No. 754,799. PATENTED MAR. 15, 1904.

D. D. PINKHAM.

SCREEN.

APPLICATION FILED JAN. 16, 1903.

NO MODEL.

Fig. 1.

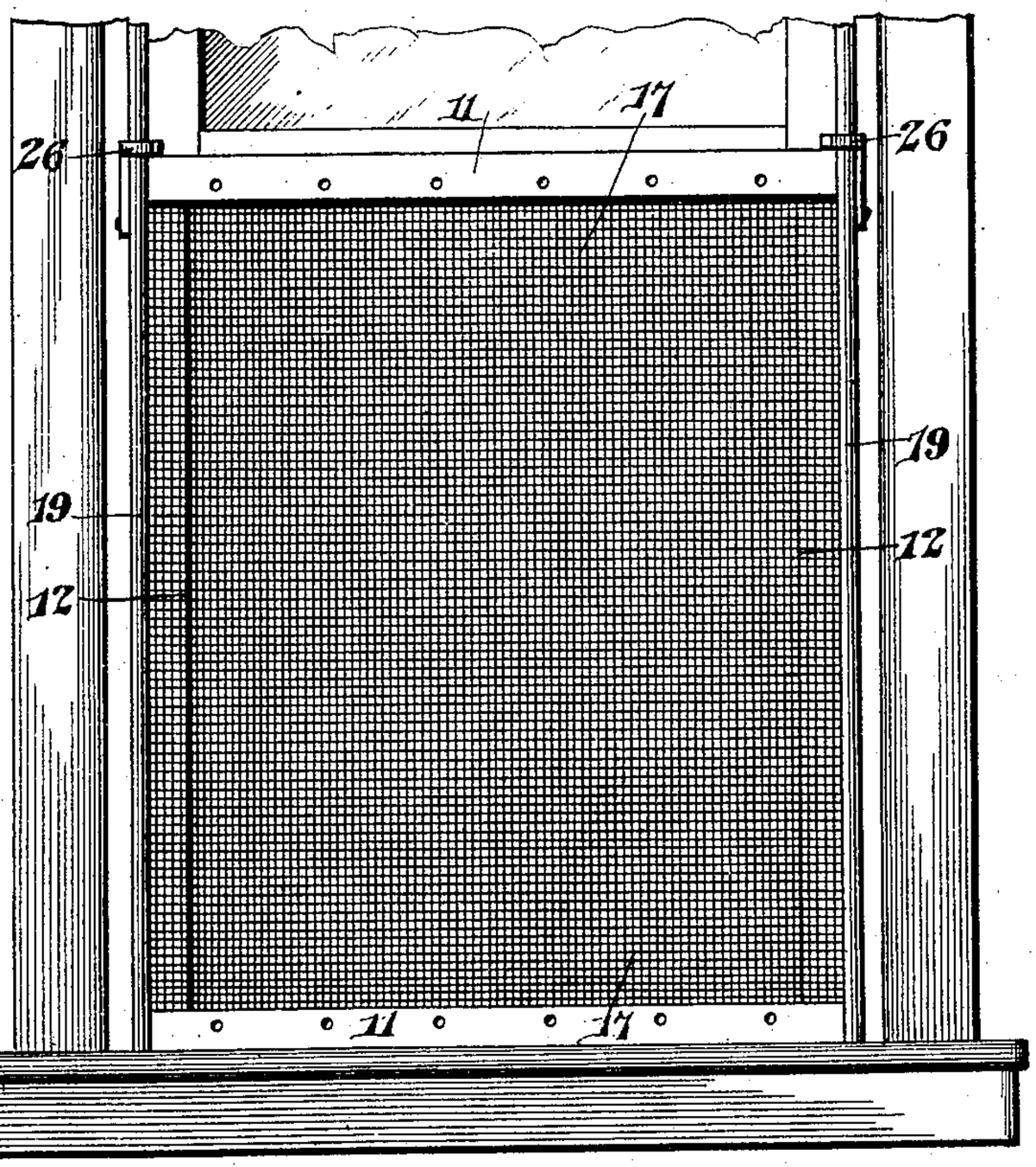


Fig. 2.

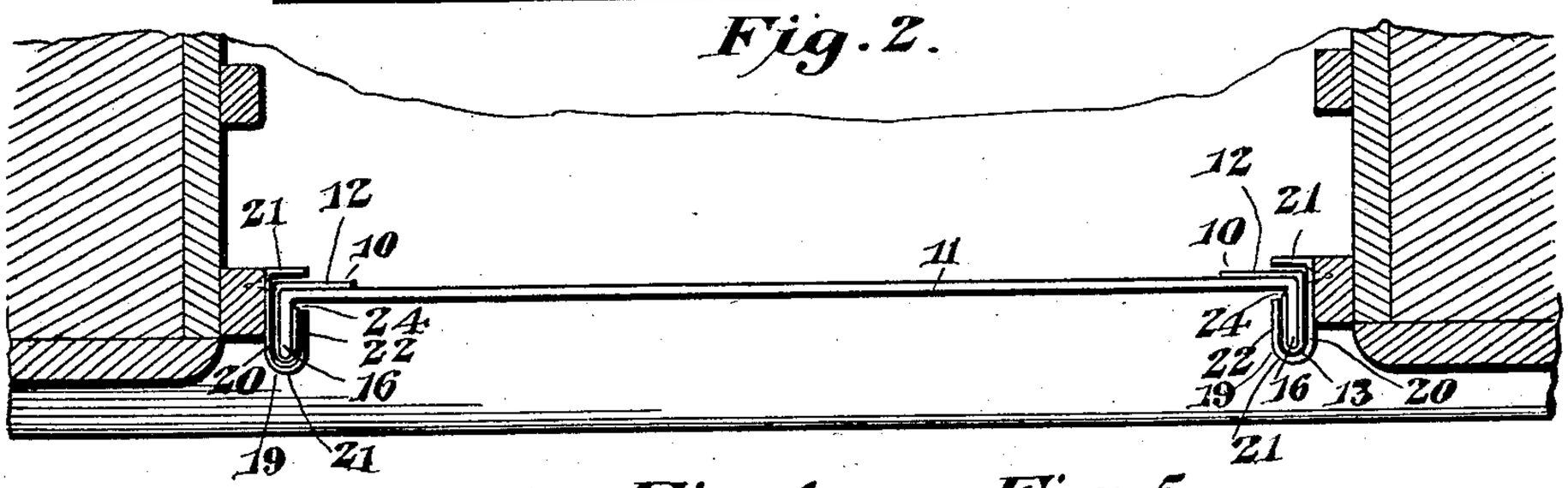


Fig. 3.

Fig. 4.

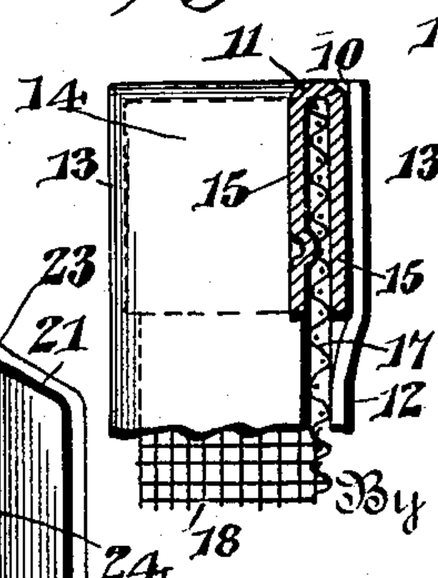


Fig. 5.

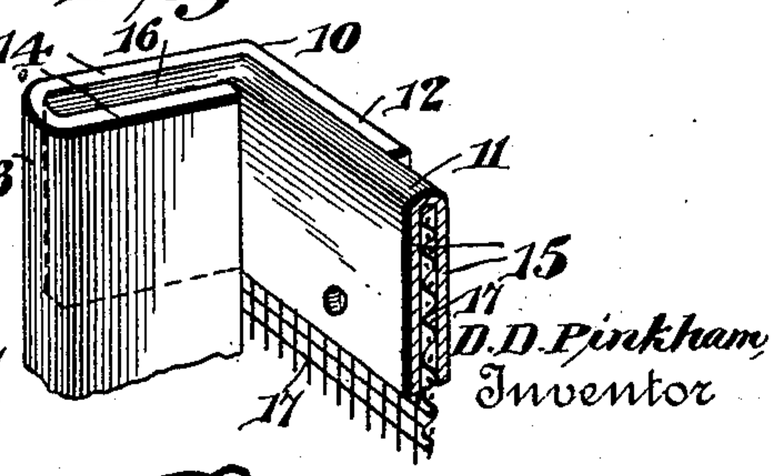
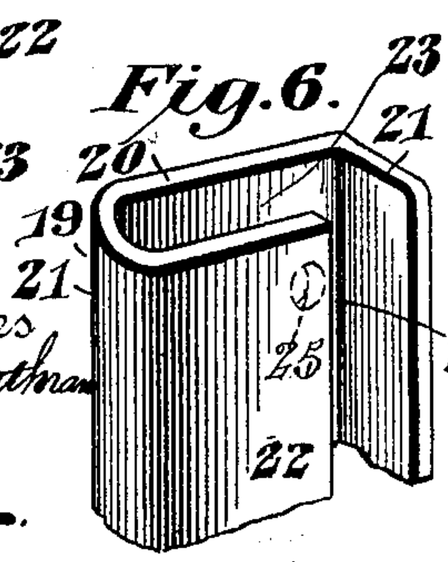


Fig. 6.



Witnesses
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No. 754,799. Patented March 15, 1904.

UNITED STATES PATENT OFFICE.

DELMAR D. PINKHAM, OF LONGVIEW, TEXAS.

SCREEN.

SPECIFICATION forming part of Letters Patent No. 754,799, dated March 15, 1904.

Application filed January 16, 1903. Serial No. 139,322. (No model.)

To all whom it may concern:

Be it known that I, DELMAR D. PINKHAM, a citizen of the United States, residing at Longview, in the county of Gregg and State of Texas, have invented a new and useful Screen, of which the following is a specification.

The present invention relates more particularly to that class of window-screens in which the frames are constructed of metal.

One of the objects of this invention is to provide a screen having a frame that is extremely light in weight, though strong, rigidly constructed, and constituting efficient clamping means for the netting.

A feature of this invention also resides in the novel guides employed in connection with the screen, said guides being interlocked with the frame in such manner as to assist in preventing the screen bending or buckling, while insuring an easy movement during the raising and lowering thereof.

The preferred form of construction is illustrated in the accompanying drawings, wherein—

Figure 1 is a view in elevation of the screen, showing the same in place upon a window-frame. Fig. 2 is a horizontal sectional view through the frame above the top of the screen. Fig. 3 is a detail horizontal sectional view, on an enlarged scale, through one side of the frame. Fig. 4 is a detail vertical section through the upper end of the screen. Fig. 5 is a detail perspective view of one corner of the screen, and Fig. 6 is a similar view of one of the guide-strips.

Similar reference-numerals indicate corresponding parts in all the figures of the drawings.

In the embodiment shown a metallic frame is employed, comprising spaced uprights 10, connected at their upper and lower ends by transverse bars 11. Each of the upright bars 10 is in the form of an angle-bar, the flange 12 of which is a single strip, while the flange 13 is doubled upon itself to form clamping-leaves 14, that are disposed at right angles to the flange 12. The transverse bars 11 each comprise a metal strip doubled upon itself to form clamping-leaves 15. These bars rest flat against the inner faces of the flanges 12 and are provided with offset ends 16, which fit between and are clamped by the leaves 14 of the uprights. A sheet 17 of wire-netting extends across the space within the frame, the upper and lower edges of this sheet being clamped between the leaves 15 of the transverse bars, the side portions of the netting resting against the flanges 12 of the uprights, while the side edges are offset, as shown at 18, and are clamped between the leaves 14 of said uprights.

For the purpose of slidably mounting this above-described screen upon a window-frame guide-strips 19 are employed. Each of these strips consists of a rear wall 20 and outstanding spaced side walls 21, one of said side walls carrying an inwardly-extending flange 22, that overhangs and is spaced from the rear wall 20 and terminates short of the opposite side wall 21. As a result an inclosed guideway 23 is provided within the strip and a longitudinally-disposed slot 24 leads to this guideway, said slot being of less width than the guideway. The strips are secured to the opposite sides of the frame by suitable fastening devices passed through openings 25 formed in the rear walls 20 in line with the slots 24.

As clearly shown in the drawings, the offset flanges 13 of the uprights are slidably mounted in the guideways, the screen and the flanges 12 passing through the slots 24. The screen is thus freely slidable, but can be elevated or lowered, as desired, being held by suitable latches 26, (illustrated in Fig. 1.) As the screen and guides may be constructed of sheet metal, it will be evident that they may be manufactured at comparatively small cost. The frame, though very light, is extremely rigid, this rigidity being due to a great extent to the angular shapes of the uprights and the interlocking therewith of the ends of the transverse bars. The angular disposition of the leaves of the uprights with relation to the netting insures a secure clamping engagement for said netting. In connection with this screen the guides therefor are an important feature, for while they permit the vertical movement of the screen and are not readily bent out of shape they also assist in preventing the buckling of the frame or the netting. This will be readily understood when it is con-

sidered that as soon as the screen is bent either inwardly or outwardly the outstanding flanges 13 of the uprights are brought into engagement with the overhanging flanges 22 on the rear walls 20 of said guides, and thus limit the bending movement.

From the foregoing it is thought that the construction, operation, and many advantages of the herein-described invention will be apparent to those skilled in the art without further description, and it will be understood that various changes in the size, shape, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

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

1. The combination with a guide-strip having an outstanding hook portion, of a screen comprising wire-netting and a side bar comprising flanges, one of which is doubled over the edge of the wire-netting, said doubled flange being interlocked with the hook portion of the guide-strip, the other flange being independent thereof.

2. The combination with a guide-strip comprising a rear wall and outstanding side walls, one of which is provided with a flange that overhangs the rear wall and terminates short of the other side wall, of a screen having an angularly-disposed frame-piece that is slidably engaged in the guide-strip between the rear wall and the overhanging flange and between the side walls.

3. The combination with a screen including a frame-piece having spaced flanges, one of which is doubed upon itself to form clamping-leaves, and netting having an edge arranged between the clamping-leaves, of a guide having a hook portion in which the doubled flange is slidably interlocked, the other flange being outside and independent of said hook portion.

4. The combination with a guide, of a screen including a netting-sheet having an edge bent at an angle to the main portion, and a frame-piece comprising an angle-bar, one flange of which rests against the main sheet, the other flange being arranged in angular relation thereto and doubled upon itself to form clamping-leaves that embrace the angular edge of the netting, said doubled flange slidably engaging the guide.

5. In a screen, a frame comprising spaced uprights, each having a flange which is doubled to form clamping-leaves, and spaced transverse bars having offset ends that are clamped between the leaves of the uprights.

6. In a screen, a frame comprising spaced uprights, each upright being formed of an angle-bar, one flange of which is doubled upon itself to form clamping-leaves, and transverse bars extending across the space between the uprights and resting against the flanges thereof, said transverse bars having offset ends that are clamped between the leaves of the uprights.

7. In a screen, a frame comprising spaced uprights, each upright being formed of an angle-bar, one flange of which is doubled upon itself to form clamping-leaves, and transverse bars extending across the space between the uprights and resting against the flanges thereof, said transverse bars being doubled and having offset ends that are clamped between the leaves of the uprights, and netting extending across the space within the frame, the edges of said netting being clamped between the leaves of the upright and the doubled portions of the transverse bars.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

DELMAR D. PINKHAM.

Witnesses:

RAS YOUNG,

C. D. KENNARD.