F. J. BRUSKY & C. G. VOELKNER.

ROLLER SCREEN.

APPLICATION FILED SEPT. 26, 1910.

1,068,975. Patented July 29, 1913.

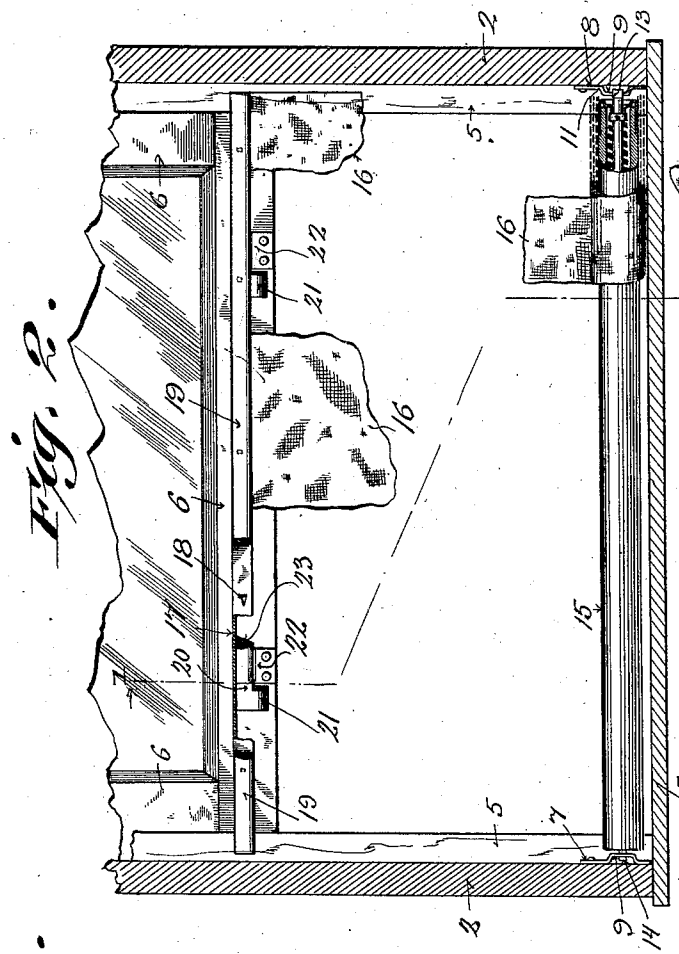

Fig. 2.

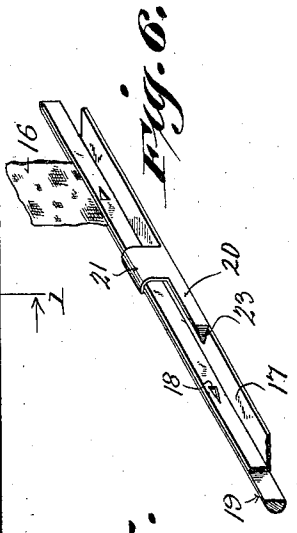

Fig. 6.

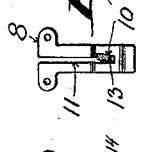

Fig. 5.

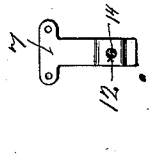

Fig. 4.

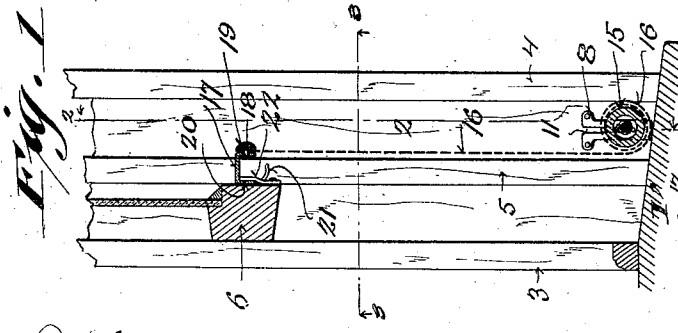

Fig. 1.

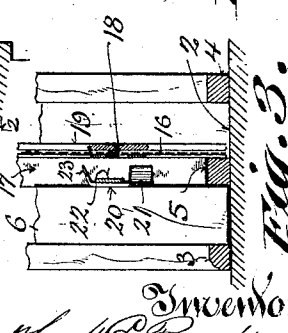

Fig. 3.

Witnesses:
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UNITED STATES PATENT OFFICE.

FRANK J. BRUSKY AND CHARLES G. VOELKNER, OF MILWAUKEE, WISCONSIN, ASSIGNORS TO ADVANCE SCREEN & MANUFACTURING CO., OF MILWAUKEE, WISCONSIN.

ROLLER-SCREEN.

1,068,975. Specification of Letters Patent. Patented July 29, 1913.

Application filed September 26, 1910. Serial No. 583,944.

To all whom it may concern:

Be it known that we, FRANK J. BRUSKY and CHARLES G. VOELKNER, both citizens of the United States, and residents of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented certain new and useful Improvements in Roller-Screens; and we do hereby declare that the following is a full, clear, and exact description thereof.

Our invention has for its primary object to provide a simple, economical and effective spring-controlled roller screen for attachment to window sashes, the construction being such that the window screen may be quickly and readily attached to or detached from a window without cutting or otherwise marring the woodwork, the invention consisting in certain peculiarities of construction and combination of parts as hereinafter set forth with reference to the accompanying drawings and subsequently claimed.

In the drawings Figure 1 represents a longitudinal sectional view of a window equipped with a screen embodying the features of our invention, the section being indicated by line 1—1 of Fig. 2; Fig. 2, a face view of the same partly in section as indicated by line 2—2 of Fig. 1; Fig. 3, a detail cross-section indicated by line 3—3 of Fig. 1; Figs. 4 and 5, detached detail views of the roller brackets, and Fig. 6, a perspective view of a portion of the cloth screen-retaining strip.

Referring by characters to the drawings, 1 indicates the sill-piece and 2 the uprights of a window casing, which uprights are provided with inner and outer beads 3, 4, and an intermediate parting-strip 5, between which strip and the inner bead is slidably fitted the stiles of an inner window sash 6, the outer sash (not shown) being adapted to fit between said strip 5 and bead 4 of said window casing.

The construction of window as above described is of standard type and forms no part of our invention.

Secured to the uprights 2 of the casing adjacent to the sill thereof and between the parting-strip and bead 4 are brackets 7 and 8, each of which brackets are provided with an intermediate offset 9. The offset portion of bracket 8 is provided with a rectangular aperture 10 having a restricted slot upwardly extending therefrom and throughout the entire length of the bracket. The offset portion 9 of the opposite bracket 7 is provided with a circular aperture 12, the latter, together with aperture 10, being adapted to receive a flat non-rotatory journal 13 and a rotatory journal 14 respectively of a spring-controlled roller 15, the said roller being of the Hartshorn type, with the exception that the locking-dogs usually employed are dispensed with. The spring-controlled journal 13, in this instance, is revolved to effect initial winding of the spring and the journal is thereafter fitted into the rectangular aperture before mentioned.

By utilizing offset brackets as above described, ample clearance between the ends of the journals with relation to the uprights is had, while, at the same time, said bearings are so positioned that they will prevent disengagement of the journals liable to occur through end-play, it being understood that the tension of the coiled spring will lock the flattened journal 13 within the offset formed at the junction of the slot and rectangular aperture 10.

By fitting the ends of the roller within the space between the parting rail and outer bead usually occupied by the upper sash, when the latter is lowered, a neat appearance is obtained and this arrangement also permits the edges of a wire screen 16 to fit snugly against one face of said parting-rail, whereby a comparatively tight joint is maintained therebetween. Further, the screen as a whole may, by this construction, be fitted to windows without marring or cutting away any of the standard parts of the sash or frame, this feature being facilitated by the means employed for detachably securing the upper edge of the screen cloth 16 to said window-casing, said construction being as follows:

An angle-iron strip 17 is provided, the vertical flange of which angle-iron strip has stamped from its body portion a series of burs 18. One end of the screen cloth 16 is fitted to the vertical flange and held in position thereon by means of the burs 18, said screen-cloth being secured by a binder 19 that is fitted over the screen edge and secured to the aforesaid flange through engagement with said burs. The vertical flange and binder extend to a point adjacent to the casing uprights 2, said flange exten-

sion being arranged to just clear the adjacent face of the parting-strip 5. By this arrangement the screen cloth edges overlap said parting-strip and render it possible to obtain a practically tight joint between the surfaces of the screen and said parting-strip. The lower edge of the screen cloth 16 is secured in any suitable manner to the roller 15, about which it is adapted to be coiled or uncoiled incidental to movement of the window sash.

The horizontal flange of the angle-iron strip 17 has depending therefrom a pair of vertically disposed ears 20, together with finger grips 21. These ears serve as means of connection for the upper edge of the screen to the lower member of the sash-frame 6, the connection being made through offset tongues 22 that are permanently secured to said sash-member and adapted to grip the ears when the angle-iron bar is inserted in the position shown in Fig. 2 of the drawings. The ears at one end terminate with inturned flanges 23 that serve to add rigidity thereto.

By utilizing a strip constructed as above described, it will be seen that the same may readily be connected or disconnected from the lower sash-member from within. The operator, in attaching the upper end of the screen, holds the gripping fingers and moves the strip to a position just above the offset tongues 22 and thereafter permits said strip to drop into place against the lower sash-member 6, where it is held by the tongues. It will also be observed that the ear and tongue will permit slight endwise play of the strip, whereby the screen edges, when moved up or down, are capable of a compensating adjustment relative to the inner faces of the uprights so as to insure said screen-cloth being evenly rolled about the roller when the window is closed or partially closed. It should be further understood that the roller may be provided with a shield or cover of any suitable design to protect the same, in which instance the cover would be secured to the sill 1.

We claim:

A window casing and sash in combination with a metallic strip detachably secured to the window-sash, the strip comprising an angle-iron member having a horizontal web extending outwardly from said sash to a point approximately flush with edges of the sash parting strips, the said member being also provided with a vertical flange extending from its horizontal web portion and overlapping faces of the sash parting strips, and means for securing the screen to the vertical flange portion of the metallic strip.

In testimony that we claim the foregoing we have hereunto set our hands at Milwaukee in the county of Milwaukee and State of Wisconsin in the presence of two witnesses.

FRANK J. BRUSKY.
CHARLES G. VOELKNER.

Witnesses:
GEO. W. YOUNG,
MAY DOWNEY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."