

M. G. WOOD.
WINDOW SCREEN.
APPLICATION FILED AUG. 23, 1911.

1,015,413.

Patented Jan. 23, 1912.

2 SHEETS—SHEET 1.

FIG. 1

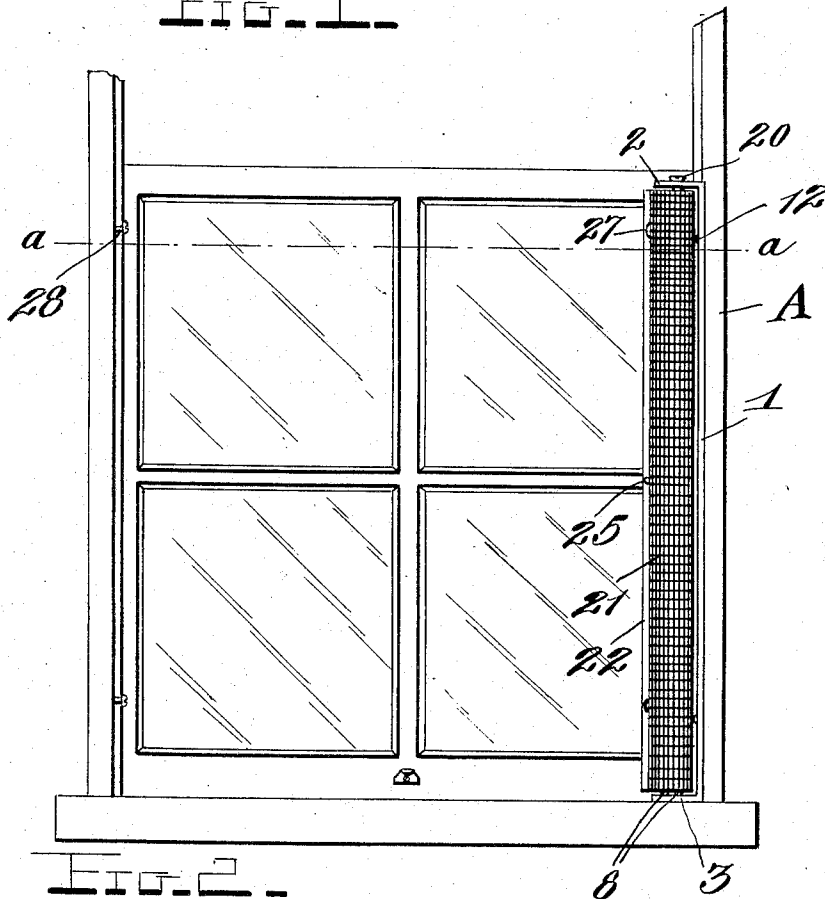
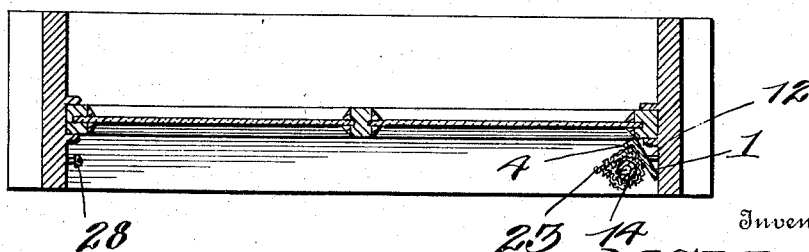


FIG. 2



Witnesses

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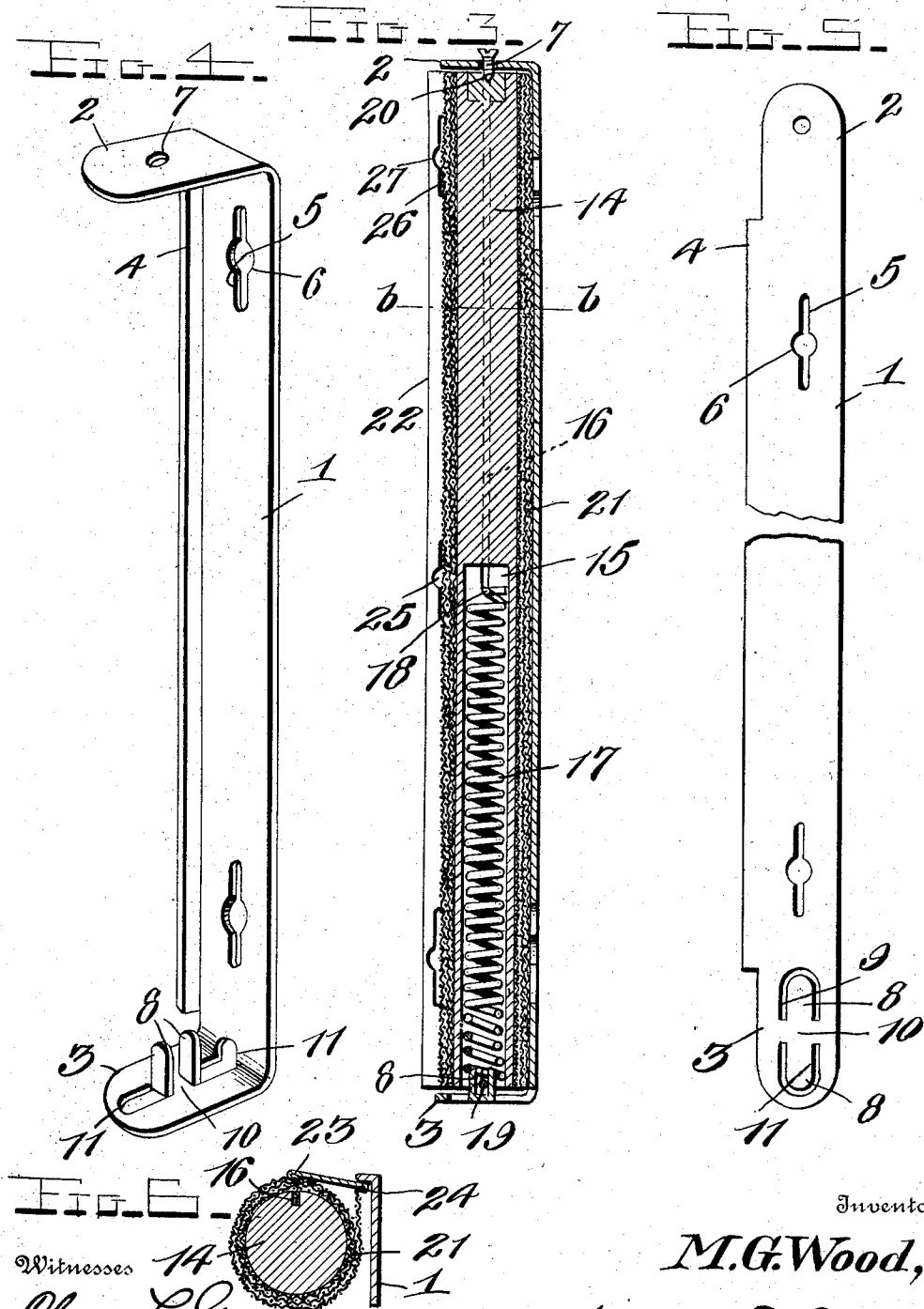
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UNITED STATES PATENT OFFICE.

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WINDOW-SCREEN.

1,015,413.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, MYRON G. WOOD, a citizen of the United States, residing at Hillsdale, in the county of Hillsdale and State of Michigan, have invented certain new and useful Improvements in Window-Screens, of which the following is a specification, reference being had to the accompanying drawings.

10 This invention relates to improvements in window screens and especially with reference to the construction of the roller of a shade or screen, and the combination therewith of an attaching device of improved construction whereby a window screen may be readily attached to a window, and may be as readily detached therefrom when desired, the invention consisting in the construction, combination and arrangement of devices, hereinafter described and claimed.

20 One object of my invention is to provide an improved attaching strip which may be readily and in an instant applied to or removed from a window frame or casing, and which is formed with supporting brackets for the ends of the screen roller.

30 Another object of my invention is to improve the construction of the roller on which the screen is wound, and to so combine the spring therewith, as to cause the spring to form one of the bearings and one of the attaching devices for the roller.

35 In the accompanying drawings—Figure 1 is a side elevation showing my improved window screen in place in a window frame. Fig. 2 is a transverse sectional view on the plane indicated by the line *a—a* of Fig. 1. Fig. 3 is a detail longitudinal sectional view of the roller and the attaching strip therefor. Fig. 4 is a detail, perspective view of the attaching strip. Fig. 5 is a similar view of the blank from which it is made. Fig. 6 is a detail transverse sectional view on the plane indicated by the line *b—b* of Fig. 3.

45 For the purposes of this specification, a window frame or casing is indicated at A. In accordance with my invention, I provide an attaching strip 1. This strip is preferably made of sheet metal, is of suitable dimensions, and its ends are bent from one side thereof at right angles thereto, to form brackets 2, 3. That portion of the strip which is between the brackets is also provided at one side, which is disposed next one of the guide strips of the window, with a flange 4, which is bent at right angles to said

strip 1. The said strip is further provided at points at suitable distances from its ends with longitudinal attaching slots 5, the central portion of each of which is enlarged to form an opening 6. The bracket 2 is provided with a bearing opening 7. The bracket 3 is provided with a pair of spaced lugs 8 which in practice are integral therewith, and struck up therefrom, the blank from which the strip is formed being provided in the end portion thereof, which is to form the bracket 3, with a pair of reversely disposed U-shaped kerfs 9, which form the sides and outer ends of the lugs 8, the said lugs being bent from, and at right angles to the bar 10, which is formed between the openings 11 from which the lugs are bent. The bracket 3 may, however, be otherwise constructed with its spaced lugs 8, within the scope of my invention, and I would have it understood that I am not limited to the exact construction of the attaching strip with its brackets herein shown and described.

80 In practice the attaching strip is secured to one side of the window frame in a vertical position, with the bracket 3 at its lower end. To attach the strip to the window frame, the latter is provided with a pair of headed screws 12. When the strip is being attached to the window frame, the heads of the screws are passed through the openings 6, and the strip is then moved downwardly a slight distance so as to engage the shanks of the screws with the upper ends of the slots 5. It will be understood that by this means, the strip may be almost instantly attached to one side of the window frame, and it may be as readily detached therefrom when it is desired to discontinue the use of the screen.

100 In connection with the attaching strip and its brackets, I provide a shade or screen roller 14, which is provided with a bore 15 therein, and of suitable length, the bore being open at one end of the roller. The roller is also provided in one side with a radial slit or kerf 16. A coil spring 17 to revolve the roller in one direction and cause the same to coil the screen or shade thereon, is disposed in the bore of the roller. The inner end of the said spring is attached as at 18, to the roller. The outer end of the said spring may extend beyond the open end of the roller and terminates in a transversely disposed bar 19. The roller is

mounted for rotation between the brackets of the attaching strip, a screw or other like device 20, being placed through and bearing in the opening 7 of the bracket 2, and screwed into the closed end of the roller at the center thereof, the projecting end of the spring at the other end of the roller being placed over and around the lugs 8. Preferably the attaching strip is secured to the window frame with the bracket 3 at the lower end of the attaching strip, so that the roller by its weight keeps the lower end of the spring engaged with the lugs of the said lower bracket. Hence the spring coacts with the lugs to form a bearing and attaching device for the lower end of the roller.

The screen 21 is here shown as of wire gauze. It may be in practice, if preferred, an ordinary shade or may be made of any suitable material. One end of the screen is attached to the roller by inserting the same in the kerf of the roller. The screen is wound upon the roller and when its free end is drawn across the window the roller is revolved against the tension of its spring. The spring as will be understood serves to revolve the roller in the reverse direction and wind up or coil the screen thereon, when the free end of the screen is released. I also provide an attaching strip 23 for the free end of the screen. This attaching strip is in practice made of sheet metal. Its side edges are doubled to form flanges 23, 24, the latter flange being doubled, and the free end of the screen being secured between the folds of the said flange, as shown. This attaching strip is provided at its center with a suitable button or handle, 25, and is provided near its ends with longitudinal slots 26, each of which has at its center, an opening 27. Headed screws 28 in the side of the window frame opposite that in which the roller is mounted serve by engagement with the openings in slots of the strip 23 to enable the latter to be detachably secured so as to hold the screen in stretched position across the window, and by detaching its strip from this headed screws, which it will be understood can be instantly done, the spring will then instantly wind up the screen and dispose the same in coiled position out of the way of the roller.

While I have herein shown and described my attaching strip and screen roller, as disposed in one side of a window, it will be understood that it may be disposed across the top of a window or in any other suitable way.

While I have herein shown and described what I now consider a preferred embodiment of my invention, I would have it understood that changes may be made in the form, construction, and proportion of the several parts without departing from the spirit of my invention, and within the scope of the appended claims.

I claim:—

1. In combination with an attaching device having a pair of spaced lugs, a screen roller having a coil spring in one end thereof, the outer end of said coil spring being provided with a transverse bar and disposed on the outer side of said pair of lugs, so that said pair of lugs project into said end of the spring, the transverse bar of the spring being disposed between the said lugs, the said lugs and spring coacting to form a bearing and support for the said end of the roller.

2. In combination with an attaching device having a projection, a screen roller having a spring at one end thereof, to engage said projection and coact therewith to form a bearing and support for said end of the roller.

3. An attaching strip of the class described provided with a pair of brackets, one of said brackets having a pair of spaced lugs projecting therefrom at right angles thereto, in combination with a roller having a bore at one end, a coil spring in said bore, having its inner end attached to said roller, and provided at its outer end with a bar, the said bar being inserted between said lugs, and a bearing connecting the other end of the roller to the other bracket of the attaching strip.

4. An attaching strip of the class described provided with a pair of integral brackets at its ends bent at right angles thereto, one of said brackets being provided with a pair of spaced lugs integral therewith and struck up therefrom, in combination with a roller mounted in one of said brackets and provided in its opposite end with a coil spring, the outer end of the said spring being engaged with the said spaced lugs and co-acting therewith to form a bearing and support for the corresponding end of the roller.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

MYRON G. WOOD.

Witnesses:

A. L. GUERNSEY,
J. S. PARKER.