

No. 773,423.

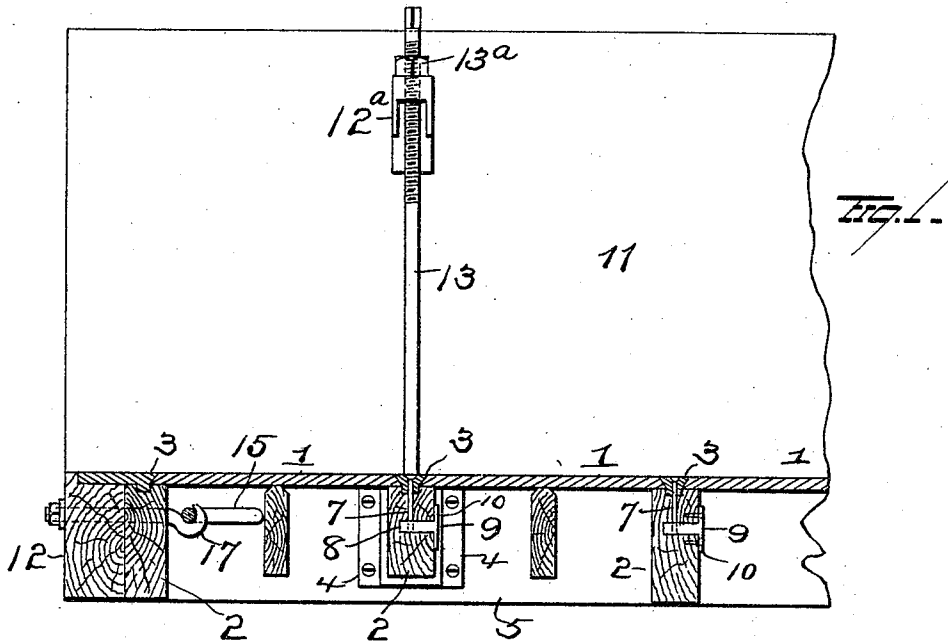
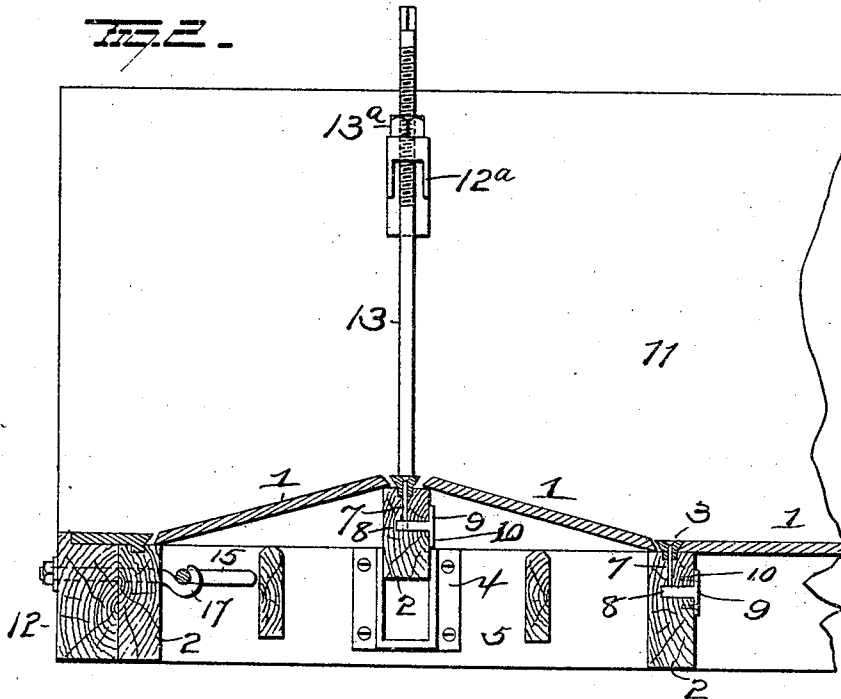
PATENTED OCT. 25, 1904.

T. L. REYNOLDS.
SCREEN PLATE FASTENER.

APPLICATION FILED OCT. 5, 1903.

NO MODEL.

2 SHEETS—SHEET 1.



WITNESSES
E. Kottburgham
G. F. Downing.

INVENTOR
T. L. Reynolds
By *H. A. Seymour*
Attorney

No. 773,423.

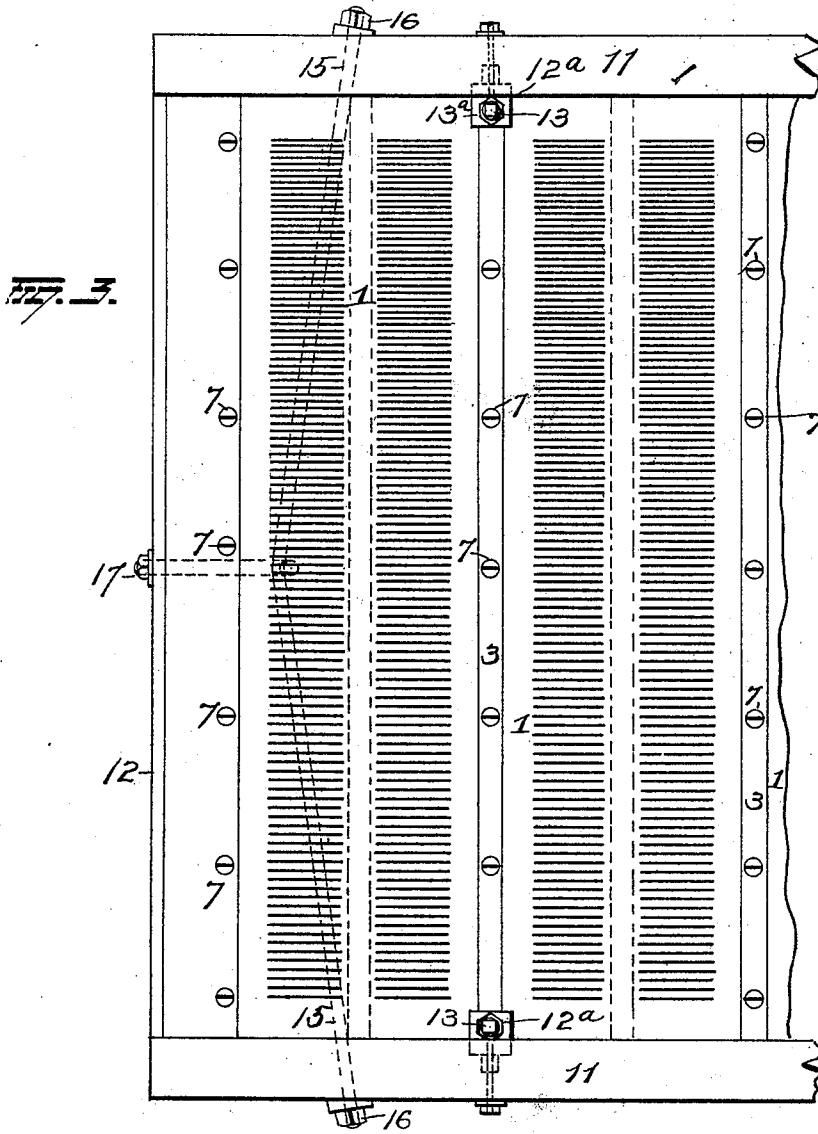
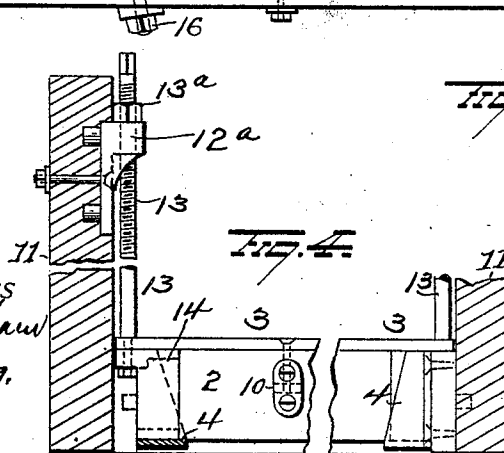
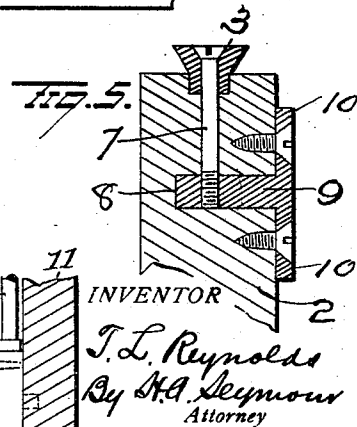
PATENTED OCT. 25, 1904.

T. L. REYNOLDS.
SCREEN PLATE FASTENER.

APPLICATION FILED OCT. 5, 1903.

NO MODEL.

2 SHEETS—SHEET 2.



WITNESSES
E. Nottingham
G. F. Downing

INVENTOR
T. L. Reynolds
By *H. A. Seymour*
Attorney

UNITED STATES PATENT OFFICE.

THOMAS L. REYNOLDS, OF WATERVILLE, MAINE, ASSIGNOR OF ONE-THIRD TO C. E. BOSTON, OF WATERVILLE, MAINE.

SCREEN-PLATE FASTENER.

SPECIFICATION forming part of Letters Patent No. 773,423, dated October 25, 1904.

Application filed October 5, 1903. Serial No. 175,816. (No model.)

To all whom it may concern:

Be it known that I, THOMAS L. REYNOLDS, a resident of Waterville, in the county of Kennebec and State of Maine, have invented certain new and useful Improvements in Screen-Plate Fasteners; 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 an improved screen-plate fastener for pulp-straining apparatus, the object of the invention being to provide a device of this character which will securely hold the screen-plates in place and permit of their ready removal when desired.

With this object in view the invention consists in certain novel features of construction and combinations and arrangements of parts, as will be more fully hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in section illustrating my improvements in position for operation. Fig. 2 is a similar view showing the position of parts when the screen-plates can be removed. Fig. 3 is a plan view, and Figs. 4 and 5 are sectional views, illustrating details of construction somewhat enlarged.

1 represents a series of screen-plates supported on timbers 2 and secured thereon by my improved locking-bars 3, as will now be explained. The side edges of the screen-plates are beveled to receive the beveled edge of the locking-bars 3, the heads or upper portions of which are made of the same thickness as the screen-plates, so as to lie flush therewith. The body portion of the bars 3 are secured in grooves in timbers 2, and each alternate timber is mounted to move vertically in U-shaped guide-brackets 4, secured to the inner face of a framework 5, the alternate timbers being rigidly secured in the frame.

The bars 3 are secured to timbers 2 by means of screws 7, which latter are headed to fit sockets in the bars and project through holes in the bars and timbers and are screwed into nuts 8, made integral with an arm 9, projecting at right angles from the center of a

plate 10 and integral therewith, said plate being secured by screws or otherwise to the side face of the timbers and the arms 9 projecting into the same.

The frame 5 is provided with a casing comprising side plates 11 and end plates 12, and on each side plate brackets 12^a are secured and provide bearings for vertical rods 13, mounted to turn, and are connected to links 14, which latter receive the ends of movable timbers 2. The rods are made angular on their upper ends to receive a wrench to turn them and are screw-threaded to receive nuts 13^a on brackets 12^a, so that when the nuts are held and the rods 13 turned the timbers will be raised or lowered, as the case may be.

When the rods 13 are turned in one direction, the movable timbers and bars 3 will be raised sufficiently to permit the screen-plates 1 to be removed, as clearly shown in Fig. 2, and when the rods are turned in the reverse direction the bars 3 will be moved down to clamp the screen-plates in place.

The side and end plates of the frame are secured together by coupling-rods 15, passed at their ends through the side plates and secured by nuts 16 and connected between their ends with hooks 17, projected through the end plates.

In operation when it is desired to remove one or more screen-plates rods 13 are turned in nuts 13^a, elevating clamping-bars 3 and timbers 2, when the screen-plates can be readily removed. After the screen-plates are replaced the operation above described is reversed to firmly clamp them in position.

A great many changes might be made in the general form and arrangement of the several parts described without departing from my invention, and hence I do not restrict myself to the precise details set forth, but consider myself at liberty to make such slight changes and alterations as fairly fall within the spirit and scope of my invention.

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

1. A screen-plate fastener, comprising a locking-bar beveled on one edge, a screen-plate

to fit said beveled edge, and means having a swiveled connection with said locking-bar for raising and lowering the same and for holding said bar in engagement with the screen-plate.

5 2. A screen-plate fastener, comprising a locking-bar beveled on one edge, a screen-plate to fit said beveled edge; and means connected with the locking-bar for raising and lowering the same and simultaneously unlocking or
10 locking it.

3. A screen-plate fastener, comprising a movable and a stationary locking-bar having beveled adjacent edges, a screen-plate to fit the beveled edges of said locking-bars and
15 means for raising said movable locking-bar to unlock the screen-plate therefrom and from the stationary locking-bar.

4. A screen-plate fastener, comprising a vertically-movable and a stationary locking-
20 bar having beveled adjacent edges, a screen-plate to fit the beveled edges of said locking-bars, a rod, a link secured to the movable bar and attached to said rod to raise the movable bar when the rod is moved.

25 5. In a screen-plate fastener, the combination with a frame, timbers secured in said

frame and spaced apart, movable timbers located between the rigid timbers, locking-bars on all of said timbers, screen-plates to rest on the timbers and locked thereon by said
30 bars, and means for moving said movable timbers.

6. The combination with framework, of two stationary locking-bars, a vertically-movable locking-bar between the stationary locking-
35 bars, said locking-bars coöperating to secure two screen-plates in position, and means for raising and lowering the intermediate movable locking-bar.

7. In a screen-plate fastener, the combina-
40 tion with a timber, a locking-bar located thereon, a plate secured to a side face of the timber and having an arm projecting into said timber and a bolt passing downwardly through the locking-bar and entering said arm.
45

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

THOMAS L. REYNOLDS

Witnesses:

C. W. HUSSEY,

C. B. DURANT.