No. 855,769. PATENTED JUNE 4, 1907.

J. A. GRANT.

SCREEN.

APPLICATION FILED MAY 3, 1905.

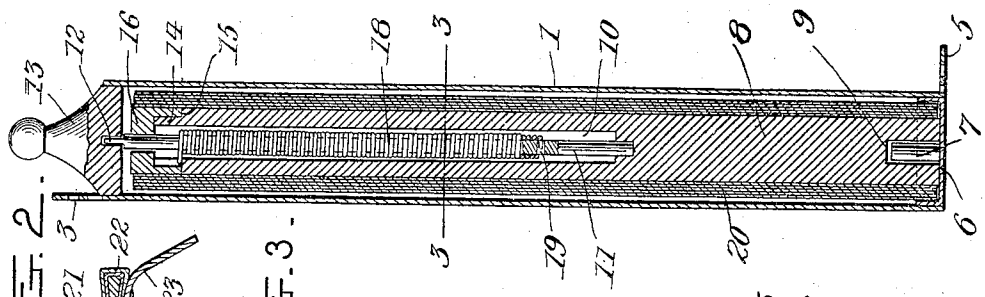


FIG. 2.

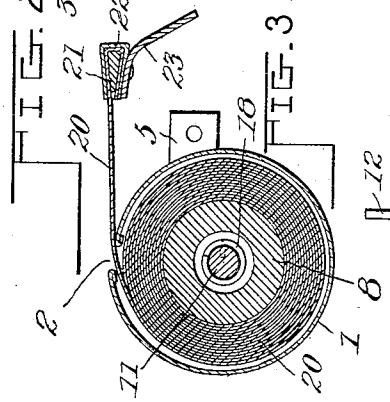


FIG. 3.

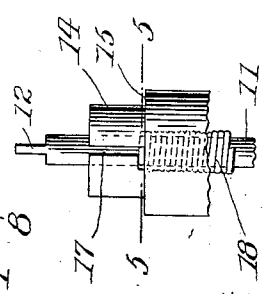


FIG. 4.

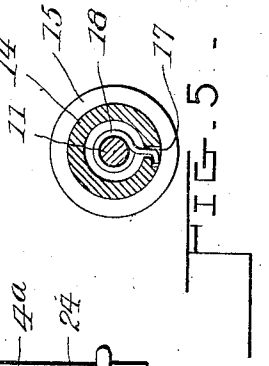


FIG. 5.

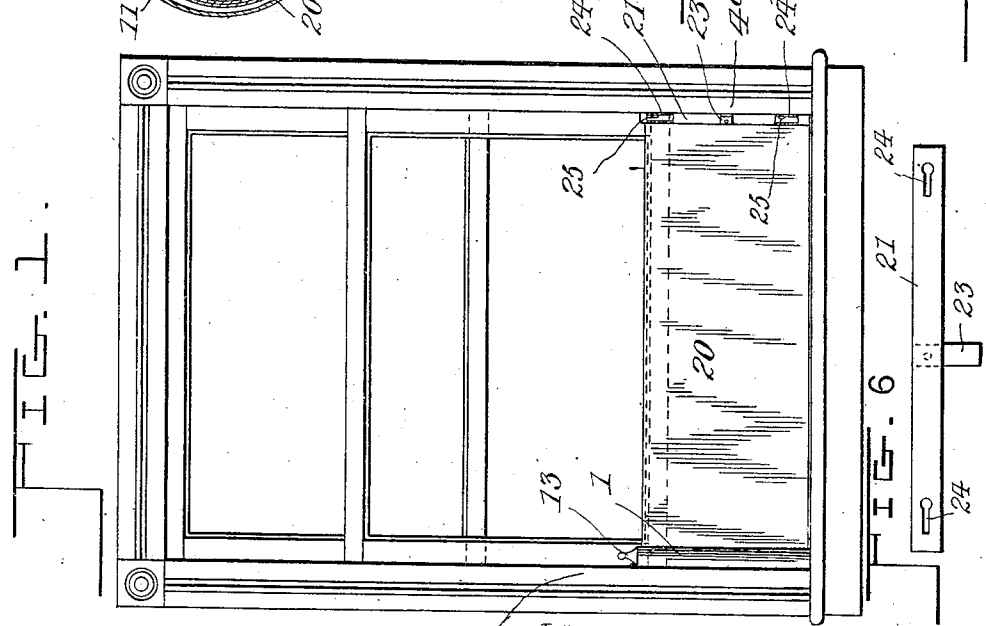


FIG. 1.

FIG. 6.

Witnesses:

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SCREEN.

No. 855,769. Specification of Letters Patent. Patented June 4, 1907.

Application filed May 3, 1905. Serial No. 258,695.

To all whom it may concern:

Be it known that I, JOHN ALEXANDER GRANT, a subject of the King of Great Britain, residing at Emerado, county of Grand Forks, in the State of North Dakota, United States of America, have invented certain new and useful Improvements in Screens; and I do hereby declare that the following is a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to new and useful improvements in screens adapted to be placed in position to cover window openings, and consists in certain features of novelty relating to the detail construction thereof, all as hereinafter more fully described and specifically pointed out in the claims.

The object of the invention is to provide a light, strong and easily portable device, which may be connected to a window frame, which, when not in use as a screen, may be rolled on a spring-actuated roller within a suitable case, and which, when in use, may be stretched across said window opening to perform its function as a screen.

Referring to the accompanying drawings, in which similar numerals of reference indicate corresponding parts in all the views, Figure 1 is an elevational view showing the device in position within the lower portion of a window frame, with the lower window sash slightly raised. Fig. 2 is an enlarged longitudinal vertical sectional view taken approximately centrally of the device. Fig. 3 is a transverse sectional view taken on line 3—3 of Fig. 2 looking downward. Fig. 4 is a fragmentary detail illustrating details of construction. Fig. 5 is a transverse sectional view taken on line 5—5 of Fig. 4, and Fig. 6 is a detached view of the cap strip used to secure the screen in distended position.

Referring to the parts, 1 is a case or tube, preferably formed of metal, and longitudinally slotted, as shown at 2 in the sectional view, Fig. 3. Extending longitudinally of the case 1 is a lug or flange 3, which is perforated to permit a securing screw to be passed through the perforation thereof into the window frame 4. Projecting laterally from the lower portion of the said case, is a lug or flange 5, which, like the lug 3, is integral with said case, and is also perforated for the passage of securing means.

Seated in the lower portion of the case is a cap-shaped bottom 6, with which is connected a pin 7, on which the roller 8 is mounted, said roller being provided with a recess or seat 9 to form a bearing for said pin. The roller 8 is provided with a longitudinally extending recess 10, in which is mounted the stem 11, which stem is provided with a non-circular upper end portion 12, which is seated in a correspondingly non-circular recess in the cap 13, which cap serves as a closure for the upper end of said case 1. The upper portion of the roller 8 is somewhat reduced in diameter at 14, whereby a shoulder 15 is provided, and over the reduced portion 14 and resting on said shoulder, there is placed a perforated cap 16. The roller 8 is provided with a slot 17, in which is seated one end of the spring 18, which is wound upon said stem 11, the opposite end of said spring being held within a perforation 19 in the lower end of said stem. It will be observed that the non-circular end portion of the stem 11 projects beyond the roller, as shown in Fig. 2, so that the roller may be rotated against the tension of said spring 18.

Connected at one end with the roller 8, is a screen 20, which passes through the longitudinal slot 2, in said case, and is provided at its opposite end with a rigid bar 21, there being a cap 22, preferably of sheet metal, surrounding said bar and that portion of the screen 20 which is folded thereupon.

Connected with the bar 21 is a cap strip 22, in which are formed key-hole shaped slots 24, as shown in Fig. 6. Screws or tacks 25 are driven into the window frame 4^a, with a portion of such screws or tacks projecting so as to interlock with said slots 24 to lock the screen in distended position, and a tab 23 is connected with said bar 21, as shown in Fig. 2, to afford means for manipulating the screen, and to withdraw it from the case 1.

It is intended that screws or other securing means shall be used to lock the case in position near one side of a window opening, but when it is desired to use the screen, the screen is drawn out, as shown in Fig. 1, and the tab 23 is locked, thereby holding the screen in its distended position, and when desired the tab may be detached from said locking pin or other means, and the tension of the spring 18 will cause the roller 8 to be rotated, thereby winding up the screen 20 within the case 1, within which it is concealed.

Having described my invention, what I

claim and desire to secure by Letters Patent is:—

1. In a screen, the combination of a slotted case provided with attaching flanges, a roller disposed in the casing and provided with a recess in its bottom and provided with a recess from its upper end to a point intermediate of its length, a cup disposed in the case, the vertical wall of which surrounds the bottom of the roller, a screen secured to the roller, spring actuated means within the roller for winding the screen thereon, and a block disposed in one end of the casing and adapted to serve both as a closure for the casing and securing means for the winding means.

2. In a screen, the combination of a case, a laterally extending lug and a longitudinally extending lug integral therewith, a cupped bottom portion, a pin, a roller mounted on said pin, said roller being provided with a longitudinal recess and provided with a slot and a reduced upper portion, a perforated cap on said reduced portion, a stem mounted in said recess, said stem having a perforation therein and having non-circular end portion projecting beyond said roller, a spring having one end disposed in said slot and the other end in said perforation, a cap having a non-circular seat by which said stem is held against rotation, and a flexible screen connected with the roller.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

JOHN ALEXANDER GRANT.

Witnesses:
F. W. GRANT,
JOHN HEMPSTEAD.