

1,126,442.

Patented Jan. 26, 1915.

Fig. 1.

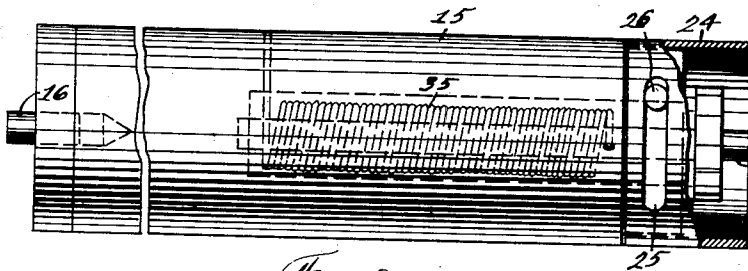
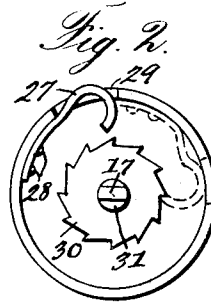


Fig. 3.

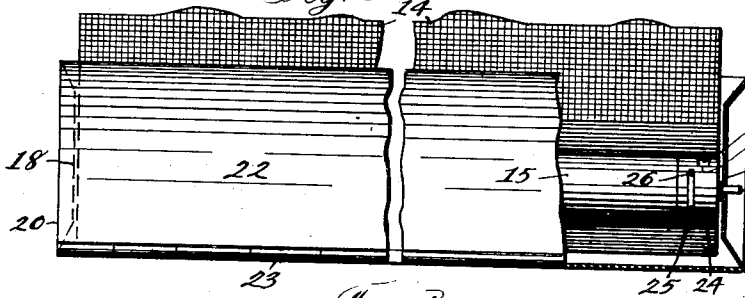
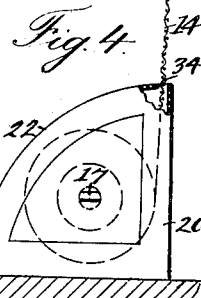


Fig. 5.

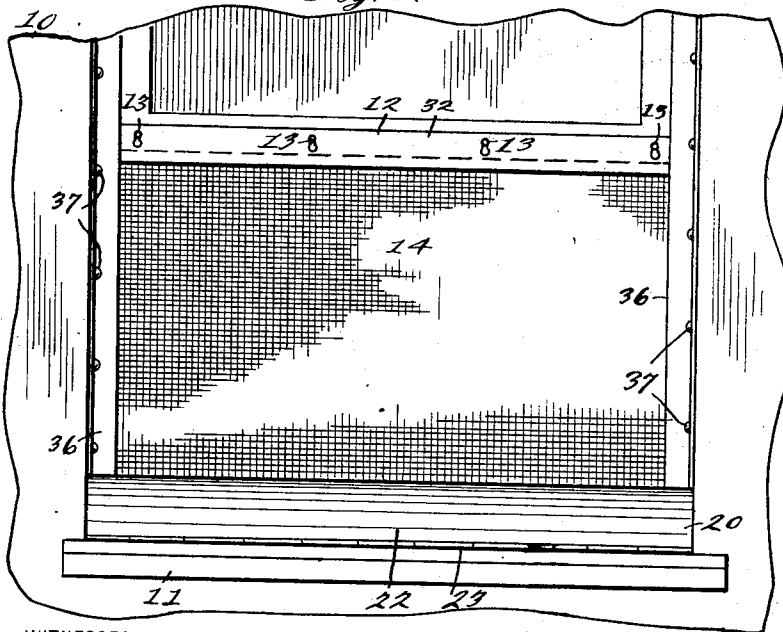


Fig. 6.

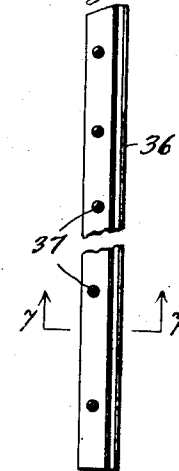


Fig. 7.



WITNESSES

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WINDOW-SCREEN.

1,126,442.

Specification of Letters Patent.

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Application filed June 24, 1914. Serial No. 847,004.

To all whom it may concern:

Be it known that I, CHARLES H. FULDE, a subject of the Emperor of Germany, and a resident of Cooperstown, in the county of Otsego and State of New York, have invented certain new and useful Improvements in Window-Screens, of which the following is a specification.

My invention relates to the screening of windows, and the main object thereof is to provide a screen for use either at the top, bottom, or both, of a window and so mounted as to be movable with a sash.

A further object is to provide spring means for winding said screen upon a roller in the movement of a sash toward said roller.

A further object is to provide means for quickly and easily attaching said screen to or detaching the same from a sash.

A further object is to provide means for quickly and easily adjusting the tension of said spring means, without the necessity for removing the screen from the window.

A further object is to provide a casing for the roller which permits ready access to said roller and to the screen thereon; and further objects are to provide such devices which are simple in construction, installation, and use; which are composed of but few parts whereby there is little likelihood of their requiring repair; which are fully protecting in use; and which are comparatively inexpensive.

My invention is fully described in the following specification, of which the accompanying drawings form a part, in which the separate parts are designated by the same reference characters in each of the views, and in which:—

Figure 1 is a side view of a roller which I employ, partly in section; Fig. 2 is an end view thereof; Fig. 3 is a view thereof, reduced in size, ready for installation, within a casing, the latter being broken away to show details of construction; Fig. 4 is a side view of the casing, partly in section; Fig. 5 is an elevation of a window frame provided with my invention; Fig. 6 is a face view of a screen guide which I employ; and Fig. 7 is an end view thereof.

In the drawings forming a part of this application I have shown a window frame 10, having a sill 11, and a vertically movable

sash 12, provided with a plurality of pins 13 for engagement, detachably, with a screen 14, preferably of metal, such as copper or other non-rusting material, and said screen is carried with the sash as will be seen.

The screen 14 is secured to and rolled on a roller 15 having a cylindrical journal 16 at one end and a flat or angular head 17 at the opposite end, said journal and head being seated in resilient members 18 and 19, respectively, of a casing 20 secured to the sill 11 by means of screws or suitable equivalents, and I provide a cover 22 for the casing and hinged thereto as shown at 23.

Revoluble on a reduced end of the roller, indicated by dotted lines in Fig. 1, is a cap or sleeve 24 having a peripheral slot 25 therein and wherein is engaged a pin 26 secured to the reduced end of the roller, said pin serving to limit the movement of said sleeve on the roller, and on the interior of said sleeve I provide a spring pawl 27, riveted to said sleeve at 28, and a hump on said pawl projects to or slightly beyond the outer periphery of the sleeve, through a slot 29 whereby said pawl may be inwardly depressed to engage with a ratchet-wheel 30 on the shaft 31, of which the journal 17 is a part, and I provide a coil spring within the roller 15 and secured, at one end, thereto, the other end of said spring being secured to the shaft 31, about which it is wound, and the flat end 17 of said shaft normally rests in a similarly shaped opening in the member 19 of the casing 20.

The upper end of the screen 14 is provided with a marginal strip 32 having holes therein for engagement with the pins 13 on the sash 12, and, when the screen is not in use, this strip prevents the end of the screen from entering the slit 34 in the top of the casing 20 through which the screen is passed and, given a desired tension of the coil spring 35, the screen moves with the sash to wind or unwind on or from the spring actuated roller 15. If, however, it is desired to adjust the tension of the spring 35, all that is necessary is to open the casing cover 22, depress the pawl 27 to engage the ratchet 30, press the roller away from the casing member 19, the resiliency of the member 18 permitting this slight movement, and press the member 19 outwardly to permit the withdrawal of the flat end of the

shaft therefrom, after which the shaft may be turned to increase or to decrease the spring tension; the pin 26 preventing too great movement of the sleeve 24 and connected pawl, and the flat end 17 again placed in the similarly formed opening in the casing member 19.

In Figs. 6 and 7 I have shown a double flanged screen guide 36 which has a base for window connection by means of screws 37 or equivalents, and it will thus be seen that no insects can enter a window so screened, and that said screen requires no attention after having been installed and adjusted; it will also be seen that my screen casing may be quickly and easily attached to or detached from a window, requiring only a screw-driver, and so simply that a child can do it but, when installed, my screen is eminently well adapted for the purposes for which it is designed.

While I have shown a present preferred form of construction, I do not limit myself thereto, but may make changes and alterations therein, within the scope of the following claims, without departing from the spirit of my invention or sacrificing its advantages and, with such reservation.

What I claim as new, and desire to secure by Letters Patent, is:—

The combination in a window provided with a movable sash; of a screen in detachable connection with said sash, a roller therefor, a shaft in said roller provided with an angular end, a spring connecting said roller and shaft, a casing serving as a support for said shaft having an angular opening at one end to receive said angular shaft end, a ratchet on said shaft, a sleeve rotatable on said roller, and a pawl carried by said sleeve and adapted to be manually forced into engagement with said ratchet to maintain the relationship between the shaft and roller when said angular shaft end is disconnected from said casing to permit the rotation of said roller and shaft to change the tension of said spring with respect to said screen.

In testimony whereof I have signed my name to this specification in the presence of the subscribing witnesses.

CHARLES HENRY FULDE.

Witnesses:

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JOHN CRONCNER.