July 29, 1924. 1,502,833

F. KITZELMAN

WINDOW GUARD

Filed Feb. 12, 1923

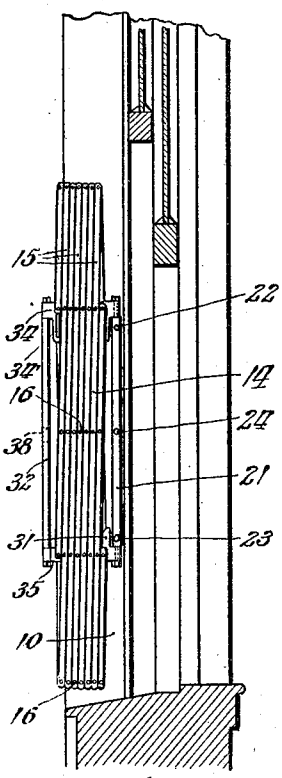


Fig. 2.

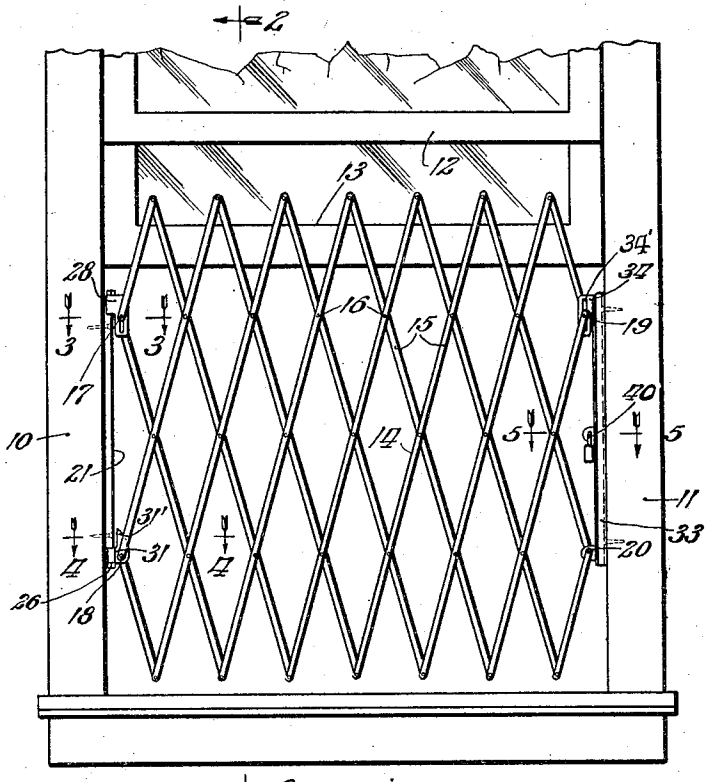


Fig. 1.

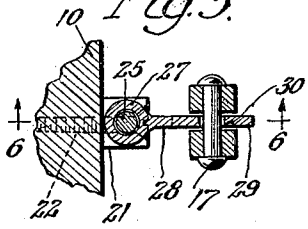


Fig. 3.

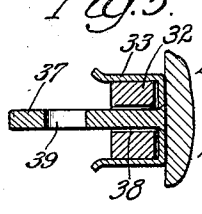


Fig. 5.

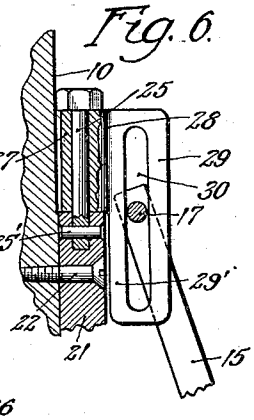


Fig. 6.

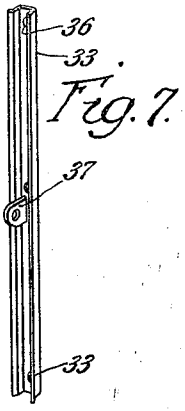


Fig. 7.

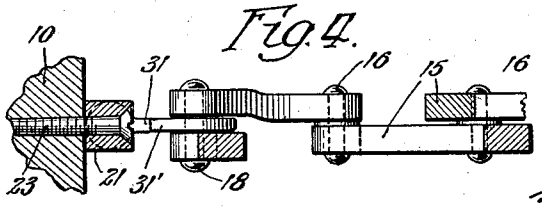


Fig. 4.

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# UNITED STATES PATENT OFFICE.

FRANK KITZELMAN, OF CHICAGO, ILLINOIS, ASSIGNOR TO ACORN WIRE & IRON WORKS, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

## WINDOW GUARD.

Application filed February 12, 1923. Serial No. 618,481.

*To all whom it may concern:*

Be it known that I, FRANK KITZELMAN, a citizen of the United States, and resident of Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Window Guards, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to window guards, and is more particularly concerned with folding lattices or collapsible grilles for windows, doors and the like, and especially with folding lattices of the lazy tongs type, wherein one end of the lattice is pivoted at one side of the window or door frame, and means is provided at the other side of the frame for securing the opposite end of the lattice when the latter is in its extended position.

The principal objects of my invention are:

First: To provide a folding lattice of the type described, wherein the stationary supporting bracket may readily be secured to the frame of the window by screws or bolts, and the unauthorized removal of these securing screws or bolts is prevented while the lattice is in place in its extended position, this result being accomplished by certain parts of the structure which are adapted to swing away from or over the heads of the bolts or screws.

Second: To provide a burglar-proof but inexpensive means for pivoting the lazy tongs upon their supporting bracket.

Third: To provide for a folding lattice of the type described an effective but inexpensive manner of securing the free end of the lattice to its associated window frame when the lattice is in its extended position.

Other objects and advantages of my invention will appear in the course of the following description thereof, as illustrated in the accompanying drawings, wherein—

Figure 1 is a side elevation of a window frame to which has been secured the folding lattice structure of my invention, the lattice being shown in its extended position;

Figure 2 is a transverse vertical section of the window taken on the line 2—2 of Figure 1, but showing the lattice in its folded position and swung outwardly into a plane at right angles to the window;

Figure 3 is a detail section of the swiveling means taken on the line 3—3 of Figure 1;

Figure 4 is a view similar to Figure 3, taken on the line 4—4 of Figure 1;

Figure 5 is a sectional detail of the locking means, taken on the line 5—5 of Figure 1;

Figure 6 is a vertical section taken on the line 6—6 of Figure 3, and

Figure 7 is a perspective detail of the channel member of the locking means.

Similar characters of reference refer to similar parts throughout the several views.

While my invention is equally adaptable to doorways, fences and the like, I have chosen to illustrate it as embodied in a window such as illustrated in Figure 1, which comprises a frame consisting of the left and right vertical rails 10 and 11, and the sash 12 and 13. Extending across the lower portion of the window is a folding lattice 14, comprising a plurality of metal strips 15 formed by rows of pivots 16 into lazy tongs. Certain of the strips 15 are shorter than their mates at each end of the lazy tongs, whereby the lazy tongs terminate at the left end at the upper and lower pivots 17 and 18, and at the right end at the upper and lower pivots 19 and 20 respectively. The novel means whereby I suspend the left or hinged end of the lattice and secure the stationary portions thereof to the window frame will now be described.

Adjacent the pivots 17 and 18, the supporting bar or bracket 21, which is here shown as substantially square in cross-section, is vertically disposed against the inner portion of the left hand rail or member 10 of the window frame, and secured thereto by means of screws 22 and 23, adjacent its upper and lower ends respectively. These screws are preferably countersunk and extend through the bars into the wood of the framework. If desired, an additional centrally located retaining screw 24 may also be provided. Extending from the upper and the lower ends respectively of the bar 21 are pivot bolts 25 and 26, the inner ends of which extend into the adjacent ends of the bar, and are there secured by pins 25′ which are riveted into place. Disposed between the head of the pivot bolt 25 and the upper end of the bar 21 is the collar portion 27 of a swivel member 28, which

terminates in a downwardly projecting plate 29 which is provided with the vertically elongated slot 30. A similar swivel member 31 is provided at the bottom end of the bar 21, except that the upwardly projecting plate portion of the swivel is not provided with an elongated slot, but simply with a hole for the reception of the pivot pin 18, which supports the lazy tongs at its lower and left end, the upper corner of the lazy tongs at this end being supported by the pivot pin 17 which passes through the slot 30 of the swivel member 28. The purpose of the elongated slot 30 as is readily seen is to provide for a vertical separation of the pivots 17 and 18 when the lattice work is collapsed.

It is clear from the foregoing description that the folding lattice is supported wholly at the left frame of the window and by means of the swivel members 28 and 31 is vertically pivoted longitudinally of the bar 21, and that the lattice may be swung about the axis of the pivot bolts 25 and 26. It will be readily observed that when the lattice is swung outwardly about the pivot bolts 25 and 26 as shown in Figure 2, both the retaining screws 22 and 23, which secure the bar 21 to the window frame, are readily accessible, and the supporting bar together with its associated lazy tongs may be removed. However, when the lattice is swung back into the plane of the window, the edge 29′ of the downwardly extending plate of the swivel member 28 directly overlies the head of the retaining screw 22, (Figure 6) making it very difficult to turn the head of the screw with a screw driver, and impossible to remove the screw more than a fraction of an inch, provided the screw can be turned. The same portion 29′ also overlies the outer end of the riveted pin 25′, making it impossible to place an instrument against the end of the pin to drive it out into the wood of the frame, and free the pivot bolt 25. Similarly, the upwardly extending portion 31′ of the swivel 31 longitudinally overlies the lower retaining screw 23, and the locking pin for the pivot bolt 26. It is clear then that the lattice cannot be disassociated from the frame of the window at its hinged end, because the pivot bolts 25 and 26 cannot be removed from the ends of the bar 21 to free the swivel members 28 or 31, and the screws 22 and 23 cannot be removed to free the bar 21,—so long as the lattice is swung into the plane of the window, although, of course, authorized removal of the whole device from the window can easily be made by swinging the lattice into the position of Figure 2.

The means whereby the free end of the lattice is locked in position at the opposite side 11 of the window frame comprises in general a bar 32 at the end of the lazy tongs, and a stationary channel member 33 secured to the frame 11. The bar 32 is secured to the pivots 19 and 20 at the right or free end of the lazy tongs by means of brackets 34 and 35, which are very similar to the swivel members 28 and 31, except that it is not essential that they be in swivel connection with the bar 32. Similarly to swivel member 28, the bracket 34 is provided with an elongated slot 34′, to allow for the folding of the lazy tongs. When the lattice is in position across the window, the bar 32 lies within the channel member 33, the latter being secured to the frame 11 with its web disposed against the window frame. Suitable retaining screws pass through the holes 36 in the web of the channel member to secure the latter to the frame. A tongue 37 is secured in the mid portion of the web of the channel member, the inner end of the tongue being peened over a countersunk slot in the web. The tongue 37 is adapted to pass through a slot 38 in the bar 32, and is provided at its outer end with a suitable hole 39 for the reception of the bow of a padlock 40, which prevents the withdrawal of the bar 32 from the channel member 33.

Thus, it will be seen that the padlock 40 by preventing the removal of the bar 32 from the channel member prevents the removal of the screws passing through the holes 36 in the web of the channel member, because the bar 32 immediately overlies the screw heads, and that the removal of the hinged end of the lattice is prevented so long as the free end is held in the plane of the window as previously explained.

While I have illustrated but one specific embodiment of my invention, I contemplate that changes may be made therein without departing from the scope or spirit of my invention.

I claim.

1. A window gate comprising a lazy tongs grille a bracket therefor, said bracket being provided with a retaining screw, a pivotal support on said bracket for one end of said grille, and means carried by said grille for overlying the head of said screw to prevent the removal of the latter when said grille is swung into closed position, said screw being removable when said grille is swung away from such position.

2. A collapsible window grille comprising a lazy tongs lattice, a bracket bar, screws passing through said bar for securing said bar to a window frame, bolts extending longitudinally from the ends of said bar, said bolts being pinned in said bar, swivel members pivoted on said bolts, each of said members comprising a collar portion surrounding said bolt and a hole in which is pivotally supported one end of said lattice, one of said holes being slotted to allow for

extension of said lattice, portions of said members, when said lattice is swung in position, longitudinally overlying said screws to prevent the removal of said screws, and means at the opposite end of said lattice for securing the latter in its extended position.

3. The combination of a window frame, a grille therefor, a vertically disposed bar secured to a lateral side of said frame, screws passing through said bar adjacent its ends to secure said bar to said frame, pivot pins extending longitudinally from the ends of said bar, swivel members supported by said bar, each of said members comprising a sleeve portion surrounding one of said pins, and a portion extending from said sleeve portion and provided with a transverse hole, said grille comprising a lazy tongs, one end of which is pivotally supported in each of said holes, one of said holes being vertically elongated to provide for extension of said lazy tongs, one of said second mentioned portions of said swivel members being so positioned that when said grille is swung into place about said pivot pins said portion lies a short distance longitudinally beyond one of said screws to prevent the removal of the latter.

4. The combination with a window or door frame of a grille therefor, said grille comprising a lazy tongs lattice, a bracket secured to one side of said frame, swivel members on said bracket, one end of said lazy tongs being pivotally supported on each of said swivel members to allow the folding of said lazy tongs, said grille being swingable about the axis of said swivel members, a bar secured by pivots to the opposite end of said lazy tongs, a channel member disposed against the opposite side of said frame, the web of said channel member lying toward said frame, screws passing through the web of said channel member to secure the latter to said frame, said channel member being adapted to receive said bar when said gille is in position whereby said bar covers the heads of said screws to prevent their removal, and means for locking said bar in said channel member.

5. The combination with a window or door frame of a grille therefor, said grille comprising a lazy tongs lattice, a bracket secured to one side of said frame, swivel members on said bracket, one end of said lazy tongs being pivotally supported on each of said swivel members to allow the folding of said lazy tongs, said grille being swingable about the axis of said swivel members, a bar secured by pivots to the opposite end of said lazy tongs, said bar being provided with a slot, a channel member for receiving said bar, the web of said channel member lying away from said bracket, screws passing through the web of said channel member to secure the latter, said channel member receiving said bar when said grille is in position whereby said bar covers the heads of said screws to prevent their removal, and a tongue secured to said channel member and passing through said slot in said bar, and a hole in said tongue near its end, to provide means for locking said bar in said channel member.

In witness whereof, I hereunto subscribe my name this 5th day of February, 1923.

FRANK KITZELMAN.

Witnesses:

J. DAVID DICKINSON,

OLIVER H. PARMELEE.