No. 658,978. Patented Oct. 2, 1900.

A. A. CYR & A. A. AUSTIN.

WINDOW SCREEN.

(Application filed Feb. 7, 1900.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.

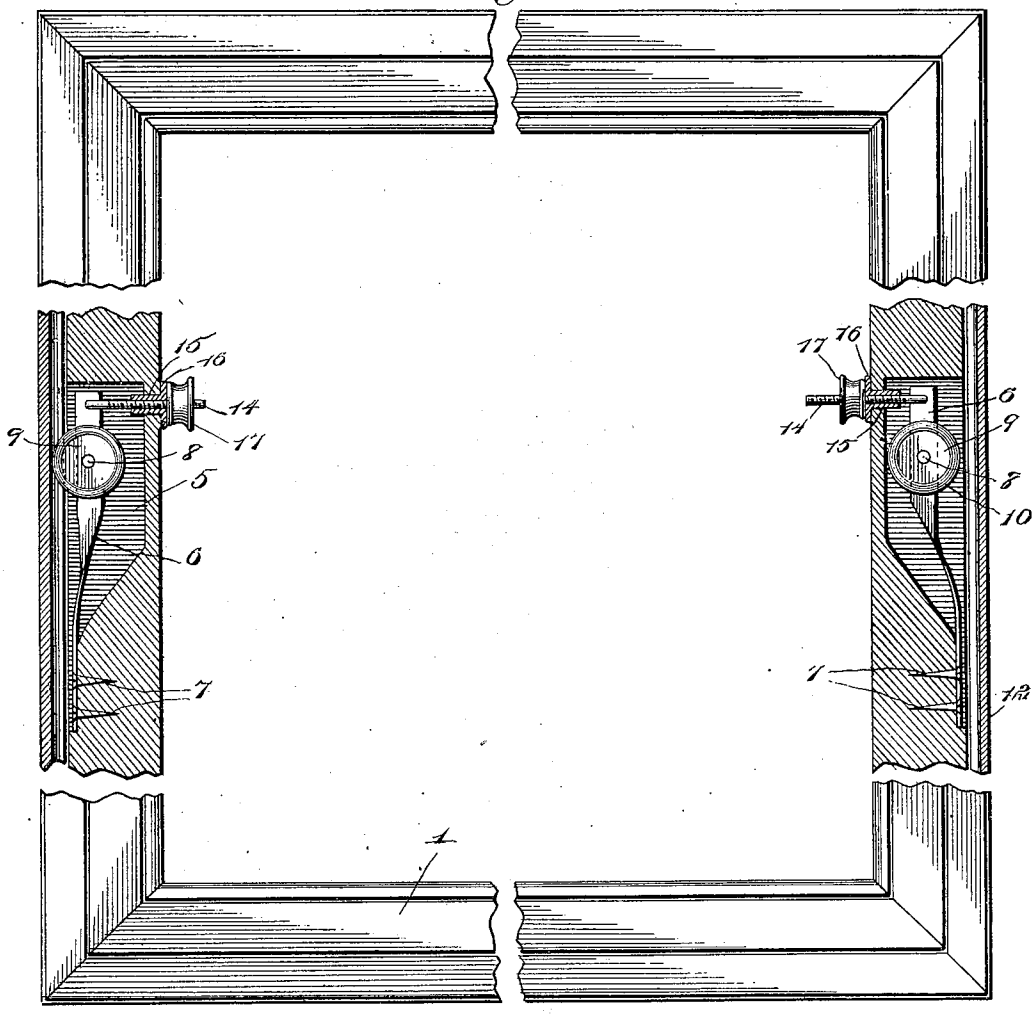


Fig. 2.

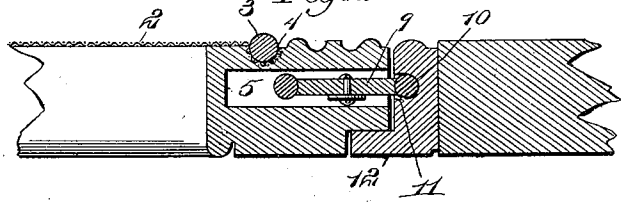
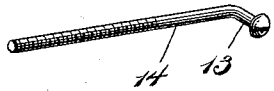


Fig. 3.



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Fig. 4.

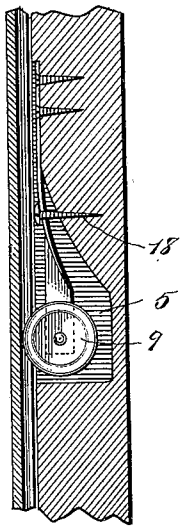


Fig. 7.

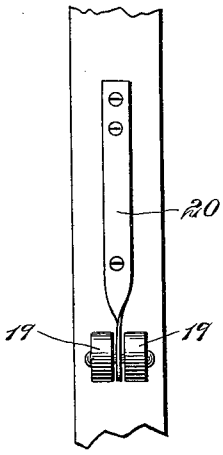


Fig. 6.

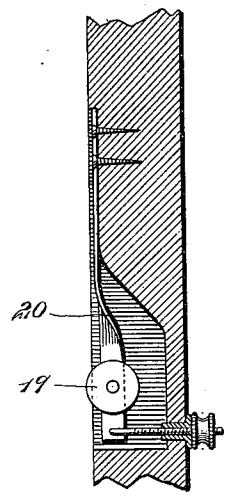
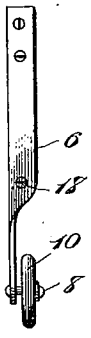


Fig. 5.



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UNITED STATES PATENT OFFICE.

ALFRED A. CYR, OF PROVIDENCE, AND ALBERT A. AUSTIN, OF CRANSTON, RHODE ISLAND.

WINDOW-SCREEN.

SPECIFICATION forming part of Letters Patent No. 658,978, dated October 2, 1900.

Application filed February 7, 1900. Serial No. 4,389. (No model.)

To all whom it may concern:

Be it known that we, ALFRED A. CYR, residing at Providence, and ALBERT A. AUSTIN, residing at Cranston, in the county of Providence and State of Rhode Island, citizens of the United States, have invented certain new and useful Improvements in Window-Screens, of which the following is a specification.

This invention relates to new and useful improvements in window-screens, &c.; and its primary object is to provide a device of this character which is strong and durable, easily operated, noiseless in operation, and which may be readily placed in or removed from position within the window-casing.

To these ends the invention consists in the novel construction and combination of parts hereinafter more fully described and claimed, and illustrated in the accompanying drawings, showing the preferred form of our invention, and in which—

Figure 1 is an elevation of a screen-frame broken away and partly in section, showing the mechanism therein. Fig. 2 is a section through the support, showing the same projected into the casing. Fig. 3 is a detail view of the adjusting-screw. Fig. 4 is a section through a portion of the frame, showing a modified form of support. Fig. 5 is a face view of said support. Figs. 6 and 7 are similar views of another modification.

Referring to said figures by numerals of reference, 1 is the frame of a screen of any suitable construction, preferably held together at the corners by dovetail joints. (Not shown.) The netting 2 is detachably secured to the frame by means of a bead 3, adapted to fit snugly within a groove 4, formed within the frame 1 adjacent to the inner edge thereof.

Each side of the frame 1 is recessed from the outer edge, as at 5. These recesses are each provided with a spring 6, of steel or other suitable material, twisted in the form shown in Figs. 1 and 5 and secured to the edge of the frame 1, preferably by means of screws 7. A stud 8 projects from the inner face of the free end portion of each spring, and upon this stud is loosely mounted a wheel 9, formed of suitable material—as metal, leather, wood, &c.—and provided with a rubber rim or tire 10, which may be readily removed and replaced. If desired, however, the wheel anp tire may be formed of one solid piece of rubber or other similar material. This wheel is adapted to be normally projected from the edge of the frame 1 by the spring 6 and to engage with and travel within a groove 11, extending vertically within the inner surface of the window-casing 12.

The free end of the spring 6 is perforated to receive the headed end 13 of a screw 14 of the form shown in Fig. 3, and which projects through and is slidable within a sleeve 15, mounted within the frame 1 between the recess 5 and the inner edge of the frame. This sleeve is provided with a radial flange 16, against which normally bears the end of a nut 17, mounted upon screw 14 and engaging therewith.

In operation the nuts 17 are tightened upon screws 14, thereby retracting the springs 6 and the wheels 9 thereon, withdrawing the same entirely within recesses 5. The screen may then be placed within the window-casing, and upon unscrewing nuts 17 the springs will throw the wheels 9 out into the slots 11 of the casing.

Instead of providing the screen with two adjustable supports, as in Fig. 1, if desired a support of the form shown in Figs. 4 and 5 may be substituted for one of them. This support is not provided with the adjusting screw and nut, but instead has a screw 18, whereby the tension of the spring may be regulated, as is obvious.

Where screens, &c., of heavy construction are used, we prefer to use a support of the form shown in Figs. 6 and 7. These are each provided with two flat rollers 19, arranged one at each side of the spring 20. This construction presents a broader surface in contact with the window-casing, and is thereby capable of supporting a greater weight.

It will be understood that as the wheels are attached to the springs they will adapt themselves at all times to the unevenness of the window-casing caused by the shrinkage or expansion thereof.

While we have shown and described our support as applied to a window-screen, it will be understood that the same can be used equally as well upon a window-sash, shades, &c.

In the foregoing description we have shown the preferred form of our invention; but we do not limit ourselves, as we are aware that modifications may be made therein without departing from the spirit or sacrificing the advantages thereof, and we therefore reserve the right to make such changes as fairly fall within the scope of our invention.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a window-screen, the combination with the recessed frame, of a twisted spring secured within the recess, a stud thereon, a roller mounted upon the stud, and means for retracting and projecting the wheel as desired.

2. In a window-screen, the combination with the recessed frame, of a spring secured at one end within the recess, a normally-projected wheel mounted upon the free end of the spring, and means for retracting the wheel as desired.

3. In a window-screen, the combination with the recessed frame, of a twisted spring secured at one end within the recess, a stud projecting from the spring, a wheel mounted upon the stud, a rim detachably secured to the wheel, a sleeve secured within the frame, a screw pivoted to the spring and loosely mounted within the sleeve, and a nut for adjusting said screw and spring back and forth within the sleeve.

In testimony whereof we affix our signatures in presence of two witnesses.

ALFRED A. CYR.
ALBERT A. AUSTIN.

Witnesses:
HENRY F. MCCAFFREY,
GEORGE B. BURROWS.