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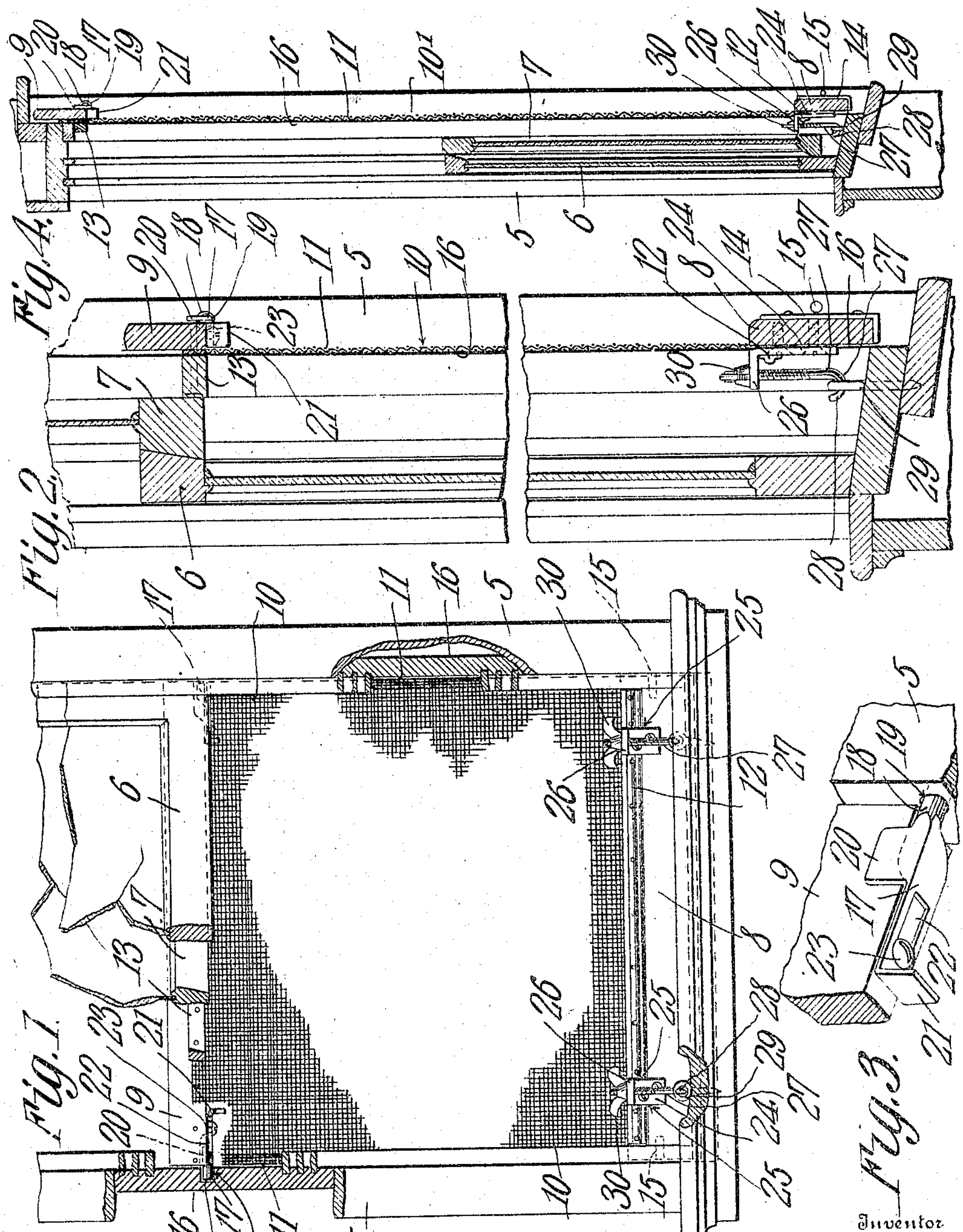
C. E. HALL.

WINDOW SCREEN.

APPLICATION FILED AUG. 7, 1907.



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UNITED STATES PATENT OFFICE.

CHARLES E. HALL, OF RUSHVILLE, INDIANA.

WINDOW-SCREEN.

No. 885,673. Specification of Letters Patent. Patented April 21, 1908.

Application filed August 7, 1907. Serial No. 387,523.

To all whom it may concern:

Be it known that I, CHARLES E. HALL, a citizen of the United States, residing at Rushville, in the county of Rush and State of Indiana, have invented a new and useful Window-Screen, of which the following is a specification.

This invention relates to screens for windows, doors, transoms and other closures and has for its object to provide a screen capable of being readily attached to or detached from the window frame and which serves to effectually prevent the entrance of mosquitoes and other insects to the interior of the room.

A further object of the invention is to provide means for locking the screen in position on the window frame, and means for regulating the tension of the wire gauze or netting forming the body of the screen.

A still further object of the invention is to generally improve this class of devices so as to increase their utility, durability and efficiency.

Further objects and advantages will appear in the following description, it being understood that various changes in form, proportions and minor details of construction may be resorted to within the scope of the appended claims.

In the accompanying drawings forming a part of this specification: Figure 1 is a front elevation partly in section of a screen constructed in accordance with my invention showing the same in position on a window frame. Fig. 2 is a vertical sectional view of the same. Fig. 3 is a detail perspective view of one of the locking members. Fig. 4 is a vertical sectional view illustrating a modified form of the invention.

Similar numerals of reference indicate corresponding parts in all of the figures of the drawings.

The improved screen forming the subject matter of the present invention is principally designed for attachment to windows and similar closures and by way of illustration is shown in connection with a window of the ordinary construction in which 5 designates the window frame, 6 the lower sash and 7 the upper sash.

The screen consists of spaced bars 8 and 9 connected by a strip of wire gauze or netting 10 which constitutes the body of the screen and forms a closure for the window so as to effectually prevent the entrance of mosquitoes or other insects to the interior of the room. The opposite ends of the screen are nailed or otherwise rigidly secured to the upper and lower transverse bars 8 and 9 while the opposite longitudinal edges of the screen are bent inwardly to form reinforced portions 11.

Secured to the inner faces of the bars 8 and 9 are transverse retaining strips 12 and 13 the upper one of which bears against the bottom or meeting rail of the top sash 7, as shown in Fig. 2 of the drawings. Secured to the opposite ends of the lower bar 8 are metal wear plates or strips 14 which bear against suitable guide pins or lugs 15 extending laterally from the window frame.

The guide pins 15 by engagement with the plates 14 serve to retain the lower bar 8 of the screen in engagement with the blind stop 16 while the upper bar 9 of the screen is locked in position on the blind stop by means of suitable locking members 17. The locking members 17 are slidably mounted on the lower longitudinal edge of the upper transverse bar 9 and are provided with terminal bolts or pins 18 which engage correspondingly shaped openings 19 formed in the adjacent edges of the window frame. The lower longitudinal edge of each locking member is provided with a vertically disposed ear 20 which engages the rear face of the upper bar 9 while the inner end of the locking member is bent downwardly to form a terminal finger piece 21 by means of which the bolts may be moved to operative and inoperative position.

The metal forming the locking members 20 is provided with elongated slots 22 for the reception of screws or similar fastening devices 23 secured to the lower longitudinal edge of the transverse bar 9 so that the locking members are free to move longitudinally of the bar when it is desired to remove the screen from the window frame. As a means for regulating the tension of the wire netting or gauze, spaced brackets 24 are secured to the lower transverse bar 8 with their upper ends seated in recesses 25 formed in the retaining strip 12 and with their terminal portions bent laterally to form over-hanging ears 26.

The ears 26 are provided with perforations for the reception of bolts or pins 27 one end of each of which is bent to form a terminal hook 28 adapted to engage an eye or loop 29 secured to the window sill while the opposite

end thereof is threaded for engagement with a wing nut 30 so that by adjusting the wing nuts 30 a longitudinal pull will be exerted on the body of the screen thereby to effect the tension of the same.

Attention is here called to the fact that the lower longitudinal edge of the transverse bar 8 is normally spaced from the window sill so as to permit a limited vertical movement of the lower bar 8 when the nuts 30 are rotated.

In positioning the screen on the window frame the lower transverse bar 8 is inserted between the pins 15 with the reinforcing edges 11 of the screen in engagement with the blind stop 16, after which the locking members are adjusted longitudinally until the pins 18 enter the adjacent recesses 19. The nuts 30 are then rotated on the pins 27 which cause said nuts to exert a downward pressure on the ears 26 and thus effect the stretching of the wire gauze or netting, in the manner before stated.

In order to remove the screen it is merely necessary to release the hooks 28 from engagement with the eyes 29 and then retract the locking members 27 thus permitting the screen to be readily detached.

In Fig. 4 of the drawings there is illustrated a modified form of the invention in which the screen 10′ extends the entire height of the window frame, the construction and operation of the device being otherwise the same as the screen shown in Figs. 1 and 2 of the drawings.

From the foregoing description it is thought that the construction and operation of the device will be readily understood by those skilled in the art and further description thereof is deemed unnecessary.

Having thus described the invention what is claimed is:

1. The combination with a window frame having horizontally alined openings formed therein, of a screen including spaced transverse bars, plates slidably mounted on the lower longitudinal edge of the upper bar and having their inner ends provided with terminal finger pieces and their outer ends formed with pins adapted to enter the openings in the window frame, said plates being provided with vertically disposed guide ears adapted to engage the outer face of the adjacent transverse bar, and a tension device carried by the lower bar and engaging the window frame for exerting a longitudinal pull on the screen.

2. The combination with a window frame having a blind stop and provided with upper and lower sashes, of a window screen including spaced transverse bars, a strip extending laterally from the upper bar and bearing against the adjacent sliding sash, eyes secured to the bottom of the window frame, brackets secured to the lower transverse bar and having their upper ends bent laterally to form perforated ears, threaded rods extending through the perforations in the ears and provided with terminal hooks for engagement with the eyes, clamping nuts engaging the threads on the rods and bearing against the ears for adjusting the tension of the screen, and locking members slidably mounted on the upper transverse bar and engaging the window frame for locking the screen in position on said frame.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

CHARLES E. HALL.

Witnesses:

HARRY D. LAKIN,

GLADSTONE BARRETT.