(No Model.)

H. E. MOYER.

WINDOW SCREEN.

No. 532,686. Patented Jan. 15, 1895.

Fig: 1.

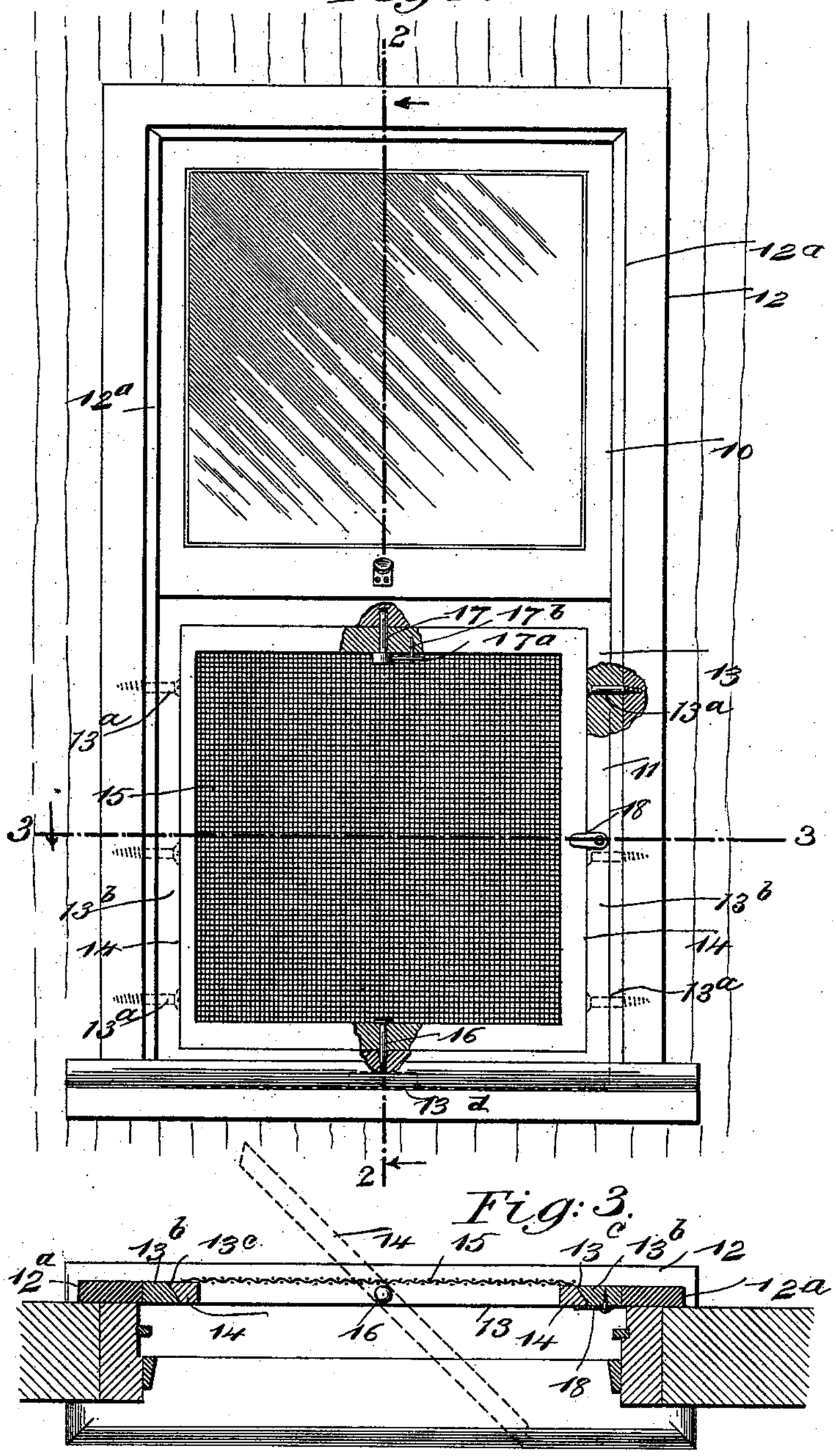

Fig: 2.

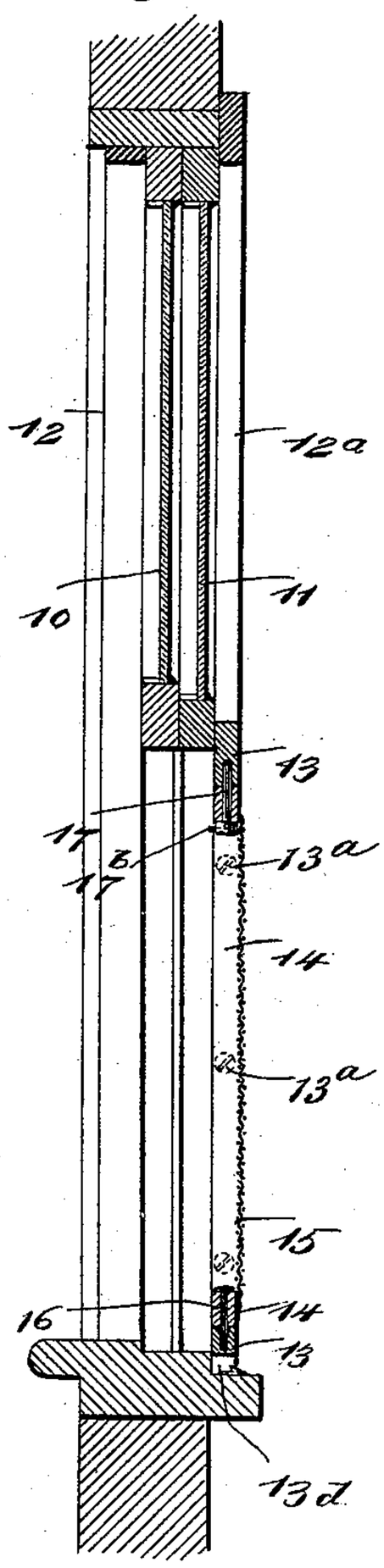

Fig: 3.

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HARLEY E. MOYER, OF CONWAY SPRINGS, KANSAS.

WINDOW-SCREEN.

SPECIFICATION forming part of Letters Patent No. 532,686, dated January 15, 1895.

Application filed June 1, 1894. Serial No. 513,164. (No model.)

To all whom it may concern:

Be it known that I, HARLEY E. MOYER, of Conway Springs, in the county of Sumner and State of Kansas, have invented a new and useful Improved Window-Screen, of which the following is a full, clear, and exact description.

My invention relates to an improvement in window screens, of a class that are adapted for removal from the windows provided therewith, and has for its object to produce a novel, simple window-screen that will be easily placed and removed, and that will permit a quick and convenient adjustment of the same to afford free access to the window glass on the side nearest to the screen, for cleaning purposes or to open the window for any other purpose.

A further object is to provide facilities for opening and closing the shutters of windows having the improved screen in position for service.

To these ends my invention consists in the construction and combination of parts, as is hereinafter described and indicated in the claims.

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

Figure 1 is an inner side view of a window, showing both of the sashes elevated, and the improved window screen in place to protect the opening produced by the elevation of the lower sash. Fig. 2 is a transverse sectional view on the line 2—2 in Fig. 1; and Fig. 3 is a sectional plan view of the improvement on the line 3—3 in Fig. 1.

The upper sash 10, and lower sash 11, of the ordinary window shown to illustrate the application of the improvement, are loosely retained free to vertically reciprocate as usual in the window casement 12. On the inner vertical edges of the keeper strips 12^a, that are located on the stiles of the casement, exterior of the outer surface of the upper sash, for the retention and guidance of said sash, a light rectangular frame 13 is secured, which is a part of the improvement; its location being at the lower part of the casement.

The frame 13, is made of such proportionate dimensions, that it will overlap the meeting rail or lower transverse bar of the upper sash 10, when in position and said sash is completely elevated, as is clearly indicated in Fig. 2.

The lateral size of the frame 13, is such as will allow it to have close contact with the side surfaces of the keeper strips 12^a, to which the frame is secured by screws 13^a that penetrate the impinged strips and pass through the side bars 13^b of the screen frame, as shown in Fig. 1.

The bars 13^b of the frame 13, are beveled an equal degree along their inner vertical edges, as shown at 13^c, in Fig. 3; these bevel edges being produced in parallel planes, as are also the upper and lower edges of the frame, the latter mentioned edges being formed at right angles to the inner and outer side surfaces of the transverse bars of the frame.

The border frame 14, that is furnished to receive and sustain the woven wire screen cloth 15, which is stretched and secured on it, is of such a size relative to the space encompassed by the stationary frame 13, that the frame 14 will loosely fit within the latter, the outer edges of the side bars on the frame 14, being beveled to conform with the side edges of the frame they engage.

The frame 14, is pivoted in place within the stationary frame 13, at the transverse centers of both frames, said pivots being located in the top and bottom rails of the frames mentioned.

It is essential that the pivoting devices, which are designed to afford means for the swinging movement of the frame 14, within the frame 13, be of such a character as will allow the frame 14, to be readily removed from the stationary frame. Ordinary spring-pressed slide bolts, are available for the pivoting of the swinging frame 14, on the stationary frame 13, if the bolt bodies are made cylindrical to allow them to slide within and have a partial rotation in sockets correctly formed and located in the top and lower bars of the stationary frame, which bolts being retractile, will afford means for the quick removal and replacement of the frame 14, when this is desired.

The preferred means for removably pivoting the swinging frame 14, in the stationary

frame 13, as shown comprises a lower pintle 16, that is fast in the lower bar of the frame 14, at its transverse center, and projects therefrom sufficiently to be introduced and loosely engage with a slightly conical socket formed at the transverse center in the lower bar of the frame 13.

The upper bars of both of the frames 13, 14, are perforated in the same vertical plane with the pintle, 16, for the reception of a removable pivot bolt 17, the latter having an enlarged head on its lower end from which laterally projects a spring finger 17^a, of such a length as will allow it to have a latching engagement with the lateral limb formed on the depending latch bolt 17^b. The pivot bolt 17, can be quickly put into position, by its insertion in the aligned holes it is to occupy, and then by a partial rotation of said bolt cause its finger to interlock with the latch bolt limb, which will retain the pivot bolt in place until it is designedly removed.

It will be seen that the swinging screen-covered frame 14 may be rotatably moved to afford an open space below the raised lower sash 11. When this is desired, and to securely retain the swinging frame 14 in closed adjustment, a turn button such as 18, is preferably employed, which is pivoted on the inner side of one of the vertical bars of the frame 13, so as to be adapted to overlap the adjacent side bar of the swinging frame 14, when the latter is completely closed with its bevel edges seated on the like edges of the stationary frame 13.

To facilitate the opening and closing of outside shutters of the window, (not shown,) there is a notch 13^d of proper size, cut in the lower edge of the stationary frame 13, at such a point as will allow the hook on the shutter to engage with a catch on the sill of the casement, as indicated in Fig. 2, or if necessary more than one of said notches may be provided.

In use the screen as constructed and applied, is well adapted to prevent the entrance of flies or other winged insects through the window when the lower sash is opened, and as it is readily removable, the windows protected by the improvement can be cleaned on both sides of the sash, at any time. The notches cut in the lower edges of the stationary frame 13, permit the exit of flies that may have entered the room through other openings, such as doors, which they will seek to do if the room is measurably darkened in the daytime, and an entrance of such insects through the notches can be prevented by sealing the latter with any suitable appliance.

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

1. The combination with a rectangular frame, securable on the stiles of a window casement and having the inner edges of its side bars beveled in parallel planes, of a smaller rectangular frame, the side edges of which are beveled to fit on the like edges of the larger frame, a screen covering on the smaller frame, a pintle bolt projected from the smaller frame at the center of its lower cross bar and entering a perforation in the larger frame, a removable and securable upper pivot bolt passing through aligned perforations in the upper cross bars of the frames, and a turn-button arranged to lock the frames together, substantially as described.

2. In a window screen, the combination with an outer frame provided with aligned sockets in the opposing rails, of a screen covered frame fitting in the outer frame and having one of its bars perforated, a pintle secured in one bar of the screen covered frame and engaging one of the sockets of the outer frame, a headed pintle fitting in the aperture of the screen covered frame and the socket of the outer frame and provided with a laterally projecting spring finger, and a latch bolt secured to the screen covered frame and with which the spring finger engages, substantially as described.

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Witnesses:
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