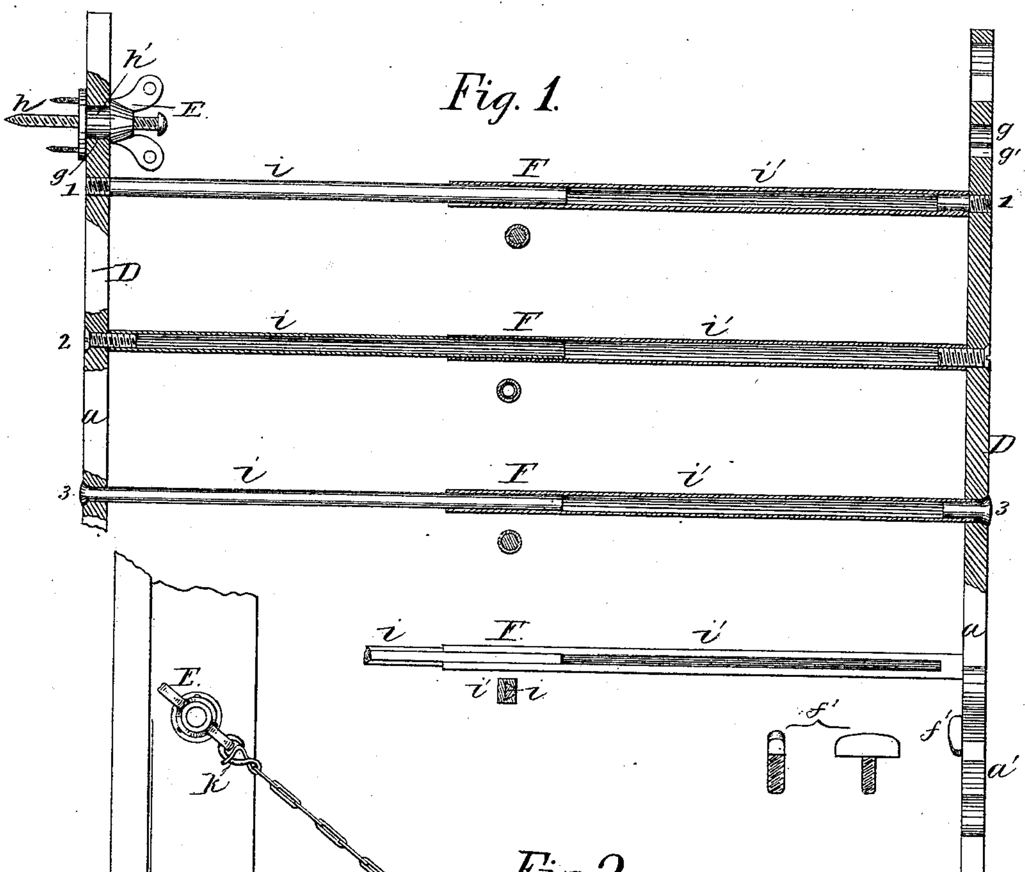
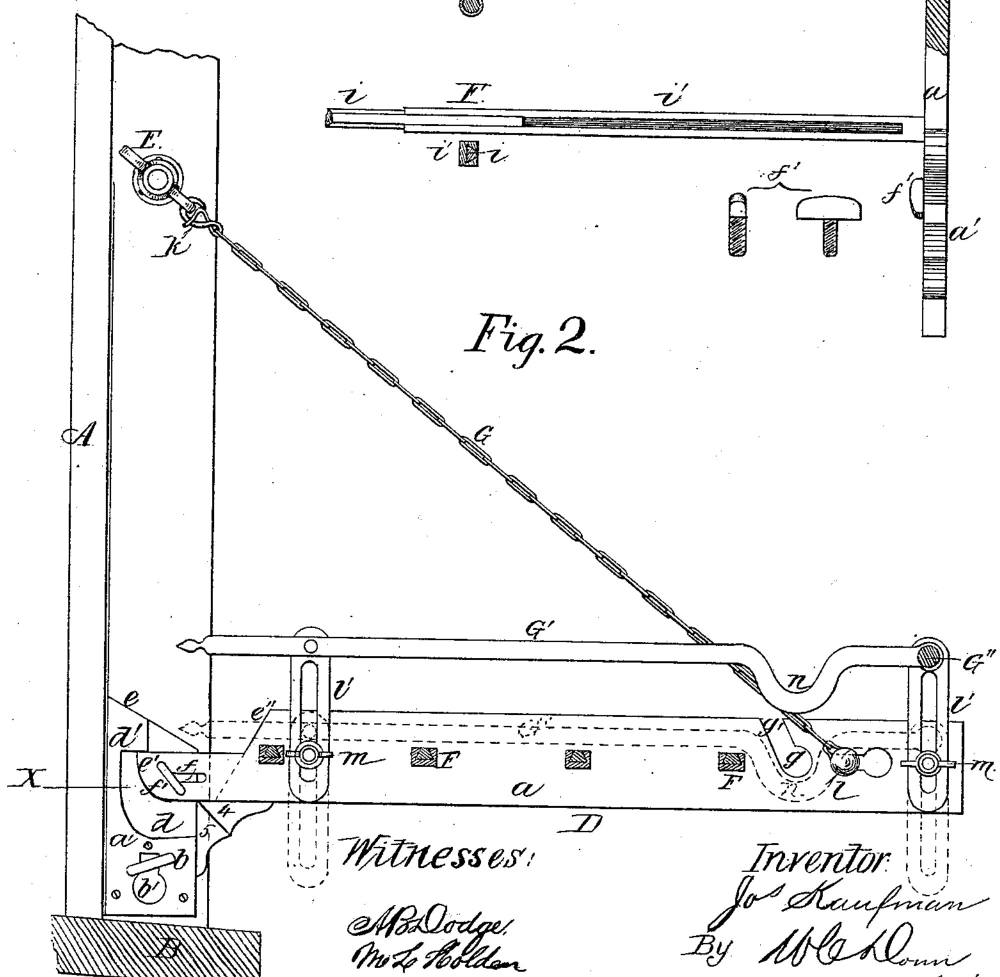


Fig. 2.



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(No Model.)

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Fig. 3.

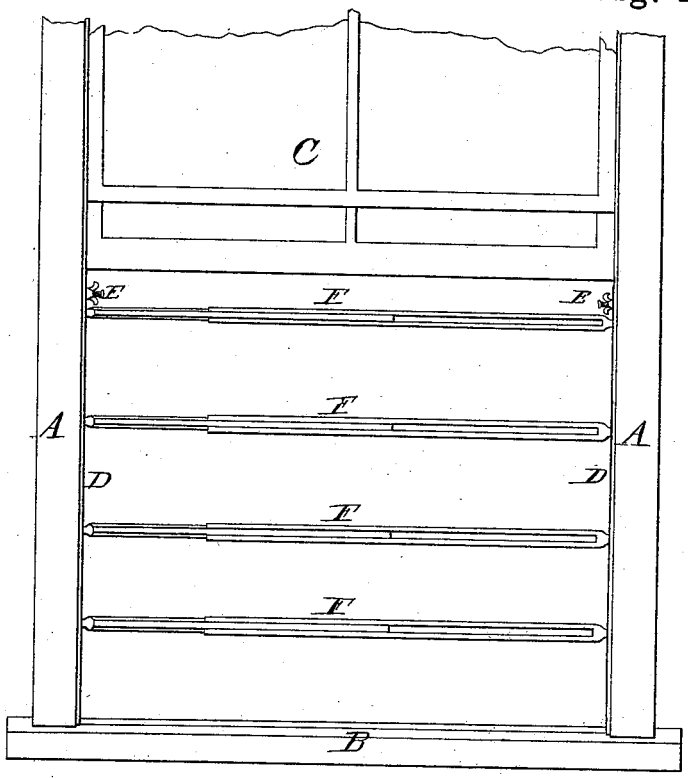
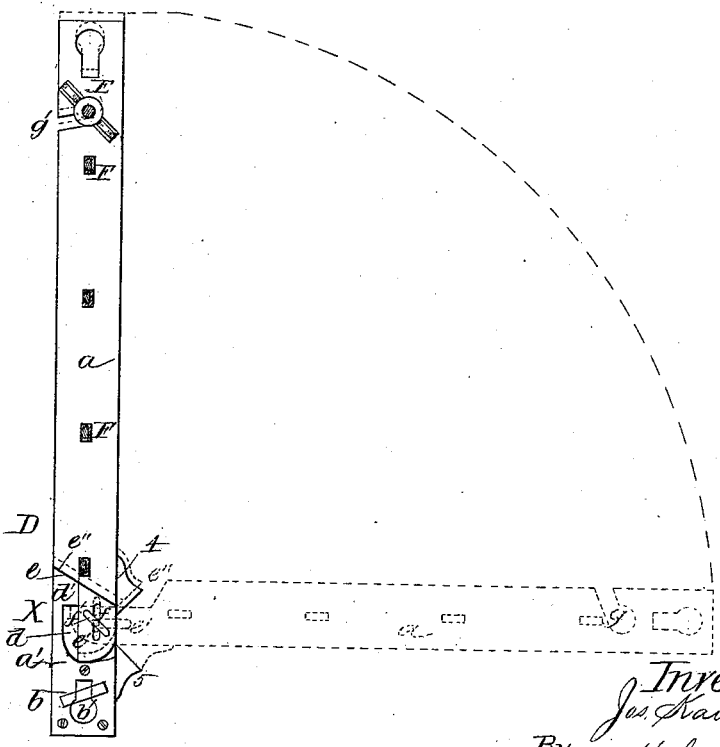


Fig. 4.



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WINDOW GUARD.

No. 347,717. Patented Aug. 17, 1886.

Fig. 5.

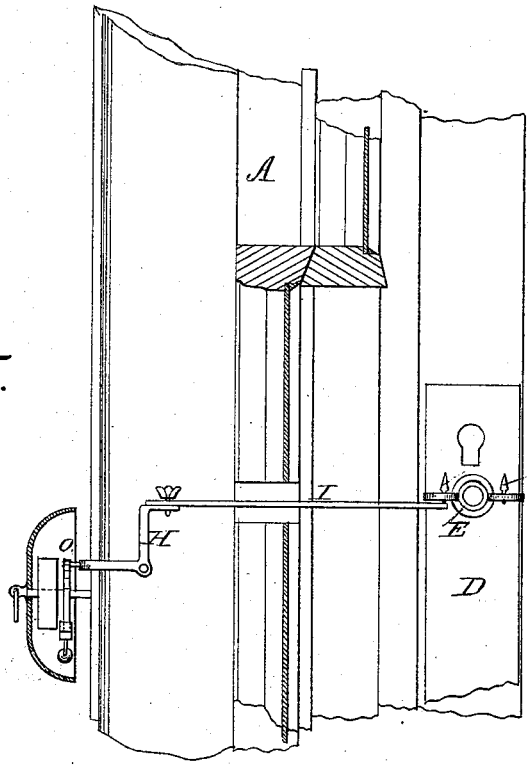


Fig 5a

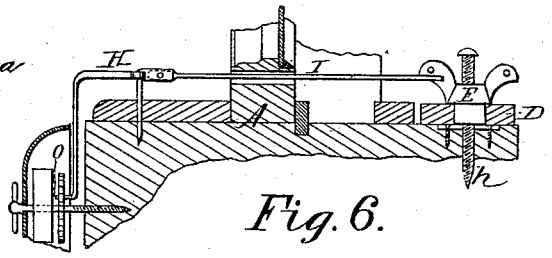


Fig. 6.

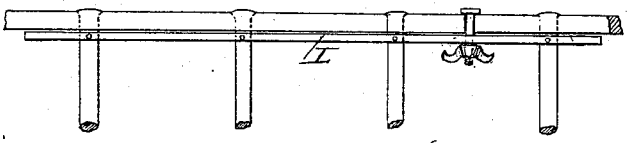
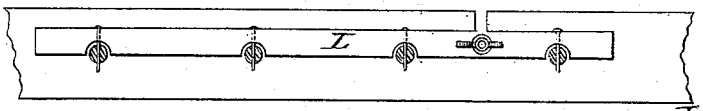


Fig. 6a.



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(No Model.)

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WINDOW GUARD.

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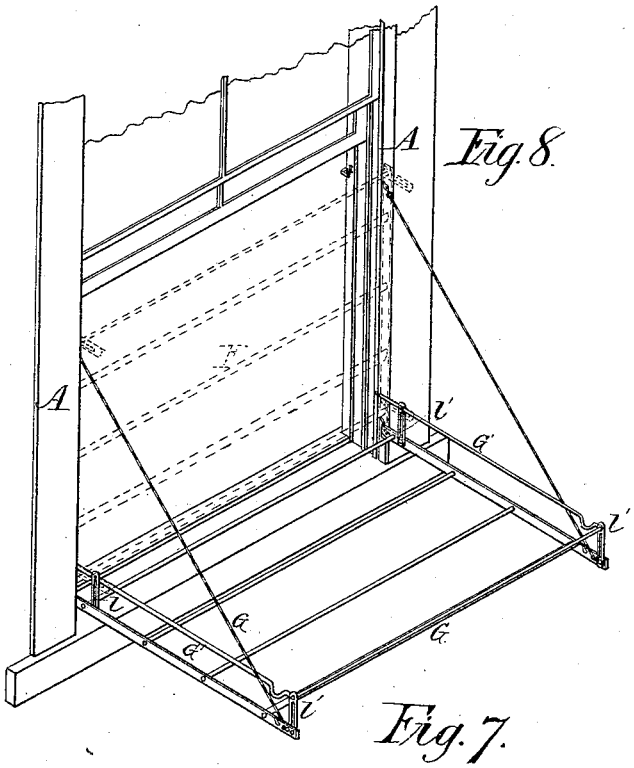
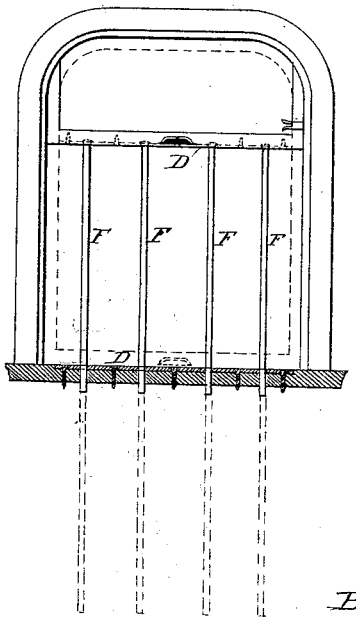


Fig. 8.

Fig. 7.



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UNITED STATES PATENT OFFICE.

JOSEPH KAUFMAN, OF NEW YORK, N. Y., ASSIGNOR TO JACOB SHAMBERG, OF SAME PLACE.

WINDOW-GUARD.

SPECIFICATION forming part of Letters Patent No. 347,717, dated August 17, 1886.

Application filed December 15, 1885. Serial No. 185,751. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH KAUFMAN, a citizen of the United States, residing at New York, in the county and State of New York, have invented a new and useful Window-Guard, of which the following is a specification.

My invention relates to means for preventing accidents from falling out of windows and to the protection of houses against the entrance of thieves through open windows.

The object of the invention is, first, to provide a guard which can be readily adjusted to windows of different widths; secondly, to arrange the guard so that it can be removed from the window when an unobstructed opening or view is desired without detaching it from the window-frame; thirdly, to adapt the guard to be used as a balcony when not in use as a guard.

In the accompanying drawings, Figure 1 is a detailed sectional view of the guard, showing the cross-bars made in various ways and different modes of connecting them with the side bars. Fig. 2 is a sectional side elevation of the window-guard attached to the window-frame, the guard being lowered to the position it occupies when used as a balcony. Fig. 3 is a front elevation of a window with the guard in position. Fig. 4 is a sectional side elevation of the guard, the solid lines showing it as fastened to the window-frame, and the broken lines showing the mode of lowering it. Fig. 5 is a vertical sectional detail of the window and guard and an alarm attachment therefor. Fig. 5ª is a horizontal sectional detail of the same. Fig. 6 is a top edge view, and Fig. 6ª is a side view, of an attachment for fastening the cross-bars to the side bars of the guard. Fig. 7 represents a guard applied to a car-window. Fig. 8 is a perspective view of a window and the guard applied thereto, the solid lines showing the guard lowered and forming a balcony.

Referring to the drawings, A represents the window-frame, B the sill, and C, Fig. 3, the sash. Blinds or shutters may be hung to either the inside or outside of the window, in the usual manner.

The guard consists of side bars and cross-bars connected therewith, which cross the window-opening from one side of the frame to the other.

D D are the side bars. They are composed of two parts, *a a'*, connected together by a peculiar joint, X, which permits the part *a* to be turned from a vertical to a horizontal position, as shown. The part *a'* is high enough only to allow the part *a*, which is hinged to it, to be dropped to a horizontal position without interference from the window-sill. The part *a'* is rigidly attached to the side of the window-frame, being fastened by a thumb-screw, *b*, passed through a button-hole, *b'*, into the window-frame, and ordinary screws in addition thereto, as shown. In the part *a'*, above its fastening-screws, is a halved depression or recess, *d*, which extends from the front edge about two-thirds of the width, the remainder being the full thickness, and forming a shoulder, *d'*, at the upper part of the recess. The top *e* of part *a'* is cut to an angle of about forty-five degrees. The lower end, *e'*, of part *a* is likewise made of half the thickness of the upper part, and also of half the width. The end *e'* being placed in the recess or depression *d*, the two parts are thus halved together, the joint being the same thickness as the side bar. The end *e''* of part *a*, at the junction with the projecting end *e*, is formed to an angle of forty-five degrees, whereby, when the part *a* is turned to an upright position, the ends of the two parts *a a'* come together with a close joint, as shown in Fig. 4. The end *e'* is provided with a longitudinal slot, *f*, through which a screw, *f'*, is passed into part *a'*, and thus connects the two parts together. Screw *f'* may be an ordinary round-head screw or pivot, if the guard is to be permanently attached to a window; but if it is to be used for stores, warehouses, and other large buildings as a safety-guard when washing the windows, &c., a thumb-screw can be used. In such cases the lower parts, *a'*, can be permanently attached to the window-frames, and the upper part, *a*, with its cross-bars and other attachments be removed from window to window as the work proceeds. For such purposes a screw or pivot having a flat head which will pass through the slot and remain connected with part *a'* should be employed.

The parts *a* of the side bars are provided with

holes *g*, connected with the upper or inner edge of the bar by an inclined slot, *g'*. In the window-frame for each side bar is placed a screw, *h*, provided with a disk, which may be fastened to the frame by screws or pins, and a threaded extension on which is placed a thumb-nut, E, the end of the extension being headed to prevent the thumb-nut from coming off. The thumb-nut has a short sleeve, *h'*, about as long as the side bars are thick. The screw *h* is placed in such a position as to enter the hole *g* in the side bars when the latter is in its vertical position. When the guard is raised, the upper end of slot *f* rests on the pivot or screw *f'*, and the screw *h* will not enter the slot *g'*. As it is intended that the side bars shall hang on the screws *h*, or the extensions of the thumb-nut, the construction of the lower connection is arranged to permit the parts *a* of the side bars to be lifted, for which purpose the slots *f* are provided; hence, when the side bars are raised to a nearly vertical position, the guard is lifted, the slot *g'* will pass over screws *h* and allow said screw to enter and pass into holes *g*. This brings the side bars to a vertical position parallel to the sides of the window-frame and window, and the guard is hooked over said screws. This operation is illustrated in Fig. 4 by the dotted lines. To prevent injury to the thread of screws *h*, the thumb-nut sleeve is arranged to enter the slots and holes, and thus bear the weight of the guard, as shown in Fig. 1. When the guard is raised in the manner just stated and hooked on the screws, the thumb-nut is screwed up until it bears against the side bar, and thus fastens the guard in its vertical position.

The cross-bars F are composed of two parts, *i i'*, which connect, respectively, with the left and right hand side bars, as shown, and with each other at the center by a sliding or telescopic joint. Parts *i* may be a solid rod, tube, or a flat plate with a dovetailed rib running lengthwise thereof on one side, and parts *i'* may be a tube or a rectangular plate with a dovetailed groove on one side. All these forms are shown in Fig. 1. They connect together by a sliding joint, so that they can be lengthened or shortened at will, to adapt the guard to be placed in windows of different widths. The cross-bars are detachably connected with the side bars. For this purpose they may connect with the side bars by a screw-connection, as at 1, Fig. 1, or by a separate screw passed from the outside into the ends of the tubes, (when tubes are used,) which are screw-threaded for the purpose on their inside surface, as at 2, Fig. 1; or the ends of the cross-bars may be provided with rivet-heads, as shown at 3, Fig. 1. The latter is the preferred mode.

When the guard is lowered to a horizontal position, it is sustained in that position by several devices, which will now be described, reference being had to Fig. 2. When the side bars reach a horizontal position, the extremity of end *e'* bears against the shoulder *d'*, which may be re-enforced or thickened, so as to be strong enough to sustain the strain put upon it. In addition to this, lugs 4 5 are placed, respectively, on the edges of parts *a* and *a'*, which come together and form a bracket. This bracket may, however, be placed on one only of the two parts and be made long enough to reach the edge of the other part when lowered; or the end of the bracket may be forked, so that the edge of the part which bears against it will enter the fork and prevent the guard from swaying sidewise and straining the pivots. These devices for supporting the guard may be sufficient; but as it is intended that it shall be used as a balcony, on which articles may be placed for airing, or flowers, and in emergencies as a temporary fire-escape or refuge for occupants of the house when driven out of the windows, a strong and reliable support is provided. This consists of chains G G, which connect at one end by hooks *k* with the thumb-nuts E, which are provided with holes for the purpose, as shown, and at the other end with the side bars by buttons *l*, entering button-hole slots in the side bars, as clearly shown in Fig. 2. In place of chains jointed rods may be used. These supports enable the guard when lowered to sustain any weight which may be put upon it; and the chains also furnish means for raising the guard to a vertical position. The chains may be readily detached from the side bars of the guard by slipping the button along the slot until the head will pass through the hole. The hook used is provided with a tongue, which will prevent its being detached by a child.

When the guard is used as a balcony, it may sometimes be necessary to have sides thereto, in order to prevent the articles placed thereon from being blown off. I provide for this purpose side bars or railings, G', and end bar or railing, G'', which connect with slotted links *l'*, held by set-screws and thumb-nuts *m*. The side bars are provided with bends *n*, which fall below the holes *g* in the side bars, and thus avoid interfering with connecting the guard with the screws E when raised. The bars G' G'' must be adapted to drop below the edge of the side bars to the position indicated by the dotted lines, Fig. 2.

An alarm attachment is illustrated in Figs. 5 5ª. This is to prevent tampering with the guard when it is in position to prevent entrance from the outside. It consists of an alarm-bell attached to the inside of the window-frame, and having its ratchet-wheel engaged by a pawl, *o*, forming one end of a rock-lever, H, pivoted to the window-frame. The opposite end of said lever connects by a set-screw with a rod, I, which passes through a slot in the frame of the window-sash, its outside end reaching just under the adjacent wing of the nut E. The rod being rigidly connected with the rock-lever, when one attempts to turn the nut the rod is depressed, the lever turned on its fulcrum, and the pawl detached from the ratchet, whereupon the alarm is sounded.

To prevent the cross-bars from slipping out when the guard is down, an attachment, L, having pins passed through the cross-bars and fastened to the side bars by a button and set-screw, may be employed.

The guard may be applied to car-windows in the manner shown in Fig. 7, one side bar being fastened to the bottom of the window-sash and the other below the sill, the cross-bars being made in one piece and sliding through holes in the lower side bar. Sharp points or spurs may be applied and screwed to the wings of the thumb-nut, so as to prevent them from being turned by one seeking to effect an entrance by lowering the guard from the outside.

Instead of wings to the nut E, it may be provided with a square end, so as to be operated by a wrench or key.

The joint X may be used for folding chairs and for various other purposes.

I claim—

1. In a window-guard, the combination of cross-bars with side bars made in two parts, one of which is fixed to the window-frame and the other hinged to the fixed part, and which can be adjusted from a horizontal to a vertical position, substantially as specified.

2. The combination of the side bars composed of two parts, *a a'*, the part *a'* provided with the slotted opening *g*, and the screw *h*, provided with the nut *h'*, substantially as specified.

3. The side bars, D, composed of parts *a a'*, the part *a* having a reduced end, *e'*, provided with a slot, *f*, and the part *a'* having the recess or depression *d* and shoulder *d'*, substantially as specified.

4. The combination of the two-part side bars, the part *a* whereof having one end, *e'*, provided with the slot *f*, and the other end provided with the slotted opening *g*, with the screw *h* and nut *h'*, substantially as specified.

5. The combination of the two-part side bars, the part *a* whereof being adjustable to a horizontal position, and the chain G, connected with part *a*, and nut E, substantially as specified.

6. The combination of the adjustable part *a* of the side bars with the adjustable railing-bars G' G'', substantially as specified.

7. In a window-guard, the combination of side bars attachable to and detachable from the sides of the window-frame with two-part extensible cross-bars connected together by a dovetailed joint, and detachably connected with the side bars, substantially as described.

8. The combination of side bars, cross-bars, and locking attachments L, substantially as specified.

9. The combination of the guard having the adjustable side bars and the nuts *h'*, to fasten the guard in the window, and the alarm-bell, lever H, and rod I, substantially as specified.

10. A joint for a two-part bar and similar articles, consisting of the part *a*, provided with a reduced end, *e'*, and the part *a'*, provided with the depression or recess *d* and shoulder *d'*, and a suitable connecting-pivot, substantially as specified.

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