This invention relates to window screens and pertains particularly to a roll-up screen.

The primary object of this invention is to provide, in a manner as hereinafter set forth, a window screen mounted upon a spring controlled roller to be drawn therefrom into position across a window opening.

Another object of the invention is to provide, in a manner as hereinafter set forth, a window screen of the above described character having side guide means of improved construction.

Still another object of the invention is to provide, in a manner as hereinafter set forth, a roll-up window screen having side guide means and an improved means for causing the side edges of the screen to be gripped for holding the screen in any desired position.

A final object of the invention is to provide, in a manner as hereinafter set forth, a roll-up window screen having the above set forth features, which will be strong and durable attractive in appearance, efficient and comparatively inexpensive to manufacture and install.

Other objects and advantages of the invention will become apparent as the description of the same proceeds, and the invention will be best understood from a consideration of the following detailed description taken in connection with the accompanying drawings forming a part of this specification, with the understanding however, that the invention is not confined to any strict conformity with the showing of the drawings but may be changed or modified so long as such changes or modifications mark no material departure from the salient features of the invention as expressed in the appended claims.

Figure 5 is a transverse section taken through one side of the frame as upon line 5—5 of Figure 3 and,

Figure 6 is a transverse section taken through one side of the screen and frame, as upon line 6—6 of Figure 3.

Figuring now to the drawings in detail wherein like numerals of reference indicate corresponding parts throughout the several views, the numeral 1 indicates generally a window frame structure comprising the top rail 2, side rails 3 and bottom or sill portion 4.

For convenience in illustrating, the outer half only has been shown, omitting the sash and inner portion of the frame.

Fitted within the frame adjacent the under side of the top rail thereof is a casing 5, the outer side of which is open as at 6 and extending longitudinally through the casing is a roller 7, which is preferably of the spring controller type similar to the rollers upon which curtain shades are wound, the mounting of this roller being such as to cause the controlling spring to be placed under tension when the screen is unwound therefrom to cause the rewinding of the screen to take place in the same manner as that of a window shade.

Wound upon the roller 7 is a length of screen wire fabric 8 which is of the same width as the window frame and of sufficient length to extend from the top to the bottom thereof when unwound from the roller.

Secured to the inner face of each side rail 3 to extend throughout the length of the same from the under side of the casing to the sill 4 is a screen fabric guide track indicated generally by the numeral 9 and comprising a pair of members 10 and 11. Each of the members is substantially L-shaped in cross section, the member 10 having the portion 12 arranged at right angles to the face of the adjacent rail 3 while the other portion 13 of this member rests against the face of the adjacent rail 3 as is clearly shown in Figures 5 and 6. The free edge of the portion 13 is formed to set up the turned back tongue 14 arranged in spaced relation with respect to the portion 13 to set up a guide groove 15.

This member 10 is designed to be secured to the side rail of the frame with the back thereof toward the outside, suitable securing screws or other appropriate devices 16 being
passed through the portion 13 of the member into the rail.

Projecting from the inner face of the portion 13 of the member 10 is a plurality of spaced posts 17 each being provided adjacent its outer end with an aperture 18, the apertures of the posts being in alignment longitudinally of the member.

The other member 11 has the portion 19 arranged in spaced aligned relation to the inner face of the portion 12 of the member 10 and has its other right angularly related portion 20 positioned against the inner face of the portion 13 of the adjacent member, the free edge of the portion 20 being designed to engage in the slot 15, a plurality of transversely extending slots 21 being formed in the portion 20 for the extension of the posts 17 therethrough. As will be readily seen the slots 21 permit the member 11 to move on the posts toward or away from the inner face of the portion 12 of the member 10.

Extending through the apertures 18 of each series of posts is a locking bar 22 which carries upon each end beyond the adjacent post a cam member 23 and at its central portion above the center posts 17 a combined cam and actuating arm 24, the arm portion of this member being indicated by the numeral 25.

Upon reference to Figures 5 and 6 it will be readily seen that upon oscillating the bars 22 the cams will be caused to swing toward or away from the portion 19 of the member 11 and when swung toward this portion the member 11 will be caused to move toward the portion 12 of the member 10.

The screen fabric 8 has secured across its lower edge the clip bar 26 which grips the screen and has one side thereof formed to set up the flange 27 which is located upon the inner side of the screen and adapted to be employed as a finger hold for the manipulation of the screen. The lower edge of this bar is preferably provided with a rubber or fabric strip 28 designed to contact with the sill of the window when the screen is down.

The ends of the clip bar 26 extend between the members of the screen guides 9 and, it will be readily seen that, when the locking bars 22 are oscillated to swing the cams 23 and 24 inwardly, the members 10 and 11 of each guide will grip the end of the bar 26 arranged therewith, to hold the screen in any desired position.

Having thus described our invention, what we claim is:

1. In a roll-up window screen structure of the character described, a guide and clamping means for each longitudinal edge of the screen, comprising an elongated substantially L-shaped member adapted to be arranged longitudinally of the inner face of a window frame with one section thereof secured against the frame, the other section of said member projecting at right angles from the inner face of the frame, said frame abutting section having the free edge thereof turned back to set up a longitudinally extending guide groove, a plurality of pin members projecting from the free face of the frame abutting section, an elongated shiftable body of substantially L-shaped cross sectional design arranged in parallel relation to the first mentioned member and having one section thereof provided with a plurality of apertures to receive said pins, said apertured section being positioned against the pin carrying face of the frame abutting section of the first mentioned member and having its free edge arranged in said groove, a bar carried by said pin members longitudinally of the shiftable member, and means carried by said bar to shift the shiftable member relative to the first mentioned member to grip a screen fabric therebetween.

2. In a roll-up window screen structure of the character described, a guide and clamping means for each longitudinal edge of the screen, comprising an elongated substantially L-shaped member adapted to be arranged longitudinally of the inner face of a window frame with one section thereof secured against the frame, the other section of said member projecting at right angles from the inner face of the frame, said frame abutting section having the free edge thereof turned back to set up a longitudinally extending guide groove, a plurality of pin members projecting from the free face of the frame abutting section, an elongated shiftable body of substantially L-shaped cross sectional design arranged in parallel relation to the first mentioned member and having one section thereof provided with a plurality of apertures to receive said pins, said apertured section being positioned against the pin carrying face of the frame abutting section of the first mentioned member and having its free edge arranged in said groove, a bar carried by said pin members longitudinally of the shiftable member, and means carried by said bar to shift the shiftable member relative to the first mentioned member for the purpose of gripping the edge of a screen fabric therebetween.

3. In a roll-up window screen structure of the character described wherein a screen fabric is adapted to be extended longitudinally of a window frame, a guide groove structure therefor and in which each longitudinal edge of the fabric is adapted to extend, comprising an elongated member of substantially L-shaped cross sectional design, designed to be secured with one section thereof against the inner face of the window frame and the other section projecting at right angles therefrom, an elongated shiftable member of substantially L-shaped cross sectional design having one
section thereof against the exposed face of that section of the other member abutting the frame and having its other section arranged parallel to and spaced from the outwardly directed section of the first mentioned member, an oscillatory bar arranged longitudinal of each structure, and cam elements carried by each bar designed to bear against the outwardly directed section of the shiftable member, when the bar is oscillated, to actuated the shiftable member substantially as described.

In testimony whereof we affix our signatures.

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