

No. 657,186.

Patented Sept. 4, 1900.

H. E. WAMBOLD.
VAT FOR SCREENING PAPER PULP.

(Application filed Jan. 16, 1900.)

(No Model.)

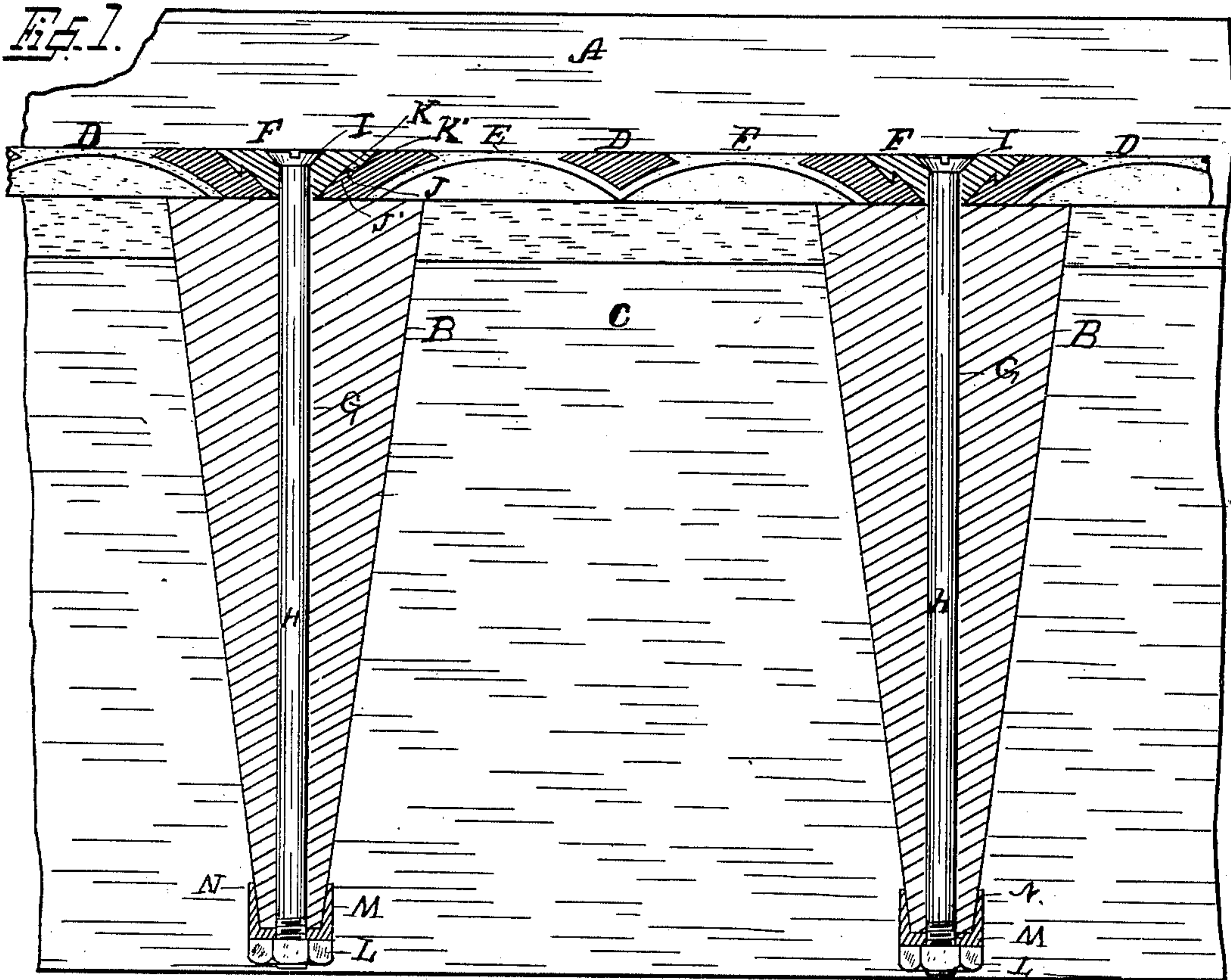
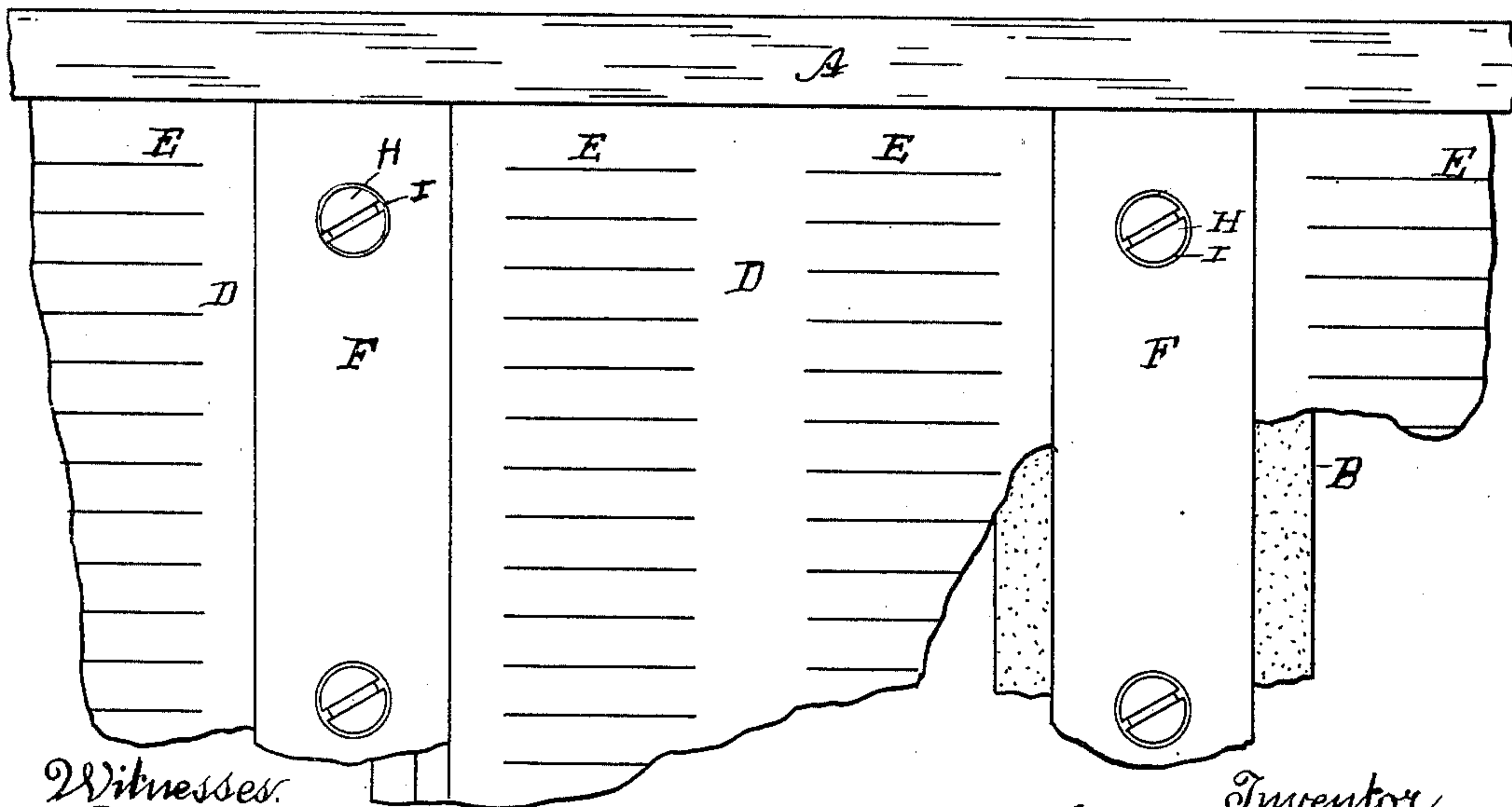


Fig. 2.



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UNITED STATES PATENT OFFICE.

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VAT FOR SCREENING PAPER-PULP.

SPECIFICATION forming part of Letters Patent No. 657,186, dated September 4, 1900.

Application filed January 16, 1900. Serial No. 1,594. (No model.)

To all whom it may concern:

Be it known that I, HARRY E. WAMBOLD, a citizen of the United States, residing at Appleton, in the county of Outagamie and State of Wisconsin, have invented new and useful Improvements in Vats for Screening Paper-Pulp, of which the following is a specification.

My invention relates to improvements in paper-pulp and filter vats, and it pertains more especially to the device for locking and holding the screen-plates which form the floor of the vat to their supporting bed-pieces.

My invention is explained by reference to the accompanying drawings, in which—

Figure 1 represents a vertical section of a portion of the vat, drawn at right angles to the screen-plates. Fig. 2 represents a plan of a portion of the vat with a part of the screen-plates broken away to show the supporting bed-pieces.

Like parts are referred to by the same reference-letters in both views.

The walls A, screen-supporting bed-pieces B, and inclosing frame C of the vat are all of the ordinary construction.

D represents a number of screen-plates which form the floor of the vat. The screen-plates D are preferably formed of metal and are provided with a series of fine slots E, through which the finer part of the pulp placed in the vat is screened out. Heretofore it has been common to form the screen-plates with plain vertical edges which are brought in direct contact with each other and the walls of the vat, in which case it becomes necessary to provide each edge of each screen-plate with a separate series of holes for the plate-retaining screws, and as such screws extend into the supporting bed-pieces it becomes necessary to form the bed-pieces of sufficient thickness to permit of two series of retaining-screw holes, and owing to the fact that the screen-plates are frequently changed for others in which screw-holes are not located in the same relative position to each other it often becomes necessary to make new holes for such screws, whereby the bed-pieces soon become cut away and weakened, while the amount of labor and trouble of changing the screen-plates and forming new holes for the retaining-screws is necessarily

large. By my improvement the holes in the screen-plates are entirely avoided and a single series of holes G only is required in each supporting bed-piece. This desired object is accomplished by interposing between each of the several screen-plates and between the sides of the screen-plates and edges of the vat a separate fastening or locking plate F, through which the retaining-bolts H are inserted and by which said retaining-bolts are drawn down firmly upon the bevel edges of the screen-plate B. The locking-plates F are beveled on their lower sides, while the opposing edges of the screen-plates D are beveled on their upper sides for the reception of the locking-plates, the bevel of the respective plates being formed on the same angle, so that such parts fit nicely together and form a smooth even surface, while the holes I, formed in the several locking-plates for the reception of the fastening-bolts, are countersunk, so that the upper surface of the heads of such bolts will when in place be flush with the surface of the screen-plates, as shown in Fig. 1. To prevent the screen-plates from being separated or forced away from each other by said locking-plates as the same are drawn down by their retaining-bolts, an interlocking joint is formed between such parts, consisting of a V or U shaped groove J and flange J', formed in the beveled surface of the screen-plates, and a V or U shaped flange K and groove K', conforming in shape to said groove and flange formed on the lower side of said locking-plates, which said flanges and grooves on one plate engage in the flanges and grooves on the other plate and lock such parts securely together, whereby it is obvious that the act of drawing down said plates has no tendency to force back the screen-plates, as would be the case were such V or U shaped flanges and grooves dispensed with.

To prevent the lower edges of the bed-piece B from being chafed or broken by contact with the nuts L as they are turned down on the bolts, I preferably employ a cap or washer M, which cap is provided with angular flanges N, which flanges engage the respective surfaces of said bed-pieces, and thus distribute the pressure of the nuts over a larger area of

surface and prevent the injurious action of the nut than would otherwise occur if turned down on said bed-pieces direct.

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

1. In a vat for filtering and screening paper-pulp, the combination of a series of screen-plates having beveled edges; a series of locking-plates having inversely-beveled edges, the opposing surfaces of said screen and locking-plates having interlocking flanges and grooves, the edges of said screen and locking-plates interlocking together; and means for securing said locking-plates in place upon the beveled edges of the screen-plates, substantially as and for the purpose specified.

2. In a vat for filtering and screening paper-

pulp, the combination, of a series of screen-plates having beveled interlocking edges; a series of locking-plates provided with bolt-holes for the reception of retaining-bolts, and having beveled interlocking edges; a series of bed-pieces longitudinally arranged beneath said locking-plates; and a series of bolts passing through said locking-plates and secured at their lower ends to said longitudinal bed-pieces, all substantially as and for the purpose specified.

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

HARRY E. WAMBOLD.

Witnesses:

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