

No. 821,777.

PATENTED MAY 29, 1906.

M. BENJAMIN.
SCREEN.

APPLICATION FILED OCT. 21, 1905.

Fig. 1.

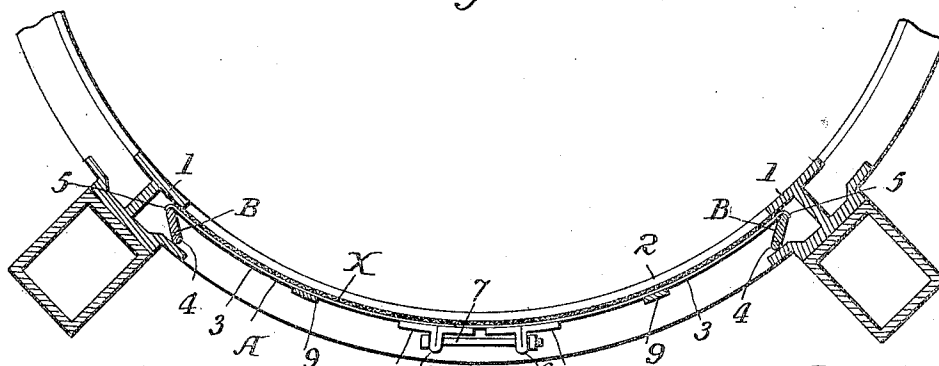
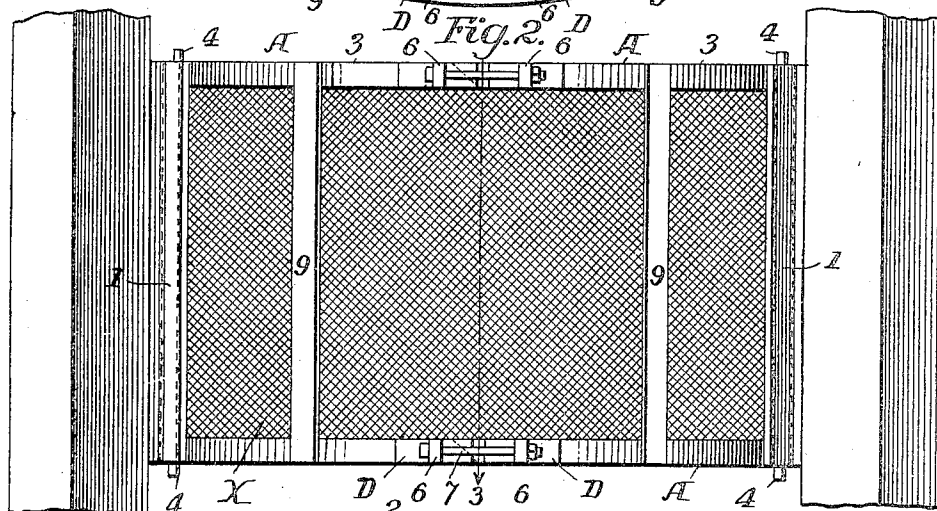
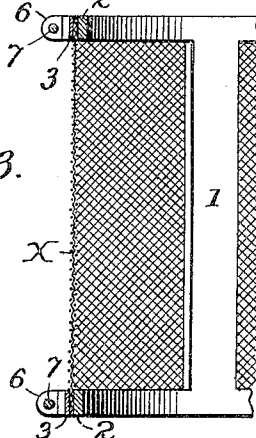


Fig. 3.



Witnesses
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MORRIS BENJAMIN, OF ATLANTA, GEORGIA.

SCREEN.

No. 821,777.

Specification of Letters Patent.

Patented May 29, 1906.

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To all whom it may concern:

Be it known that I, MORRIS BENJAMIN, a citizen of the United States, residing at Atlanta, in the county of Fulton and State of Georgia, have invented certain new and useful Improvements in Screens, of which the following is a specification.

My invention relates to screen-holders; and it consists in means whereby a screen may be readily applied and securely clamped at the edges to and quickly removed from the frame of any structure in which a screen may be used.

In the drawings, Figure 1 is a section of part of a grinding-mill, illustrating my improved screen-holder. Fig. 2 is an elevation. Fig. 3 is a vertical section on the line 3 3, Fig. 2.

The structure to which the screen X is to be applied has a frame with an opening with side bearings 1 1 and upper and lower bearings 2 2, the latter being shown as curved, although they may be straight in some cases. It is desired to clamp the edges of the screen against the faces of these bearings, and for this purpose I make use of bands A A, which bear on the outer face of the screen at top and bottom and press these edges of the screen against the bearings 2 2, and I also use side bars B B, which bear on and press the side edges of the screen against the bearings 1 1.

To secure a uniform and simultaneous application of pressure to all the edges, I make each band A in two sections 3 3, preferably flexible, and so connect them at the outer ends with the bars B B that as the two sections are drawn longitudinally together the bars will be moved to press upon the screen. Thus each bar B is provided at its ends with trunnions 4 4 near the outer edge, so that the inner edge may swing to and from the screen, and the outer end of each band-section 3 is bent to form a hook 5, which passes into a notch in the bar, so that the inner face of the band and the inner edge of the bar are flush. As the band-sections 3 are drawn toward each other the hooks 5 5 swing the bars B B, and thus as pressure is applied by the bands to force the upper and lower edges of the screen against the bearings 2 2 the bands will also shift the bars to press them against the side edges of the screen and force them against the bearings 1 1.

Any suitable tension means may be employed to draw the band-sections 3 3 of each band toward each other. As shown, the ten-

sion device consists of a bracket D on each section, having an ear 6, through which passes a screw-bolt 7, by tightening which any desired tension may be applied to the band to contract it against the screen and swing in the bars B B. It will be evident that these bars may be differently constructed and arranged to apply pressure as they are moved by the bands, and, if desired, the upper and lower bands may be connected by strips 9.

Without limiting myself to the precise construction shown and described, I claim—

1. The combination with a frame having an opening with upper, lower and side bearings, of a screen with its edges seated on said bearings, movable bars B, B, for bearing on the side edges of the screen, and sectional bands A connected to shift the bars and bearing on the upper and lower edges of the screen, and means for applying tension to said bands, substantially as set forth.

2. The combination with a frame having an opening with upper, lower and side bearings, of a screen with its edges seated on said bearings, movable bars B, B, for bearing on the side edges of the screen, sectional flexible bands A connected to shift the bars and bearing on the upper and lower edges of the screen, and means for applying tension to said bands, substantially as set forth.

3. The combination with a frame having an opening and edge bearings, of two pivoted bars, two sectional bands engaging said bars at the outer ends, and means for drawing the sections of each band longitudinally toward each other, and for swinging the bars, substantially as set forth.

4. The combination of a frame having side bearings and intermediate upper and lower curved bearings, movable bars B, B, sectional curved bands connected to shift the bars, and means for drawing together the sections of each bar, substantially as set forth.

5. The combination with the frame having side bearings and upper and lower curved bearings, of bars pivoted to swing opposite the side bearings, and sectional bands opposite the curved bearings connected at the ends to swing the bars, and provided with means for drawing the sections toward each other, substantially as set forth.

6. The combination with the frame having side bearings and upper and lower curved bearings, of bars pivoted to swing opposite the side bearings, and sectional flexible bands

opposite the curved bearings connected at the ends to swing the bars, and provided with means for drawing the sections toward each other, substantially as set forth.

5 7. The combination with the frame having side bearings and upper and lower curved bearings, of bars pivoted to swing opposite the side bearings, sectional bands opposite the curved bearings having hooked ends fit-

ting notches of the bars, and means for drawing the sections of each bar toward each other, substantially as set forth.

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

MORRIS BENJAMIN.

Witnesses:

JAMES F. SAUNDERS,
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