

P. GYSEL.
WINDOW SCREEN.

(Application filed Aug. 30, 1900.)

(No Model.)

Fig. 1

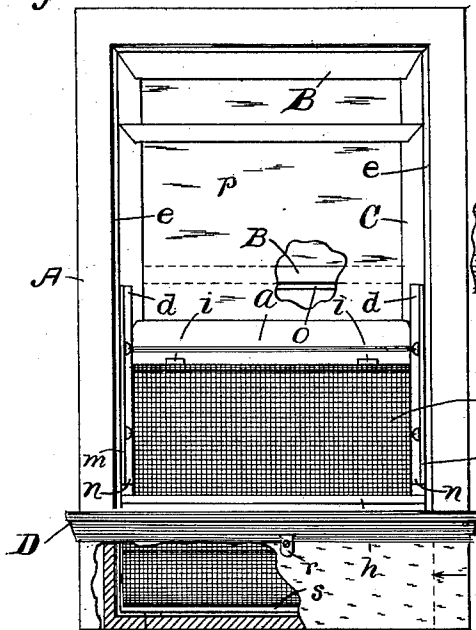


Fig. 2.

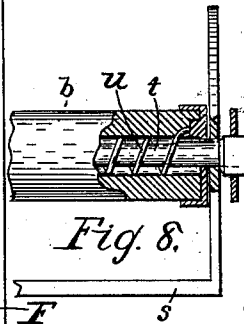


Fig. 8.

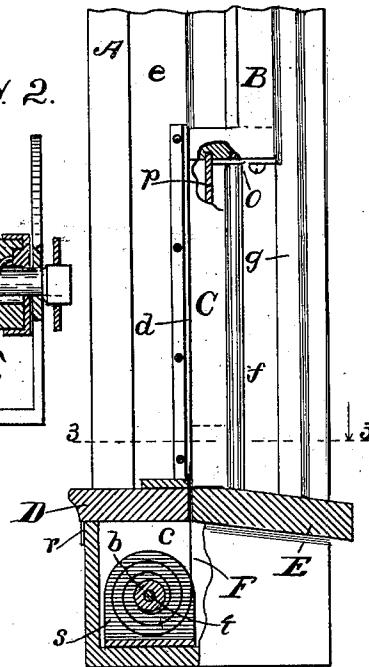


Fig. 3.

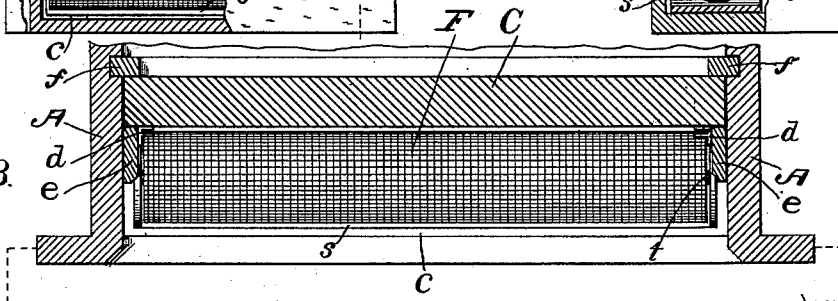


Fig. 4.

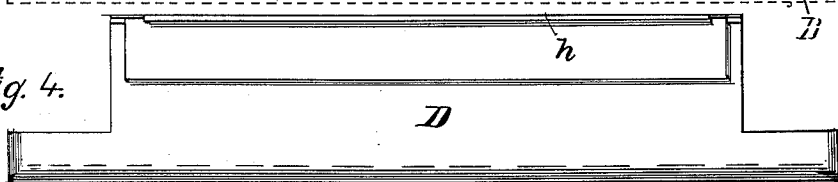
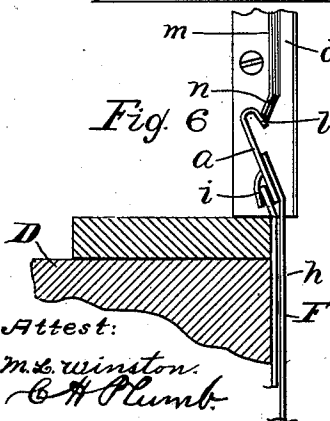


Fig. 6.



Attest:
m. s. winston.
C. H. Plumb.

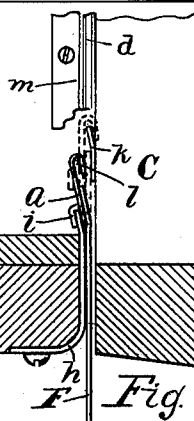
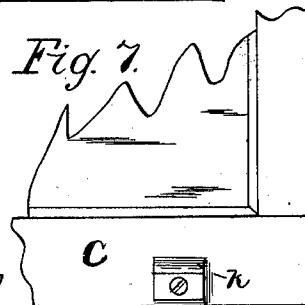


Fig. 5.

Fig. 7.



Inventor:
P. Gysel,
By E. B. Whitmore, Atty

UNITED STATES PATENT OFFICE.

PETER GYSEL, OF ROCHESTER, NEW YORK, ASSIGNOR OF ONE-HALF TO
PETER W. SEILER, OF SAME PLACE.

WINDOW-SCREEN.

SPECIFICATION forming part of Letters Patent No. 663,753, dated December 11, 1900.

Application filed August 30, 1900. Serial No. 28,546. (No model.)

To all whom it may concern:

Be it known that I, PETER GYSEL, of Rochester, in the county of Monroe and State of New York, have invented a new and useful Improvement in Window-Screens, which improvement is fully set forth in the following specification and shown in the accompanying drawings.

My invention is a screen for windows designed to exclude flies and other winged insects when the window is open, the screen proper being preferably of wire-cloth. This screen is held upon a self-winding roller near or below the lower part of the sash, and it is made readily attachable to the sash to move up and down with the latter or detachable from the sash, as may be desired.

The invention is hereinafter fully described, and more particularly pointed out in the claims.

Referring to the drawings, Figure 1 is an elevation of a window viewed from within, parts being broken away. Fig. 2 is an edge view of the lower part of the window, seen as indicated by arrow in Fig. 1, parts being vertically sectioned on the dotted line at the point of the arrow. Fig. 3 is a horizontal section on the dotted line 3 3 in Fig. 2. Fig. 4 is a plan of the window-stool detached. Fig. 5 is an edge view of parts at the bottom of the window, parts being shown in two positions by full and dotted lines, the vertical section being, as in Fig. 2, with parts broken away. Fig. 6 is a view similar to Fig. 5 and similarly vertically sectioned, more fully showing the manner of controlling the head of the screen. Fig. 7 is a front elevation at the lower right-hand corner of the lower sash, showing one of the catches for the screen. Fig. 8 shows parts at the end of the roller partly in vertical section. Figs. 1 and 2 are drawn to scales smaller, and Figs. 5 and 6 to scales larger, than those of Figs. 3, 4, 7, and 8.

In the drawings, A is the window-frame, and B the upper and C the lower sash.

D is the window-stool, and E the sill, *e*, *f*, and *g* being the ordinary vertical sash-stops.

F is the screen proper, being preferably a perforated sheet, as of wire-cloth, formed with a head *a* of sheet metal, Figs. 1, 5, and 6. The screen is held upon a self-winding

roller *b*, Figs. 2 and 8, substantially of common construction, with core-shaft *l* and winding-spring *u*. The roller rests in a frame *s*, placed near or below the lower edge of the sash, preferably in a chamber *c*, Figs. 1, 2, and 3, beneath the stool *D*, as shown.

d d are vertical guides or races at the sides of the window-casing for the ends of the head *a* to move in when the sash is raised or lowered.

The stool *D* is made removable from the frame of the window to uncover the chamber *c* for the purpose of inserting or removing the roller, simple means of common kind (not shown) being provided to secure the frame *s* in place in the chamber. The stool is provided with a metal catch-plate *h*, Figs. 4, 5, and 6, for holding the head of the screen when it is detached from the sash, the head being provided with projecting parts or catches *i* to engage the upper edge of the plate. At its upper edge the head *a* is bent backward and downward, forming a loop *l*, as shown, to engage rests *k*, Figs. 5 and 7, secured to the sash *C*, when it is wished to attach the screen to the sash. In the summer season the head is attached to the sash, as stated, and moves upward with the latter, and is automatically rewound upon the roller *b* and disappears in the chamber *c* when the sash is lowered. Should it be desirable at any time to raise the sash without the screen, the head *a* is detached from the sash and hooked onto the catch-plate *h*, as above described. This prevents the head from being drawn downward into the chamber *c* by the roller *b*, holding it in readiness to be replaced upon the sash, as before, when necessary.

During the season when insects have disappeared the head of the screen is detached both from the sash and the catch-plate and allowed to be drawn downward into the chamber *c* permanently or until the screen is needed for next season. When the window-stool *D* is in place, the inner vertical surface of the catch-plate is close to the screen, so there is no opening next the screen. To allow the head of the screen to pass downward into the chamber, the stool is momentarily drawn slightly outward to make way for the same. Some simple fastener *r*, Figs. 1 and

2—as a button or spring-catch, for example—is employed with the removable stool to hold the latter in place when in its normal position.

- 5 The upper projecting edge of the catch-plate is preferably bent slightly away from the sash, as shown in Figs. 4 and 6, and when the head *a* of the screen is engaged by said plate it also slightly leans, as shown. The
10 screen *F* is attached to the inner face of the head, as shown, and tends to pull or turn it toward the sash and off of the catch-plate. To avoid this, I form the outer ribs *m* of the
15 races *d* short at their lower ends and bend them slightly outward to form rests *n* for the upper part of the head at its ends. This holds the head securely in position when hooked upon the catch-plate. The head is
20 placed upon the catch-plate by turning it downward at the top toward a horizontal position, it being also thus turned to pass under said rests when detaching it from the catch-plate.
- 25 With this window-screen and to make the device complete as a protector against insects I employ a strip *o*, Figs. 1 and 2, secured horizontally to the lower face of the bottom rail of the upper sash, extending inward to
30 have its front edge meet the outer surface of the glass *p* of the lower sash. This closes the horizontal opening formed between the two sashes when the lower one is raised.

It is not essential to this invention that the winding-roller *b* be placed below the stool *D*, 35 it being only necessary to have it near the lower rail of the sash. The frame *s*, holding the roller, might, for example, be secured to the upper surface of the stool *D*.

What I claim as my invention is— 40

1. In a window-screen, a roller, a perforated sheet wound thereon, a head secured to the upper end of said sheet and provided with a loop extending upon one side and downwardly-inclined catches extending from the 45 opposite side, rests to engage said loop and a catch-plate having inclined upper ends for detachably engaging said catches on the head, as set forth.

2. In a window-screen, a roller, a perforated 50 sheet secured at one end thereto to be wound thereon, a head secured to the upper end of said sheet and formed with a loop and projecting catches, a catch-plate to be engaged by said catches and guides for the said head 55 having their lower ends shortened and bent outwardly to form inclined rests substantially as and for the purpose specified.

In witness whereof I have hereunto set my hand, this 27th day of August, 1900, in the 60 presence of two subscribing witnesses.

PETER GYSEL.

Witnesses:

E. B. WHITMORE,
M. L. WINSTON.