Feb. 2, 1932. J. B. PETRO 1,843,731

ROLLING WINDOW SCREEN

Filed Nov. 15, 1929 2 Sheets-Sheet 1

Fig. 1.

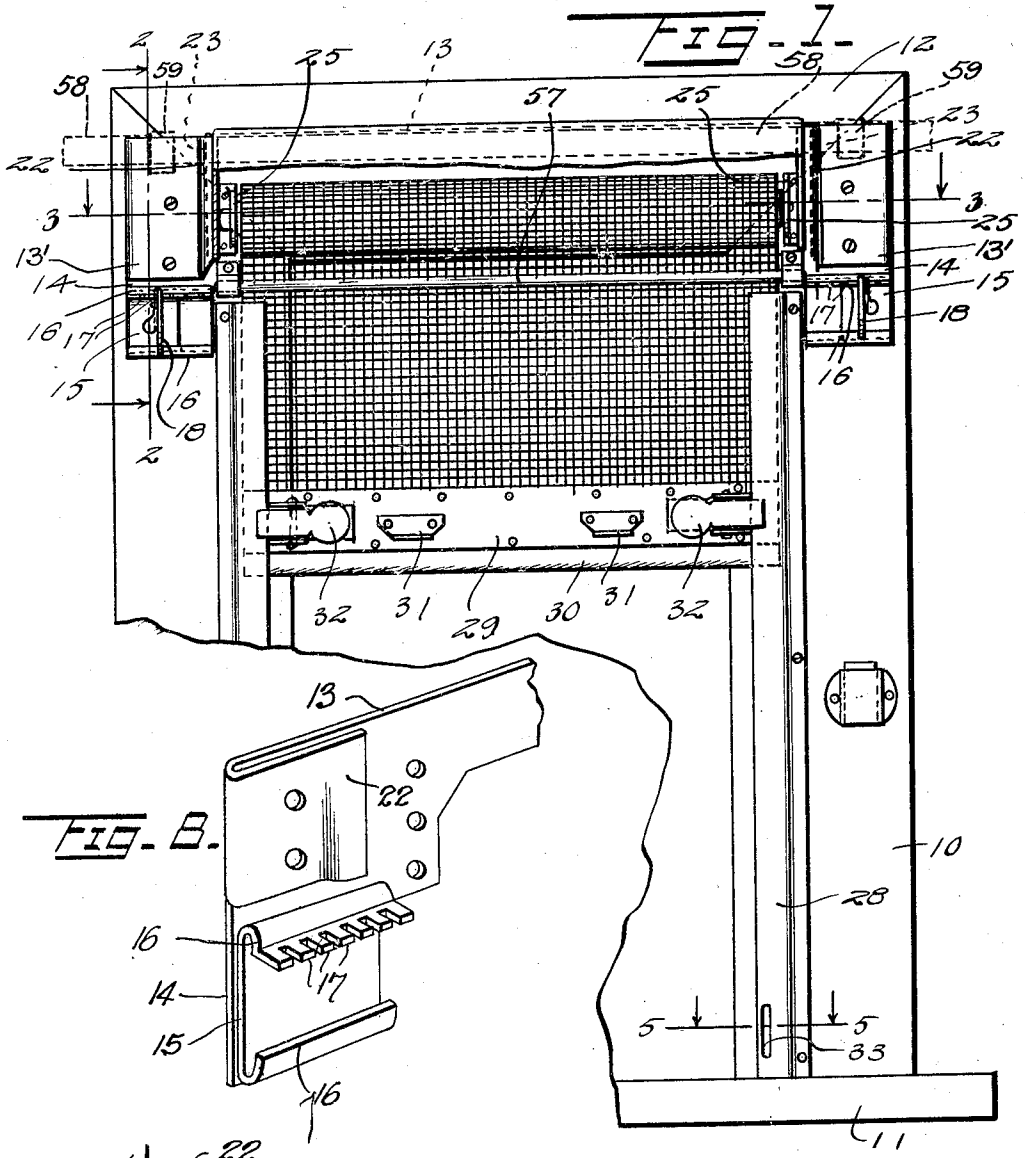


Fig. 8.

Fig. 2.

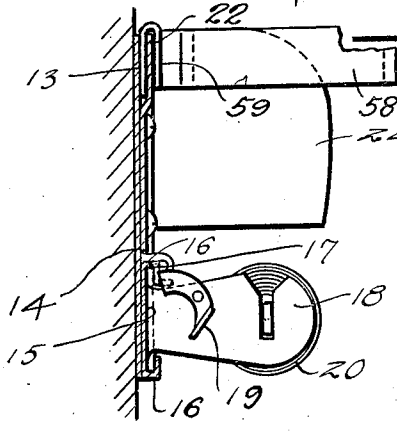
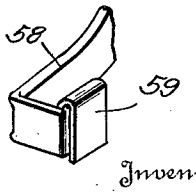


Fig. 7.



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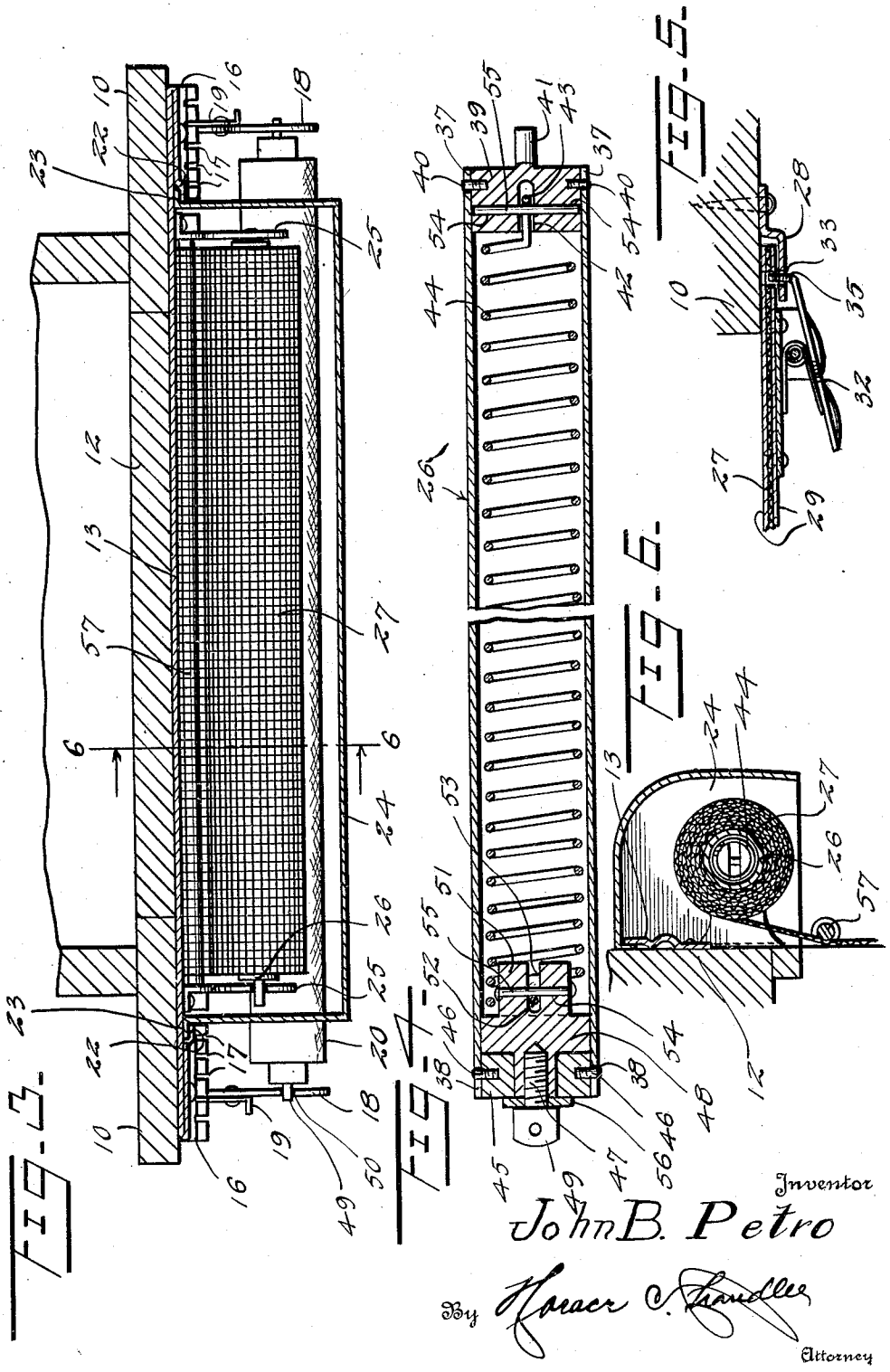


Fig. 3.

Fig. 4.

Fig. 5.

Fig. 6.

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UNITED STATES PATENT OFFICE

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ROLLING WINDOW SCREEN

Application filed November 15, 1929. Serial No. 407,505.

This invention relates to new and useful improvements in screens, and particularly to rolling screens for windows.

One object of the invention is to provide a device of this character which can be readily applied to the ordinary window, without modifications thereto.

Another object is to provide a device of this character which includes novel and efficient means for holding the screen in window closing position.

Another object is to provide for the efficient support of the screen roller, the shade roller, and for the curtain supporting rods.

A further object is to provide a novel spring roller for the screen cloth.

Other objects and advantages will be apparent from the following description when taken in connection with the accompanying drawings.

In the drawings:

Figure 1 is an elevation of a window, showing the application of the invention, a portion of the screen casing being broken away.

Figure 2 is an enlarged vertical sectional view on the line 2—2 of Figure 1.

Figure 3 is a transverse sectional view on the line 3—3 of Figure 1, the screen and roller being in elevation.

Figure 4 is an enlarged longitudinal sectional view through the screen roller.

Figure 5 is a transverse sectional view on the line 5—5 of Figure 1, but showing the screen in lowered position, and the latch member engaged in the slot of the guide.

Figure 6 is a transverse sectional view on the line 6—6 of Figure 3.

Figure 7 is a fragmentary perspective view of the curtain rod used with the present bracket.

Figure 8 is a detail showing the hood, and shade bracket supports.

Referring particularly to the accompanying drawings, 10 represent the vertical side portions, 11 the ledge, and 12 the heading, of a window frame, in connection with which the present invention is used.

Secured to, and extending across the face of the heading 12, is a plate 13, the end portions of which extend downwardly, as indicated at 14, on the faces of the side portions of the window frame, and in the same plane as the body of the plate. Secured on the face of each of the portions 14 is a transversely extending plate 15, having its upper and lower edges bent inwardly toward each other, as shown at 16, and one of said portions 16 being formed with a plurality of notches 17. Slidable on this plate 15, with its ends engaged under the edges 16, is the base of a shade bracket member 18, said member having a pivoted lever 19 mounted thereon, and provided with an enlarged pivot portion adapted to be successively engaged in the before-mentioned notches 17, to hold the bracket in various adjusted position, in accordance with the length of the roller 20, of the shade 21. Portions 13′ of the plate 13, above the members 15, are turned inwardly, to lie on the said plate, and have their free ends bent outwardly from the plate, as indicated at 22, and slipped into the space thus formed between the plate 13 and the end portion 22, is the terminal flange 23, of the hood or cover 24, which houses the screen roller, to be later described.

Mounted on the plate 13, adjacent the portions 22, are the brackets 25, which support the spring roller 26, on which is wound the screen strip or sheet 27, and which is housed by the hood 24, as before mentioned. Secured to the faces of the side members 10, of the window frame, and extending vertically and longitudinally thereof, are the metal strips 28, which form the guides for the edges of the screen strip or sheet 27. Carried by the outer or lower end of the screen sheet 27 is a metal binding 29, in the lower edge of which is secured a weatherstrip member 30, for engagement with the window-ledge, when the screen is pulled down into closed position. This binding member 29 is provided with the handles 31, which are to be grasped when the screen is to be moved upwardly or downwardly, as will be readily understood. Pivotally mounted on the end portions of the member 29 are the latch members 32, each having its outer end extended inwardly into sliding contact with the outer face of a guide strip

28, and arranged to engage in a slot 33 formed in said strip, adjacent its lower end, said latch end being designated by the numeral 34, and having a notch 35, in its upper edge, for engagement with the upper end wall of the slot 33, to retain said latch within said slot, and thereby hold the screen sheet in lowered position, with the weatherstrip properly engaged with the window ledge.

Referring particularly to Figure 4, of the drawings, there is shown the spring roller for the screen sheet 27. This roller includes the tube 26, on which the screen sheet 27 is secured and wound. In the opposite ends of the tube are formed the inwardly directed pairs of notches 37 and 38, respectively, and fitted into one end of said tube is a block 39, having radial pins 40 which enter said notches 37, to maintain said block from rotation independently of the tube. Projecting from the center of the outer end of the block 39 is the pintle 41, which is adapted to be received in one of the brackets 25. The inner portion of the block 39 is formed with a notch 42, in which is disposed the looped end 43, of the coil spring 44. Disposed in the other end of the tube 36 is a block 45, said block having the radial pins 46 engaged in the notches 38, of the tube end. Disposed loosely through the center of the block 45 is a screw 47, the inner end of which is properly held in the block 48, disposed within the tube, inwardly of said block 45. The outer end of said screw is provided with a flat head 49, for engagement in the other of the brackets 25, such bracket having a slot, as shown at 50. The inner end of the block 48 is slightly reduced in diameter, as at 51 to be received in the end coils of the before-mentioned spring 44. This end of the spring is provided with a loop 52, which is disposed within the notch 53, of said reduced end of the block 48. Formed transversely through each of the blocks 39 and 48, in intersecting relation to the notches thereof, are the openings 54, which receive the pins 55, for holding the spring ends.

Disposed between the head of the screw 47, and the outer end face of the block 45, is a washer 56. It will thus be seen that the roller may rotate but that one end of the spring is held, whereby to permit said spring to be put under tension, when said roller is rotated in one direction, and is permitted to unwind, when the roller is permitted rotation in the other direction, such second-named rotation being caused by the unwinding of the spring. Secured across the upper portion of the window frame is an idler roller 57, beneath which the screen sheet passes, whereby said sheet is held in proper position for passage into the guides 28.

In Figure 2 there is shown the end of the curtain or drapery rod 58, in proper position, the same being provided with hooks 59, which engage over the upper edges of the portions 22, as clearly seen in this illustration, in Figure 7, and also in Figure 1.

What is claimed is:

1. In a combination including a window frame, a plate mounted on the heading thereof carrying brackets for supporting the roller of a rolling screen, the end portions of the plate being spaced outwardly from the face of the plate, and a hood for covering the screen roller having terminal flanges slidably engaged back of the spaced ends of said plate.

2. A window fixture comprising a plate including a body having portions of its ends extended angularly from the body in a common direction and in the same plane therewith, other portions of the ends of the body extending in parallel spaced relation with a face of the body ends, a plate secured to the extremity of each angularly extending end of the plate and each having two opposite parallel edges extended inwardly toward each other to receive a roller bracket slidably therebeneath, one of said inwardly extended edges being notched for interchangeable reception of a locking means of said roller bracket.

In testimony whereof, I affix my signature.

JOHN B. PETRO.