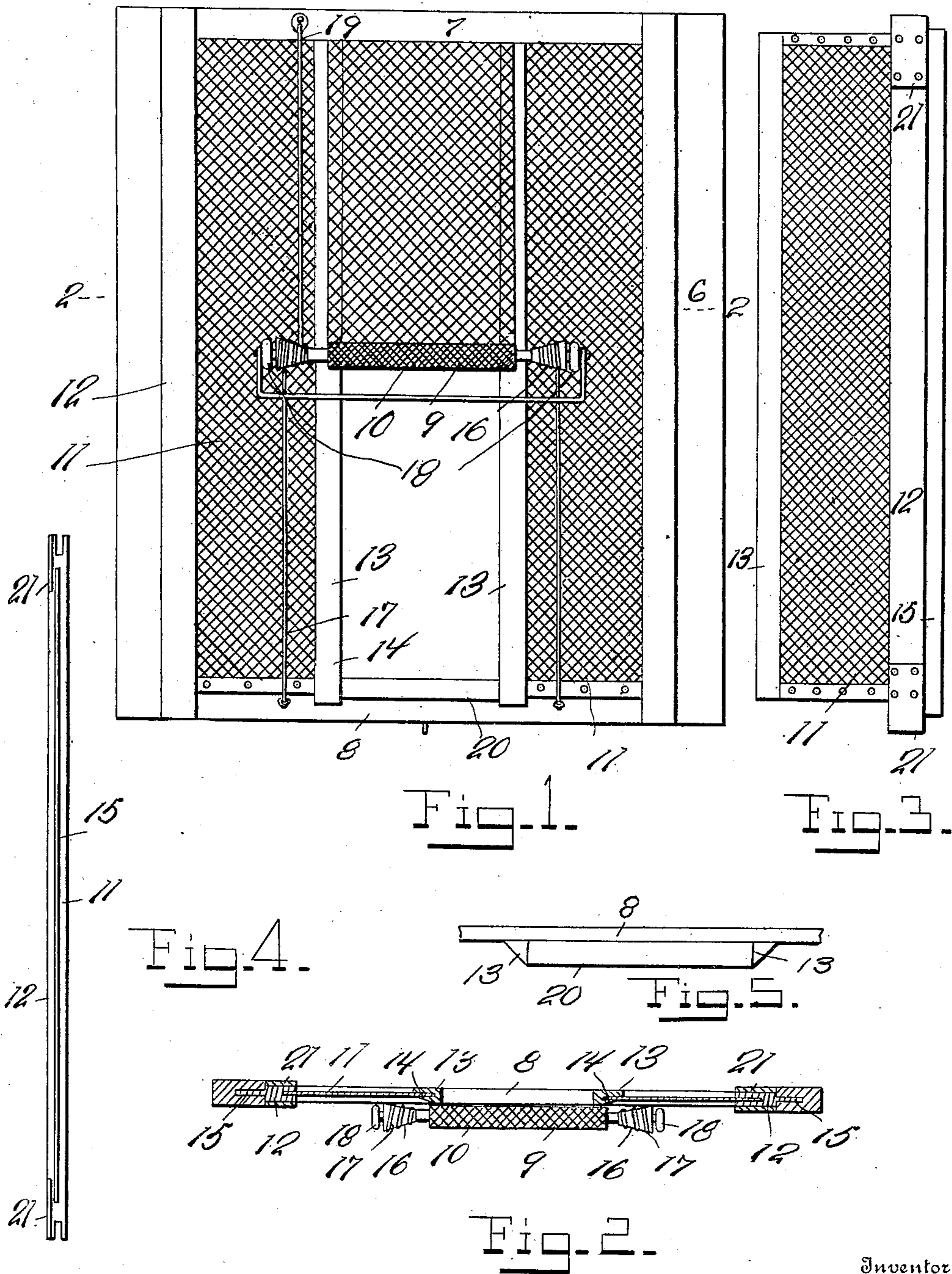


No. 862,644.

PATENTED AUG. 6, 1907.

F. M. KEPLER.  
SCREEN.

APPLICATION FILED AUG. 3, 1906.



Witnesses  
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# UNITED STATES PATENT OFFICE.

FRANCIS M. KEPLER, OF HANNA CITY, ILLINOIS.

## SCREEN.

No. 862,644.

Specification of Letters Patent.

Patented Aug. 6, 1907.

Application filed August 3, 1906. Serial No. 329,059.

*To all whom it may concern:*

Be it known that I, FRANCIS M. KEPLER, a citizen of the United States, residing at Hanna City, in the county of Peoria, State of Illinois, have invented certain new and useful Improvements in Screens; and I do hereby declare the following to be 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.

My invention relates to window screens, and has for its object, generally, to improve the construction shown in my prior patent No. 692,455, dated February 4, 1902, and in particular to adapt the main features shown in said patent to screens of the extension type, capable of adjustment to fit any ordinary sized window, thus embodying in a single screen the advantages heretofore, of necessity, separately limited to the above mentioned types.

Described in brief, the invention comprises a screen having top and bottom pieces, a pair of side sections, laterally movable along the inner face of said top and bottom pieces, and a screen proper having its upper end attached to said top piece, and its lower end to a roller disposed transversely of said side sections and movable thereon.

With this end in view, the invention consists in the novel construction, combination, and arrangement of parts, all as hereinafter fully described and illustrated in the accompanying drawings, in which:

Figure 1 is a front elevation of a window casing provided with an extension screen, constructed in accordance with this invention. Fig. 2 is a transverse section taken on the line 2—2 of Fig. 1. Fig. 3 is a view in elevation of one of the side sections taken from the opposite side from that shown in Fig. 1. Fig. 4 is an edge view of the same. Fig. 5 is a bottom plan view of a portion of the bottom piece of the frame, showing the beveled strip secured thereto.

Like parts are designated by corresponding numerals in the several views.

Referring more particularly to the drawings, the screen, which is shown in Fig. 1 in place in the casing 6 of a window, comprises top and bottom pieces 7 and 8, respectively, a movable screen 9 of any suitable material, such as wire netting, attached at its upper end to the top piece, and at its lower end to a roller 10, and a pair of side sections 11, laterally movable along the inner face of the top and bottom pieces, the side edges of each section being formed by pairs of strips, between which the facing of netting of each section is secured. The outer member of each pair of strips extends partly across the top and bottom pieces of the screen frame at its respective ends, as shown. For clearness of description, the pair of strips 12 of each section adjacent the

window casing 6, will be termed "outer strips" and those over which the roller passes will be termed "inner strips" and be designated by numeral 13.

The front members of the inner pairs of section strips 13 are provided with oppositely-disposed outward bevels 14, extending the entire length thereof, formed in a manner similar to the beveled strips shown in my original patent, and provided for a similar purpose. Each outer pair of strips 12 carries a metallic plate or insert 15, secured between the members thereof, and fitting in a correspondingly-shaped groove formed in each side of the window casing to hold the screen in place therein.

Roller 10, to which the lower end of the screen proper 9 is attached, is provided with terminal drums 16, upon which are wound cords 17, the lower ends of which are attached to eye-bolts mounted in the bottom piece 8, the drums being grooved for the better reception of said cords. The roller is transversely disposed with respect to the side sections, and extends beyond the beveled edges of each section a sufficient distance to admit of the lateral adjustment of said sections. Owing to the beveled construction of said edges, it will be obvious that the side edges of the fabric forming the screen proper will be taken downwardly over the bevels to the face of said sections, thus forming a practically continuous screen, as shown in Fig. 1 and the cross section thereof.

By reason of the cords being fixed, if the roller is moved upwardly, it will be rotated by the cords to wind up the screen, and if the roller be lowered, the screen will in like manner be unwound. To facilitate the manipulation of the roller, a knob 18 of porcelain, or other material, is secured to each end thereof exteriorly of the drums.

The roller is retained in its upward or raised position with the screen wound thereon, by means of a keeper 19, secured to the top piece 7, the hook end of said keeper fitting around the adjacent roller drum. The bottom piece 8 carries an outwardly beveled strip 20, secured to its outer side face, as shown, directly below the movable screen, which latter fits closely against the face of said strip, when lowered, and is retained in such position by the tension of the cord upon the eye-bolts and roller drums, and by its contact with the outwardly beveled face of strip 20.

The rear member of each outer pair of strips has secured to its ends metal straps 21, extending beyond the top and bottom edges of said strips and across the respective frame pieces 7 and 8, such straps cooperating with the extended front member of the section strips to form troughs, in which said frame pieces fit, thus permitting the side sections to be moved laterally towards or away from each other, along the inner face of the frame pieces, and, at the same time, preventing

their accidental displacement from said frame pieces. The inward movement of the sections is limited by the beveled strip 20, the sides of which act as stops or shoulders, against which the inner edges of the side sections  
5 contact.

The screen can be obviously adjusted to fit windows of any width, by means of the lateral adjustment of its side sections, with respect to the top and bottom pieces of the frame, and should the width of the window for  
10 which the screen is desired be less than the length of the top and bottom pieces, it will only be necessary to cut off a short section from the ends of said pieces, which are, in practice, formed of sufficient length for this purpose. The ends of the strips of the side sec-  
15 tions may, in like manner, be sufficiently extended to admit of a similar operation.

Owing to the beveled formation of the inner edges of the side sections and to the extension of the edges of the screen proper beyond each bevel, the several screen  
20 sections will fit so closely together as to result in the formation of a practically continuous screen.

Throughout the claims, the term "fabric" is employed with reference to the screen proper, and the term "frame" to the general outer structure of the  
25 screen.

It will be understood that, in practice, modifications of the specific construction shown, may be made, without departing from the spirit of the invention, which is, therefore, not intended to be limited to such exact con-  
30 struction.

What is claimed, is:—

1. A window screen comprising a frame having top and bottom pieces, a pair of side screen sections, and a rolling screen disposed transversely of and overlapping said side  
35 sections, said rolling screen comprising a fabric attached to said frame top piece and a roller to which the opposite end of said fabric is attached, said roller being adapted to run on said side sections, to roll or unroll said fabric, whereby the height of the opening between said side sec-  
40 tions may be regulated.

2. A window screen comprising a frame having top and bottom pieces, a pair of side screen sections adapted to contact at opposite ends with the inner face of said top and bottom pieces, a rolling screen disposed transversely  
45 of and overlapping said side sections and comprising a fabric attached to said top piece and a roller to which the opposite end of said fabric is fastened, said roller being adapted to run on said side sections, terminal drums carried by said roller and cords attached to said bottom piece

and wound upon said drums to rotate the roller when it is  
50 raised or lowered, whereby the height of the opening between said side sections may be regulated.

3. An extension window screen comprising a frame having top and bottom pieces, a pair of side screen sections laterally movable along the inner face of said top and bot-  
55 tom pieces, and a rolling screen disposed transversely of and overlapping said side sections, said rolling screen comprising a fabric attached to said frame top piece, and a roller to which the opposite end of said fabric is attached, said roller being adapted to run on said side sections, to  
60 roll or unroll said fabric, whereby the height of the opening between said side sections may be regulated.

4. An extension window screen comprising a frame having top and bottom pieces, a pair of side screen sections laterally movable along the inner face of said top and bot-  
65 tom pieces, a rolling screen disposed transversely of and overlapping said side sections, said rolling screen comprising a fabric attached to said top piece and a roller to which the opposite end of said screen is fastened, said roller being adapted to run on said side sections, whereby  
70 the height of the opening between said side sections may be regulated, and separate means for retaining said roller in its raised or lowered position.

5. An extension window screen comprising a frame having top and bottom pieces, a pair of side screen sections laterally movable along the inner face of said top and bot-  
75 tom pieces, and a rolling screen disposed transversely of and overlapping said side sections, said rolling screen comprising a fabric attached to said frame top piece and a roller to which the opposite end of said fabric is attached, said roller being adapted to run on said side sections, ter-  
80 minal drums carried by said roller, cords attached to the bottom piece of said frame and wound upon the roller to rotate the same when it is raised or lowered, means carried by said top piece and adapted to engage one of said  
85 drums to hold the roller in raised position, and means carried by said bottom piece adapted to engage and retain the roller in lowered position.

6. An extension window screen comprising a frame having top and bottom pieces, a pair of side sections laterally  
90 movable along the inner faces of said top and bottom pieces, said sections having their inner edges formed with oppositely disposed outwardly extending bevels, a fabric attached at one end to said top piece and having its side edges taken downwardly on the bevels to the face of said  
95 sections, and a roller disposed transversely of said sections to run thereon, and to which the opposite end of the fabric is attached, said roller having terminal drums, and cords wound upon the drums and attached to said bottom piece to rotate the roller when it is raised or lowered.  
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In testimony whereof, I affix my signature, in presence of two witnesses.

FRANCIS M. KEPLER.

Witnesses:

Z. L. PIERCE,  
A. MOORE.