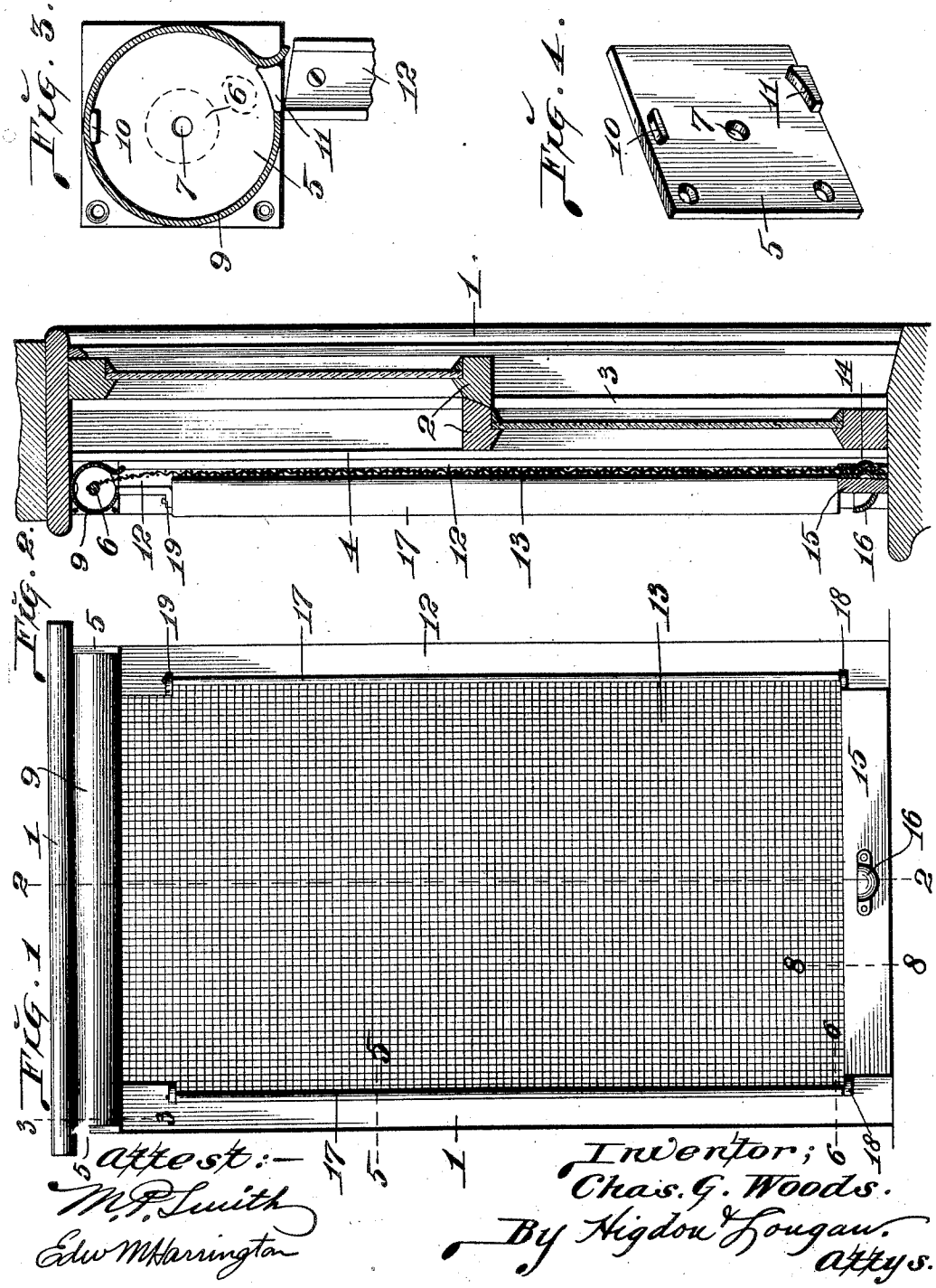
No. 802,838. PATENTED OCT. 24, 1905.

C. G. WOODS.

WINDOW SCREEN.

APPLICATION FILED APR. 18, 1905.

2 SHEETS—SHEET 1.



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2 SHEETS—SHEET 2.

Fig. 5.

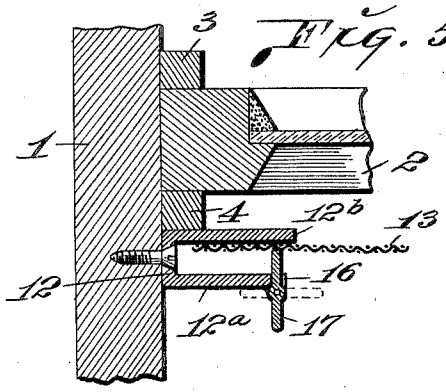


Fig. 7.

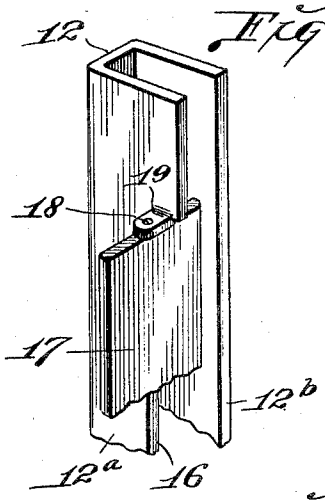


Fig. 6

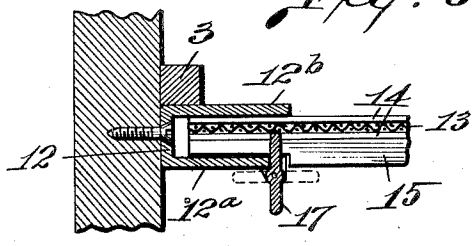


Fig. 8

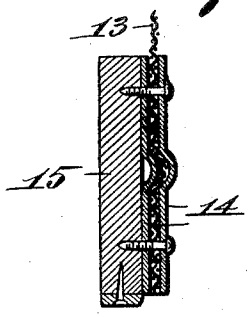
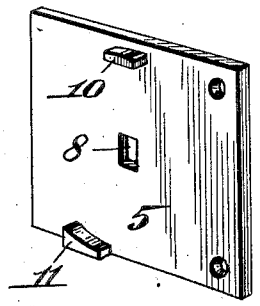


Fig. 9.



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UNITED STATES PATENT OFFICE.

CHARLES G. WOODS, OF ST. LOUIS, MISSOURI, ASSIGNOR OF ONE-THIRD TO JAMES D. LOWARY, OF LORAINE, ILLINOIS, ONE-THIRD TO LULU M. WOODS, AND ONE-THIRD TO BESSIE McCOY, OF ST. LOUIS, MISSOURI.

WINDOW-SCREEN.

No. 802,838. Specification of Letters Patent. Patented Oct. 24, 1905.

Application filed April 18, 1905. Serial No. 256,297.

To all whom it may concern:

Be it known that I, CHARLES G. WOODS, a citizen of the United States, and a resident of St. Louis, Missouri, have invented certain new and useful Improvements in Window-Screens, of which the following is a specification containing a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to window-screens, and has for its object the provision of a window-screen that will roll up in a casing located at the top of the window-frame when said screen is not in use.

The further object of my invention is to provide a window-screen that will cover the entire opening in a window-frame, thus allowing either the top or bottom sash to be raised or lowered to provide proper ventilation.

To the above purposes my invention consists in certain novel features of construction and arrangement of parts that will be hereinafter more fully shown, described, and claimed.

In the drawings, Figure 1 is a view of the outside of a window that is equipped with my improved screen. Fig. 2 is a vertical section taken on line 2 2 of Fig. 1. Fig. 3 is an enlarged vertical section taken on the line 3 3 of Fig. 1. Fig. 4 is a perspective view of one of a pair of plates made use of to support the spring-roller on which the wire screen winds. Fig. 5 is an enlarged detail section taken on line 5 5 of Fig. 1. Fig. 6 is an enlarged detail section taken on line 6 6 of Fig. 1. Fig. 7 is a view in perspective of the upper end of one of the channel-guides in which the edges of the screen travel. Fig. 8 is an enlarged cross-section taken on line 8 8 of Fig. 1. Fig. 9 is a perspective view of one of the bearing-plates which support the spring-roller.

Referring by numerals to the accompanying drawings, 1 indicates the window-frame, in which operates in the usual manner the window-sash 2.

3 indicates the parting-strip, and 4 the outside retaining-strip.

Positioned at the top of the window-frame just outside the outside strip 4 are the two rectangular plates 5, in which are journaled the ends of an ordinary spring-roller 6. One of these plates is provided with a circular aperture 7 and the opposite plate with a rectangular aperture 8, these apertures receiving the journals of said roller. Positioned between said plates and around the roller is a circular sheet-metal casing 9, which forms a housing for the wire screen when it is rolled up on the roller 6. Legs 10, formed integral with the inner faces of the plates 5 at the tops thereof, extend beneath the ends of the casing 9 to separate the same, and lugs 11 are formed integral with the inner pieces of the lower edges of said plates, which lugs extend into the slot or opening formed between the adjusting ends of the casing, and thus prevent any rotation of said casing. The slot or opening between the ends of the piece of material of which the casing is formed extends the entire length of said casing, or from one plate 5 to the other, in order to allow the free passage of the screen into or out of said casing.

Located against the inside faces of each of the sides of the window-frame 1 are the vertically-arranged guides 12 in the form of channels, the same being formed of single pieces of material and held so that their upper ends are immediately beneath the slot or opening in the housing 9.

Adapted to wind upon the spring-roller 6 is a section of a wire screen 13, the side edges of which ride in the guides 12, and the lower edge of said screen is held between a pair of sheet-metal plates 14, the ends of which extend into said guides 12. These strips 14 are secured to a wooden facing-strip 15, the same being provided on its outer face with finger-engaging lip 16. The outer walls or members 12^a of the guides 12 have their edges cut away, as indicated by 16, and in said cut-away portions operate the binders or locking-strips 17, the same being pivotally held on their ends by the pivot-pins 18, that pass through ears 19, that are bent from the material of which the guides 12 are formed at the upper and lower ends of the cut-away portions 16. These binders 17 are of such a width as that when they are swung around at right angles to the guides 12 their rear ends will tightly bear against the side edges of the wire screen 14 and cause the same to bear against the rear walls or portions 12^b of said guides 12. This arrangement makes a perfectly tight joint between the screen and

the guides and is thoroughly effective in preventing the passage of insects from the exterior to the interior of the screen. The lower pair of lips 18 are so located as that the lower ends of the binders 17 will engage over the ends of the facing-strip 15 that project into the guides 12 when said facing-strip is moved downwardly to its limit of movement against the lower part of the window-frame. When the binders 17 are swung around into planes parallel with the guides 12, as seen by dotted lines in Figs. 5 and 6, the screen is free to be moved upwardly as desired and to be wound on the spring-roller 6.

My improved window-screen is very simple in construction and operation, can be entirely wound within the housing whenever it is not needed, and as said screen covers the entire window-frame either sash may be raised or lowered in order to obtain perfect ventilation to the room in which said window is located.

I claim—

1. In a window-screen, a pair of plates mounted on opposite sides in the upper end of a window-frame, a hollow cylinder having a slot in its lower side arranged between said plates, lugs integral with the upper portions of said plates for supporting the ends of the cylinder, lugs integral with the lower portions of said plates for engaging in the ends of the slot in the cylinder, a spring-roller mounted for rotation within the cylinder, a screen winding upon the roller and passing out of the cylinder through the slot, vertical channel-guides arranged beneath the plates in which the said edges of the screen travel, binders pivotally secured at their ends to the channel-guides and swinging horizontally to engage the said edges of the wire screen, substantially as specified.

2. In a window-screen, a housing detachably secured to the upper portion of a window-frame, a spring-roller therein, a wire screen winding upon the spring-roller, channel-guides extending downwardly from the ends of the housing, binders extending approximately the entire length of said channel-guides and being pivoted at their ends to said channel-guides and arranged to swing horizontally to engage said edges of the wire screen, substantially as specified.

3. In a window-screen, a housing arranged in the upper end of the window-frame, a spring-roller mounted for rotation therein, channel-guides secured to the window-frame beneath the ends of said housing, a wire screen adapted to wind upon said spring-roller and travel in the channel-guides, binders pivotally held at their ends to the front walls of the channel-guides and adapted to swing horizontally to engage the edges of the screen and bear the same against the rear walls of said channel-guides, and a strip secured to the lower end of the wire screen and which is adapted to be engaged beneath the lower ends of the binders, substantially as specified.

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

CHARLES G. WOODS.

Witnesses:
M. P. SMITH,
EDW. M. HARRINGTON.