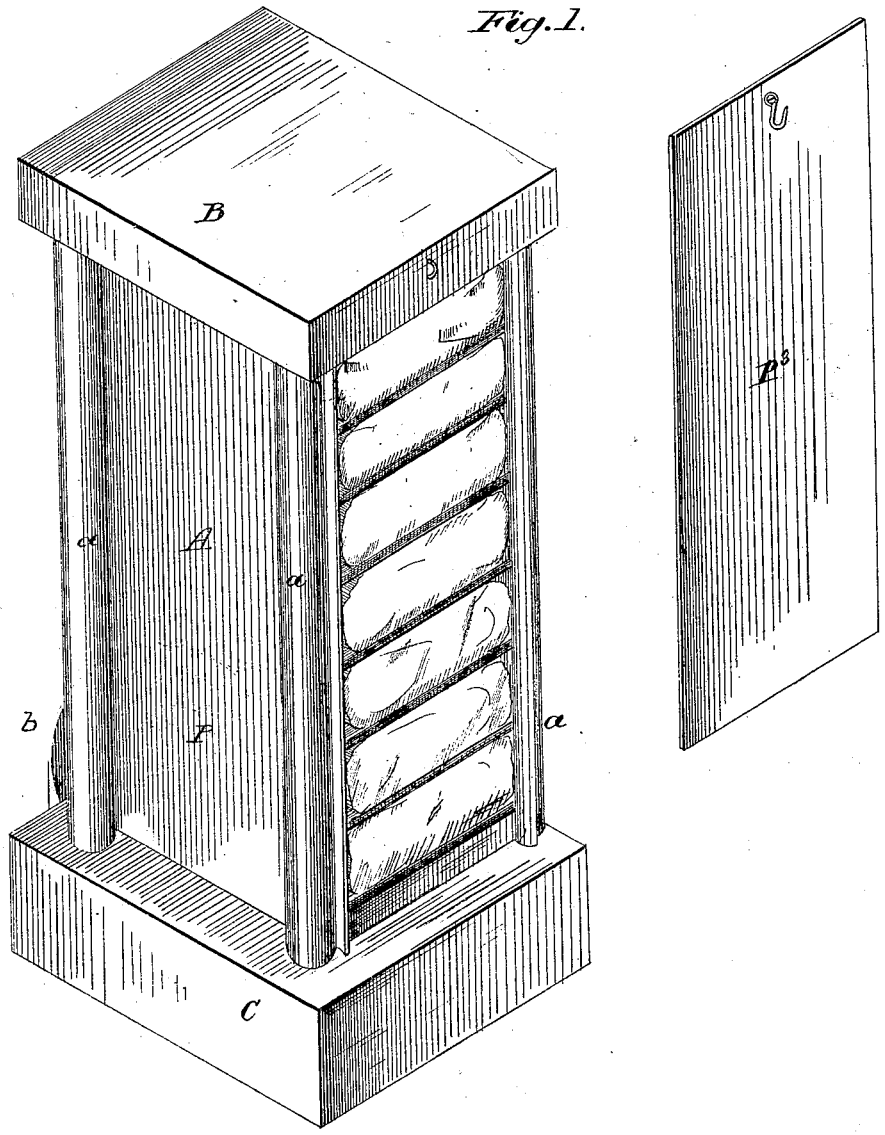
2 Sheets—Sheet 1.

J. T. HARBINE.

Oil-Press.

No. 205,637. Patented July 2, 1878.

Fig. 1.



Witnesses:
Fred G. Dieterich
Jno P. Brooks.

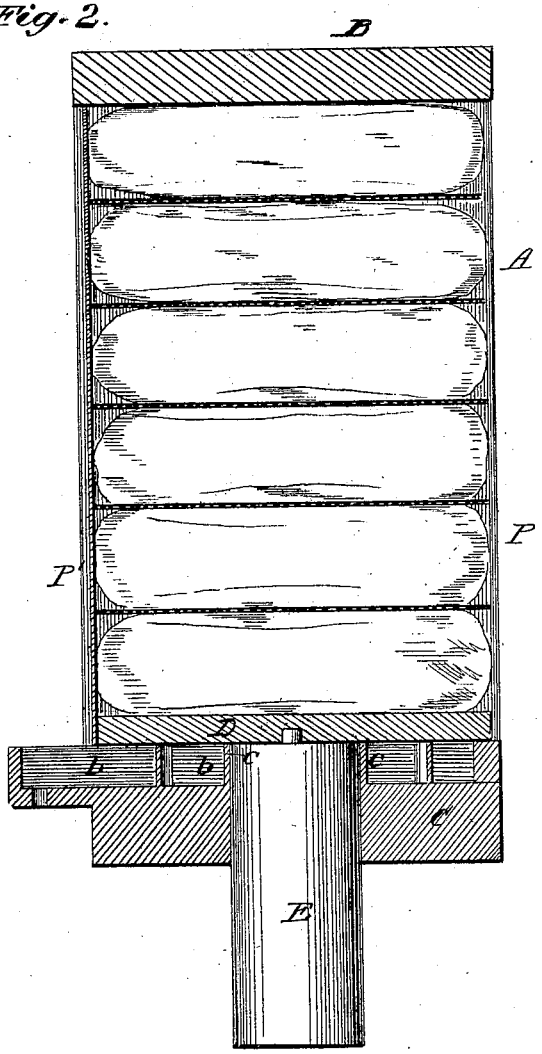
Inventor:
John Thomas Harbine
by Louis Bagger & Sons
his attorneys

2 Sheets—Sheet 2.

J. T. HARBINE.
Oil-Press.

No. 205,637. **Patented July 2, 1878.**

Fig. 2.



Witnesses:
Fred G. Dieterich
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Inventor
John Thomas Harbine
by Louis Bagger & Co.
his Attorneys

UNITED STATES PATENT OFFICE.

JOHN T. HARBINE, OF XENIA, OHIO.

IMPROVEMENT IN OIL-PRESSES.

Specification forming part of Letters Patent No. **205,637**, dated July 2, 1878; application filed June 5, 1878.

To all whom it may concern:

Be it known that I, JOHN THOMAS HARBINE, of Xenia, in the county of Green and State of Ohio, have invented certain new and useful Improvements in Oil-Presses; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

This invention relates to certain improvements in oil-presses, or that class of presses used for the purpose of compressing various substances, principally meal of certain seeds, in order to obtain the oil contained therein; and it consists in the adaptation of the press for my improved mats or partitions, forming the subject-matter of a separate application for patent.

My invention further consists in certain improvements in the box or cylinder-bottom of the press, as will be hereinafter more fully shown and described.

In the drawings, Figure 1 is a perspective view of the press charged and ready for operation, and Fig. 2 is a vertical sectional view of the press.

Similar letters of reference denote corresponding parts in all the figures.

A is the press. This consists of four columns or uprights, *a a*, uniting the top piece B with the base or cylinder-bottom C. The latter consists of a solid box or casting, in which is sunk a recess, *b*, to receive the oil, which is conducted through a perforation or spout to vessels outside the press.

The casting C has a central perforation for the ram E, worked by hydraulic or other pressure, and around the perforation is formed a rim or collar, *c*.

By this construction the pressman is enabled, at any time, to detect if the packing around the ram is leaking, as, if such is the case, the fluid used for forcing it will run over the upper edge of the collar *c* and down the sides thereof, whereas if the collar was left off, as usual in this kind of presses, the bottom of the box being covered with oil, such discovery could not be made, and a large proportion of the power would be lost.

It will be obvious that old presses of the construction now usually employed may be readily supplied with my improvement by placing upon the cylinder-bottom, which is flat, a box made of cast or wrought iron and embodying my improvement. A simple collar and rim, suitably arranged and secured, would practically serve the same purpose.

The sides P P^1 and rear end of the press-box are formed by plates of sheet metal, either plain or corrugated. In the latter case the corrugations form channels for conducting the oil to the box or receptable *b*.

In order to simplify the reconstruction of old presses, and also to make the box more readily removable, I prefer to construct each of the sides of a separate plate, and to bolt the side plates to the rear one, as shown. The front side of the press-box is open; but, while the operation of pressing is going on, I prefer to cover it with a detachable plate, P^3, which forms a lid or cover, and serves to prevent oil from splashing out at the front side of the press. The lower end of plate P^3 is notched to enable it to enter the box, and it is retained in position by a catch or equivalent device at the top of the press.

The operation of my invention will be readily understood. I place upon the ram-plate D one of my improved mats, forming the subject-matter for separate application for patent; then upon this a charge of the material to be pressed; then another mat, another charge, and so on until the press-box is full. The front plate or cover is now adjusted, and pressure may then be applied in the usual manner.

It will be observed that when the press-box is packed full the pressure upon the charges commences at once, while in other presses the ram frequently has to travel a distance of from one to three feet before this is the case, resulting in great loss of power. The grooves or corrugations in the sides conduct the oil, as it escapes, to the box or receptacle below, and, when sufficiently drained, the cakes may be readily removed after detaching the front plate or cover of the press-box.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

As an improvement in oil-presses, the top piece B, uprights *a a*, cylinder-bottom C, having recess or box *b* and collar *c*, and the press-box P P^1, having detachable front side or cover, all combined and operating substantially as and for the purpose herein shown and specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

JOHN THOMAS HARBINE.

Witnesses:

JOHN LITTLE,

C. C. SHEARER.