(No Model.) 2 Sheets—Sheet 1.

S. M. HOTCHKISS & B. A. MASON.

PRESS FOR DRYING BARREL HEADS OF PULP, &c.

No. 318,741. Patented May 26, 1885.

Fig. 1.

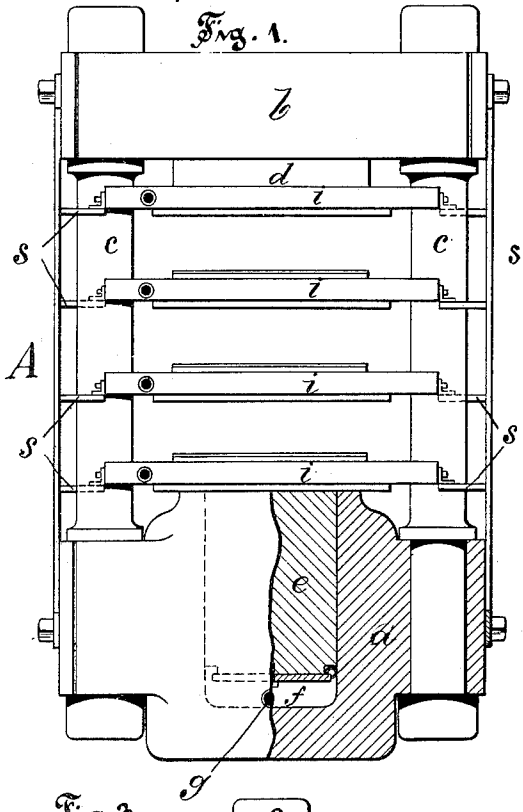


Fig. 2.

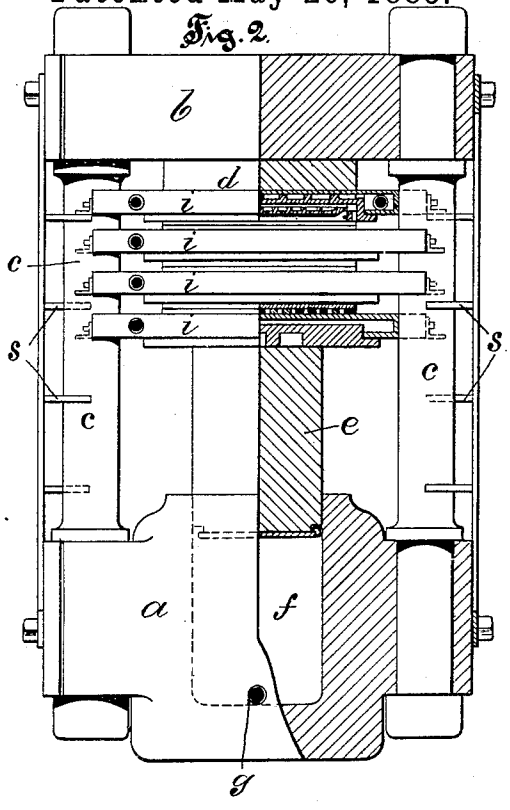


Fig. 3

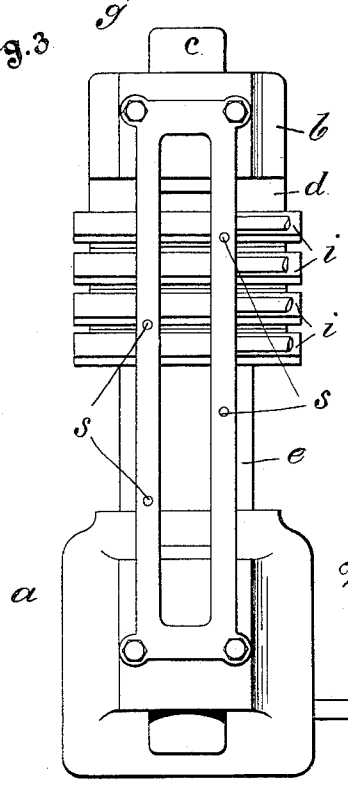
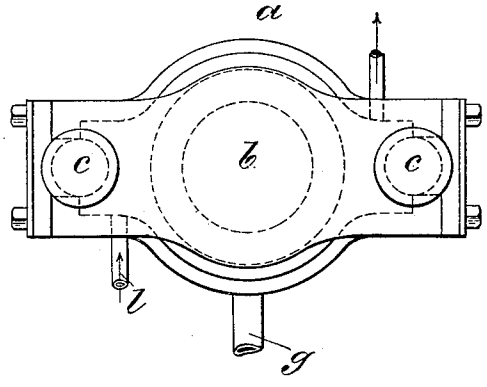


Fig. 4.



Witnesses

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(No Model.) 2 Sheets—Sheet 2.

S. M. HOTCHKISS & B. A. MASON.

PRESS FOR DRYING BARREL HEADS OF PULP, &c.

No. 318,741. Patented May 26, 1885.

Fig. 5.

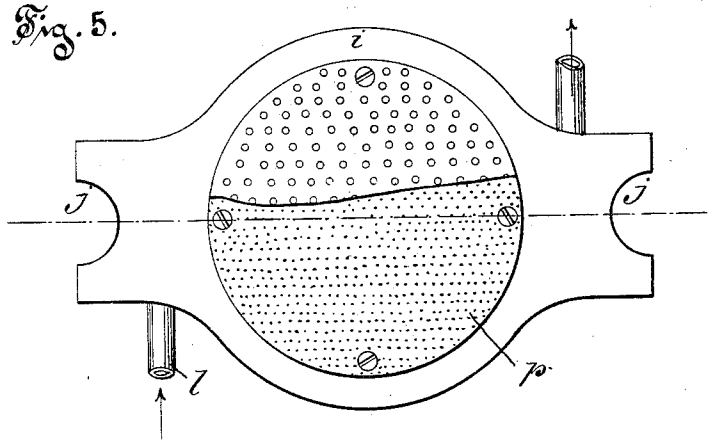


Fig. 6

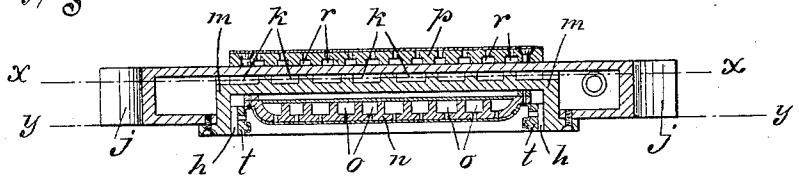


Fig. 7

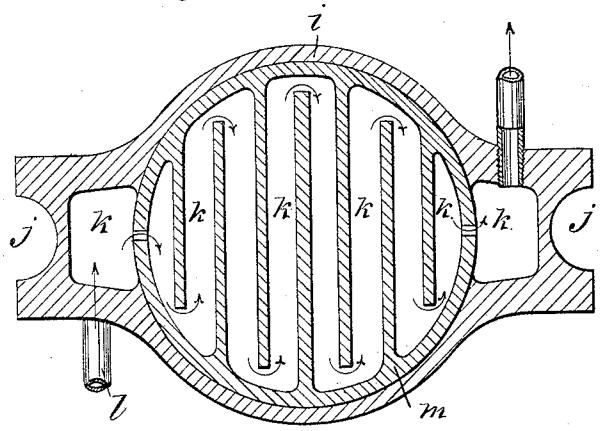
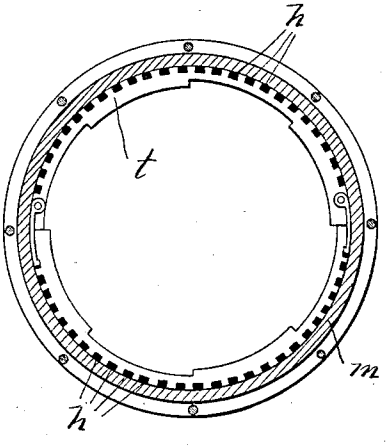


Fig. 8



Witnesses.

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UNITED STATES PATENT OFFICE.

SAMUEL M. HOTCHKISS AND BENJAMIN A. MASON, OF HARTFORD, CONN.

PRESS FOR DRYING BARREL-HEADS OF PULP, &c.

SPECIFICATION forming part of Letters Patent No. 318,741, dated May 26, 1885.

Application filed January 24, 1885. (No model.)

To all whom it may concern:

Be it known that we, SAMUEL M. HOTCHKISS and BENJAMIN A. MASON, both of Hartford, in the county of Hartford and State of Connecticut, have invented a certain new and useful Improvement Pertaining to Presses for Drying Barrel-Heads of Pulp, and the like, of which the following is a description, reference being had to the accompanying drawings, where—

Figure 1 is an elevation view of the machine made use of as it appears when supplied with barrel-heads ready to be pressed—a front view. Fig. 2 is a sectional elevation of the machine shown in Fig. 1. The piston has risen from the position shown in Fig. 1 and put the barrel-heads under pressure. Fig. 3 is an elevation view of the machine shown in Fig. 1 from the side A, with the heads under pressure, as in Fig. 2. Fig. 4 is a plan view of the machine shown in Fig. 1. Fig. 5 is a top or plan view of one of the drying-cases for containing a barrel-head while it is dried by heat under pressure, as herein described—scale enlarged. Fig. 6 is a view of the drying-case shown in Fig. 5 in central vertical section. Fig. 7 is a view of the drying-case shown in Fig. 5 in horizontal section on the plane *x x*. Fig. 8 is a view of the drying-case shown in Fig. 5 in horizontal section on the plane *y y*.

This machine is designed for drying barrel-heads by artificial heat applied to both sides of the head (periphery also) while the head is under pressure, the head having been previously formed in another machine.

The frame of this machine is composed of the bottom casting, *a*, the top casting, *b*, and the strong connecting-pillars *c*.

The barrel-head is brought to this machine in the rim-former *t*, and remains in it while the heat and pressure are applied. A number of the drying-cases are arranged one above another, as shown in Fig. 1, with spaces between them, which permit the insertion of barrel-heads within their rim-formers, as shown in Fig. 1.

The letter *d* denotes the fixed platen, against which the drying-cases are pressed; and *e* denotes the piston which does the pressing. It enters the hydraulic cylinder *f*, is forced upward at the proper time by water coming from a hydraulic pump, and entering the cylinder through the duct *g*. The weight of the piston is sufficient to cause the piston to fall and retract as water is withdrawn from the cylinder *f*. Each drying-case is, in substance, a case recessed and rightly shaped to receive a barrel-head (in its rim-former.) It is made hollow or provided with heat-ducts for the circulation of steam or other heating agent, for the purpose of applying heat while the head is under pressure to both sides and the periphery of the head, and provided with means for the outlet of the vapor which escapes from the head as it dries. The rim-former *t* is surfaced on the inside with a finely-perforated mold-face, back of which it is perforated through and through vertically with larger holes letting into numerous vertical grooves, *h*, on the back—an arrangement which permits the escape of vapor from the barrel-head, so far as the rim-former is concerned.

The body or principal part of the drying-case is denoted by the letter *i*. It is furnished with bifurcations *j*, which act as guides in cooperation with the pillars *c*. The drying-cases are chambered by heat-ducts *k*, for the circulation of steam, which enters by orifice *l*, which is connected to the generator by a flexible jointed or telescopic tube.

The letter *m* denotes a dish-shaped piece, fitting into and attached to the piece *i*, the heat-ducts of which, *k*, are readily seen in Fig. 7.

Within and attached to the piece *m* is another piece, *n*, in the nature of a former-plate for the outside of the barrel-head. On the under side it is surfaced with a finely-perforated mold-face, back of which it is perforated vertically through and through the perforations leading to the grooves *o*—an arrangement which permits the escape of vapor from the drying-head so far as the upper and outside surface of the barrel-head is concerned. The under side of the barrel-head rests on the plate *p*, which is surfaced with a finely-perforated mold-face, back of which it is perforated vertically through and through, the perforations leading to the grooves *r*—an arrangement which permits the escape of vapor from the under surface of the barrel-head in drying. This plate *p* is fast to the upper side of the body-piece *i* of the drying-case next in order below.

The letters *s* denote catch-fingers, which respectively catch and hold the respective drying-cases as the piston drops back, the drying-cases being provided with co-operating lugs for that purpose.

The rim-former *t* is made in two sections hinged together, so that it may be opened to free the barrel-head.

The improvement claimed herein is—

1. In combination, the pressing-piston, the fixed platen, the drying-cases, and the rim-formers, substantially as described, and for the purpose set forth.

2. In combination, the pressing-piston, the fixed platen, and the drying-cases chambered by heat-ducts, substantially as described, and for the purpose set forth.

3. In combination, the pressing-piston, the fixed platen, the drying-cases, and the catch-fingers, substantially as described, and for the purpose set forth.

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BENJAMIN A. MASON.

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