No. 632,156. Patented Aug. 29, 1899.

C. E. SNYPP.

PRESS PLATE.

(Application filed Dec. 29, 1898.)

(No Model.)

FIG. 1.

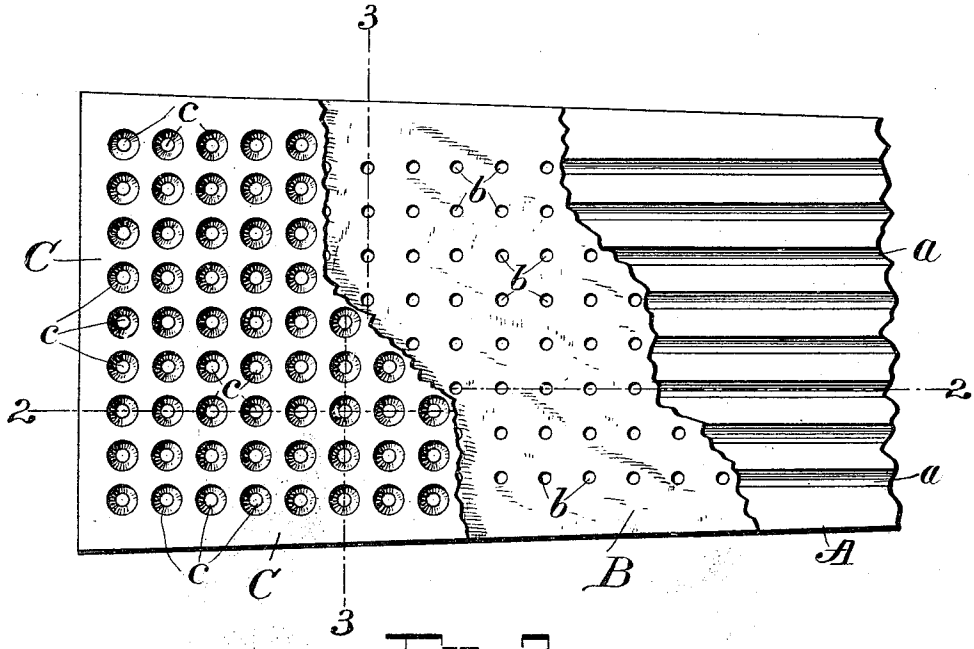


FIG. 2.

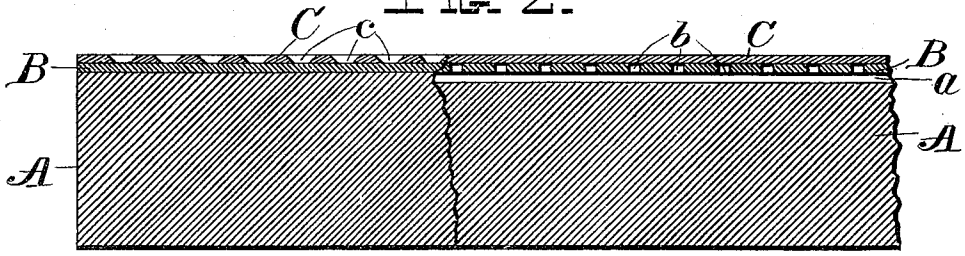
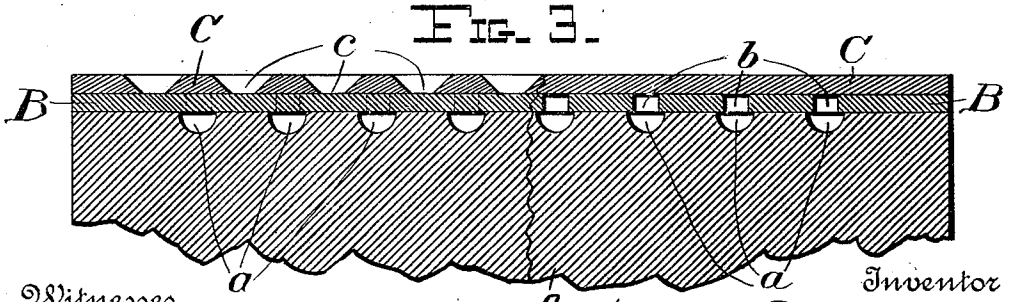


FIG. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

CHARLES E. SNYPP, OF GRETNA, LOUISIANA.

PRESS-PLATE.

SPECIFICATION forming part of Letters Patent No. 632,156, dated August 29, 1899.

Application filed December 29, 1898. Serial No. 700,630. (No model.)

To all whom it may concern:

Be it known that I, CHARLES E. SNYPP, a citizen of the United States, residing at Gretna, in the parish of Jefferson and State of Louisiana, have invented certain new and useful Improvements in Press-Plates; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in press-plates for oil-presses, although it may be used in other relations where filtering is accomplished under pressure; and it consists in the construction and combination of parts, as hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a top plan view of a fragment of my improved press-plate, parts being broken away. Fig. 2 is a longitudinal section on line 2 2 of Fig. 1, and Fig. 3 is a cross-section on the line 3 3 of Fig. 1.

My improved press-plate consists of a backing A, provided with longitudinal grooves *a* in one surface, although, if desired, perforations may be substituted for these grooves, and the grooves may be arranged in any direction to allow free drainage. On this plate is laid another plate B, provided with perforations *b*, which are arranged directly over the grooves *a* or over the perforations which may be used instead of these grooves. Above the plate B is another plate C, provided with holes *c*, each shaped in the form of a truncated cone with the apex next to the plate B. The perforations *c*, however, are not arranged over the perforations *b*, and this is an important point in the construction of the plate. These plates may be fastened together and to the backing A, if desired; but this is not necessary. The material from which oil is to be expressed is driven by hydraulic pressure, in any suitable form of press, against the plate C, whereby the oil will pass between the plates C and B, thence through the perforations *b*, and thence out through the grooves *a*, the sharp feather-edges of the perforations *c* preventing any solid matter from passing through with the oil.

In the common operation of expressing oil from cotton-seed the meal or kernel after it has been prepared by rolling and cooking is put into bags or wrapped up in a cloth, forming a kind of cake. This cake is then compressed slightly to enable it to be conveniently handled and then put into the hydraulic press, which consists of a series of boxes provided with a perforated plate or with drainage-grooves. After the press is filled pressure is applied and the cake is subjected to about four hundred tons pressure, and the oil escapes through the cloth and perforations or grooves. By the use of my improved press-plate, arranged, as shown, with the conical holes and with the larger ends opening toward the material to be treated, I can dispense with the use of the press cloth or sacking, and therefore can use a horizontal press with the boxes open at the top. The result is that the material can be emptied directly into the boxes, thus saving a great amount of labor and expense in wrapping the meal in cloth, in forming the cakes, in putting them into the press, and in removing the cloth.

All the parts of my improved plate are preferably formed of metal, although I do not restrict myself in this respect.

Changes might be made in various details of my invention without departing from the spirit thereof, and I wish it to be expressly understood that I do not limit myself to the exact form shown and described.

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

1. A press-plate composed of a backing provided with grooves or perforations, and two plates provided with perforations so arranged that they do not register, the parts of the press-plate being in contact with each other, substantially as described.

2. A press-plate composed of a backing provided with longitudinal grooves on one of its surfaces, a perforated plate in contact therewith, said plate and backing being arranged relatively to each other so that the perforations will be in line with the grooves, and a second perforated plate in contact with the first-named plate, so arranged relatively to the first plate that the perforations of the two plates will not register with each other, substantially as described.

3. A press-plate composed of a metal backing, provided with grooves on one surface, a metal plate in contact with said backing and provided with perforations situated directly in line with the grooves in the backing, and a second metal plate provided with conical openings arranged with their larger ends outward, the two plates being in contact and so arranged that the perforations thereof do not register with each other, substantially as described.

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

CHARLES E. SNYPP.

Witnesses:
HARAN H. HARVEY,
WILLIAM C. RAUM, Jr.