(No Model.)

E. RILEY.

PAPER PULP SCREEN OR DRESSER.

No. 342,041. Patented May 18, 1886.

Fig. 1.

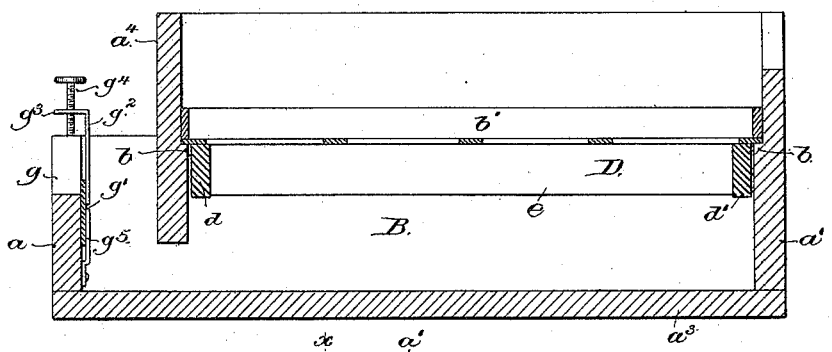


Fig. 2.

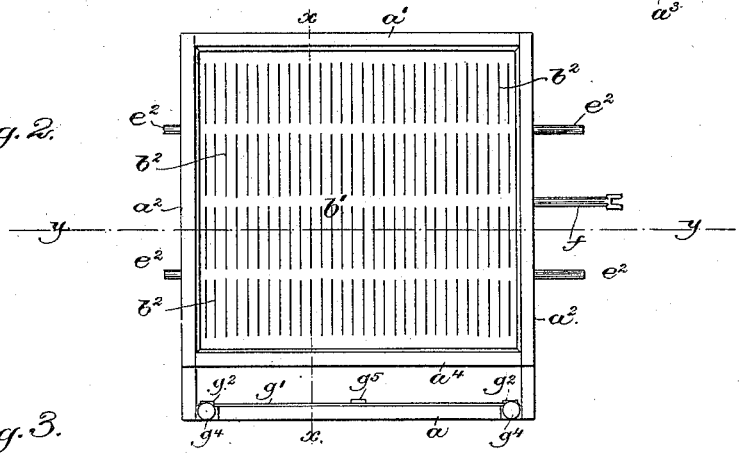
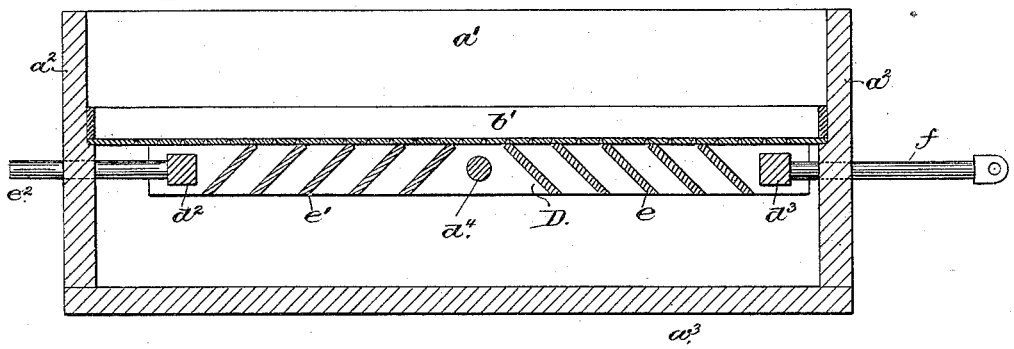


Fig. 3.



Witnesses.
John F. C. Brinkerhoff
Thea L. Emery.

Inventor:
Edwin Riley.
by Crosby & Gregory Attys

UNITED STATES PATENT OFFICE.

EDWIN RILEY, OF FRANKLIN, NEW HAMPSHIRE, ASSIGNOR OF ONE-HALF TO WARREN F. DANIELL, OF SAME PLACE, AND WILLIAM A. RUSSELL, OF LAWRENCE, MASSACHUSETTS.

PAPER-PULP SCREEN OR DRESSER.

SPECIFICATION forming part of Letters Patent No. 342,041, dated May 18, 1886.

Application filed February 17, 1886. Serial No. 192,171. (No model.)

To all whom it may concern:

Be it known that I, EDWIN RILEY, of Franklin, county of Merrimac, and State of New Hampshire, have invented an Improvement in Paper-Pulp Screens or Dressers, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention relates to screens or dressers for paper-pulp, and has for its object to provide means by which the slots or interstices of the screen or dresser may be kept in proper condition to facilitate the passage through them of the paper-pulp in the required state of division.

My invention consists, essentially, of a vat and a screen supported in said vat, combined with a clearer located below said screen, and provided with bars, slats, or wings, to facilitate the passage of the pulp through the screen, in a manner as will be hereinafter fully set forth.

My invention also consists in details of construction, to be hereinafter pointed out in the claims at the end of this specification.

Figure 1 in section shows a sufficient portion of a screen or dresser to enable my invention to be understood, the section being taken on line $x\ x$, Fig. 2; Fig. 2, a plan view of Fig. 1, but on a reduced scale; and Fig. 3, a section of Fig. 2 on line $y\ y$, the scale being the same as in Fig. 1.

The vat B, composed of wood or other suitable material, and having its end a lower than its end a' and sides a^2, is divided by a partition, a^4, which is extended nearly to the bottom of the said vat. At the inside of the partition a^4, and at the end a' and sides a^2 of the vat, are suitable shoulders, b, for the support of a screen-plate, b', having usual slits, b^2. Below the screen-plate b', and above the vat B, I have placed a clearing device or clearer, D, composed, essentially, of a frame provided with bars, slats, or wings $e\ e'$, herein shown as inclined in opposite directions, the said clearer being of less width than the said vat at its inner side, the said clearer having journals e^2, which, extended through the frame-work of the vat, support the clearer above the bottom of the vat and close to the under side of the screen-plate, the said clearer having a movement of reciprocation laterally in the said vat below the screen-plate by means of a suitable crank or other device attached to the rod f.

As the clearer is reciprocated below the screen, the bars, slats, or wings cause the air in the vat to be at times forced out through the slits, and at other times drive the air and pulp from above the screen into the vat, the said air-currents acting to keep the slits in the screen-plate from clogging or becoming stopped up, the upper sides of the said bars, slats, or wings just below the screen-plate, by acting upon any pulp hanging below the screen, also aiding in keeping the slits of the plate clear.

The pulp, after passing through the screen b', is carried by water through the port or mouth g. The port or mouth g is provided with a gate, g', attached to rods g^2, one at each end of said gate, and having an arm, g^3, provided with a threaded opening, through which is passed a threaded spindle, g^4, the rotation of the spindle in one direction raising the gate g', which travels in a guideway formed by the plate or rod g^5 and the side a, thus decreasing the outflow of water and pulp, the rotation of said spindle in the opposite direction moving the gate down to open the mouth or port g, to permit the outflow of a larger quantity of water and pulp.

I do not desire to limit myself to the mode of arranging the bars, slats, or wings $e\ e'$ as herein shown, for the same may be set vertically, or they may be inclined all in the same direction; but I prefer to set the bars, slats, or wings $e\ e'$ as shown, as I am thereby enabled to obtain the best results.

The clearer in its reciprocations actually prevents the accumulation of any "pulp-strings" at the lower side of the screen-plate.

I claim—

1. In a paper-pulp screen or dresser, a vat and a screen supported therein, combined with the reciprocating clearer located below said screen, and provided with bars, slats, or wings, to operate substantially as described.

2. In a paper-pulp screen or dresser, a vat and a screen supported therein, combined with the reciprocating clearer located below the said screen, and provided with bars, slats, or wings arranged at an angle with relation to each other, substantially as described.

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

EDWIN RILEY.

Witnesses:
FRANK H. DANIELL,
WARREN F. DANIELL.