S. R. BARTLETT.
Press.

No. 198,834. Patented Jan. 1, 1878.

FIG. 2.

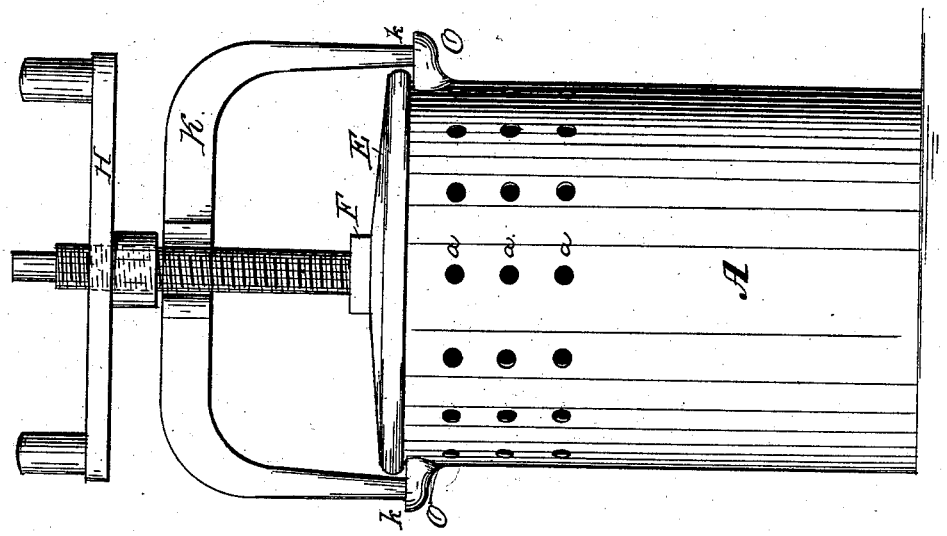
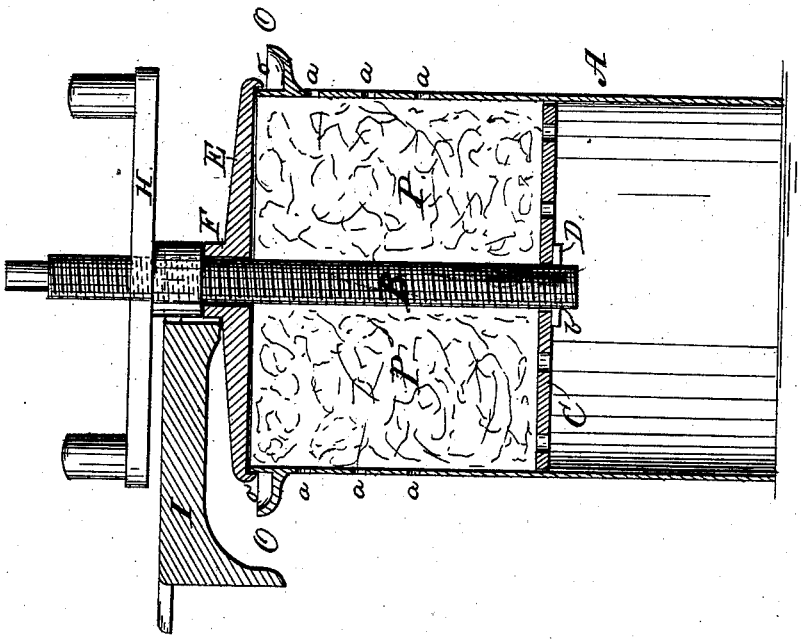


FIG. 1.



WITNESSES
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Edward Dillon

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UNITED STATES PATENT OFFICE.

SAMUEL R. BARTLETT, OF DETROIT, MICHIGAN.

IMPROVEMENT IN PRESSES.

Specification forming part of Letters Patent No. **198,834**, dated January 1, 1878; application filed December 11, 1877.

To all whom it may concern:

Be it known that I, SAMUEL R. BARTLETT, of Detroit, county of Wayne, and State of Michigan, have invented certain Improvements in Presses, of which the following is a specification:

The following description, taken in connection with the accompanying plate of drawings, hereinafter referred to, forms a full and exact specification, wherein are set forth the nature and principles of the invention, by which the same may be distinguished from others of a similar class, together with such parts thereof as are claimed as new, and are desired to be secured by Letters Patent of the United States.

This invention relates to that class of presses used for separating liquids from the solids which contain them; and the nature thereof consists, first, in making the press in such a way that the revolving of the screw in the nut of the press causes the plunger to be drawn up out of the liquid, causing the matter to be pressed against the pressing-floor, which is placed on the top of the colander; second, in the combination of devices by which the press is held in place against turning around when pressure is applied; third, in the combination of devices by means of which the cake of recremental matter is drawn out of the colander after pressing is done; fourth, in the combination of devices by means of which the screw, the plunger, and the cover are separated from the cake of recremental matter.

Referring to parts by letters, A represents the colander or receiver for the article to be pressed. It is shown cylindrical in form in the drawings, open at both ends, and perforated with holes *a a a*. E is a cover or pressing-floor, which fits the colander A. It takes the place of the ordinary pressing-floor, which has been placed at the bottom of the colander, and also serves to guide the screw. Its center is pierced with a hole, through which the screw B passes freely. Its hub F is formed square, to fit the wrench I. B is a screw, made to fit a nut made in the lever H. Through its lower end is made a hole or slot, *b*, through which passes freely the pin D. H is a lever. It has a nut cut in it to fit the thread of the screw B. I is a wrench, which is fastened to some convenient place or held in hand. K is a clearing-arch, which is made with a hole or slot in its center to freely fit the screw *b*. Its ends *k k* fit holes formed in the lugs *o o*. O O are lugs fastened on opposite sides of the colander A. C is a plunger or piston, made to fit freely the colander A. It has a hole made in its center, through which the screw B passes freely. It is usually perforated with holes. D is a pin, made to freely fit the hole *b* in the screw B; P, the article to be pressed.

The operation is as follows: The screw B is pressed through the plunger C far enough to allow the pin D to pass into the hole *b*. Then the screw B, with the plunger C attached, is placed in the colander A, and the article to be pressed is put in onto the plunger and around the screw. Then the cover E is put on the colander, the hole in its center pressing over the screw and holding it in the center. Then the lever H is turned onto the screw B until the hub bears on the hub of the cover E; then continue turning the lever, the screw standing still, and draw up the plunger C, sustained by the pin D in the hole *b*, until the matter P is pressed between the plunger and the cover E. When the power applied to the lever H causes the press to turn around, apply it to the wrench I, which is fastened to a wall or bench, or held by hand, as may be convenient. The square formed in the wrench I, engaging with the square hub of the cover E, will hold the press in place against turning; so continue pressing with the matter drawn up out of the liquid, which drains down away from it in proper receptacles. (Not shown.)

In some cases it is best to make the threaded nut in the center of the plunger E, and attach the lever H by a movable pin, so that the screw, when turned by the lever, will pass down through the plunger, and raise the plunger in the same manner out of the liquid, producing the same effect in substantially the same manner. After pressing it is necessary to remove the cake of recremental matter from the colander, and, in some cases, to preserve the shape of the cake. To do this, after pressing remove the press from the wrench; then unscrew, and raise the lever H enough to allow the clearing-arch K to pass around the screw B, its ends *k k* resting in the lugs *o o* on the colander A. By

turning the lever H on the screw against the clearing-arch K, the cover E, cake of recremental matter P, and plunger C will all be drawn out of the colander A. Then removing the clearing-arch, and also the pin D from the hole *b*, the screw B may be drawn out of the cake P by means of the lever H being screwed against the cover, and then the cake P may be readily detached from the cover and plunger in proper shape for sale or use. This completes the process.

What I claim is this—

1. The draw-up plunger C, movable and adjustable to the screw B, the colander A, the cover E, the threaded lever H, substantially as described, and for the purpose specified.

2. The wrench I, movable and adjustable to the cover E, the screw B, the threaded lever H, the plunger C, substantially as described, and for the purpose specified.

3. The clearing-arch K, movable and adjustable to the lugs *o o*, the colander A, the screw B, the plunger C, the threaded lever H, and the cover E, substantially as described, and for the purpose specified.

4. The pin D, movable and adjustable to the hole *b* in the screw B, the threaded lever H, the plunger C, and the cover E, substantially as described, and for the purpose specified.

In testimony that I claim the foregoing I have hereunto set my hand this 26th day of November, 1877.

SAMUEL R. BARTLETT.

Witnesses:

GEO. B. BARTLETT,

F. STEARNS.