

(No Model.)

W. KRUTZSCH.

OIL PRESS MAT.

No. 328,414.

Patented Oct. 13, 1885.

Fig. 1.

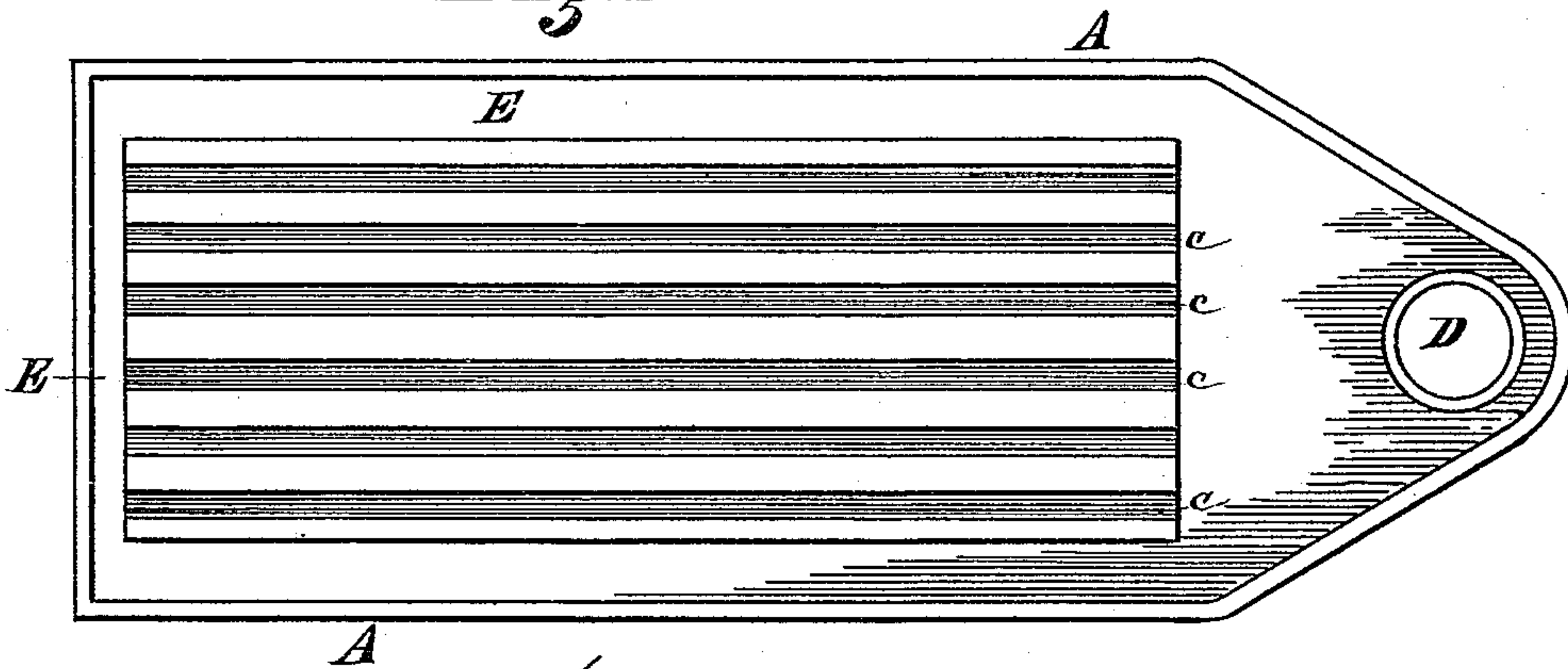


Fig. 2.

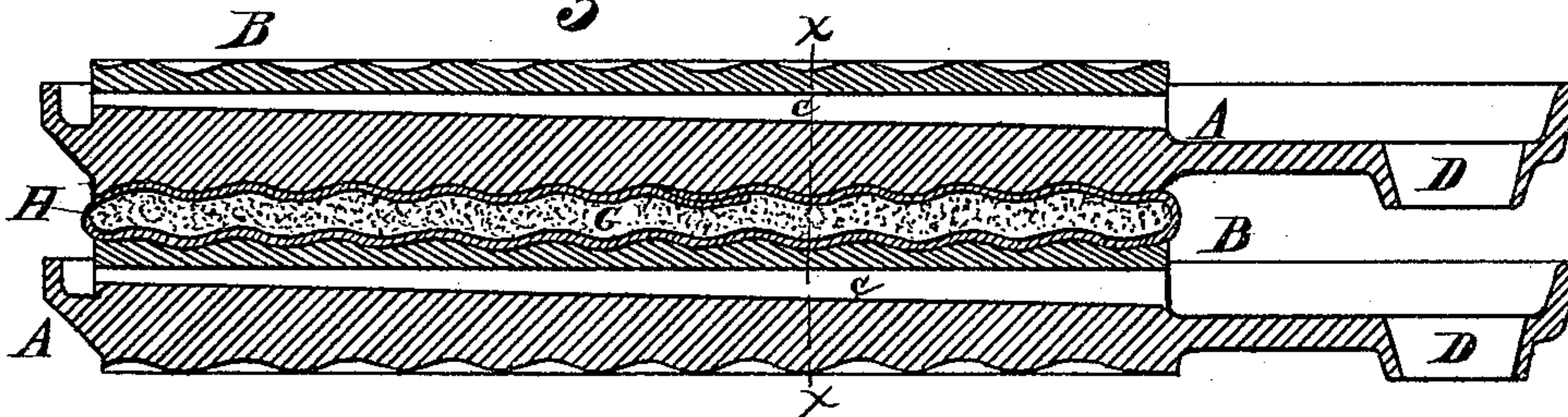


Fig. 3.

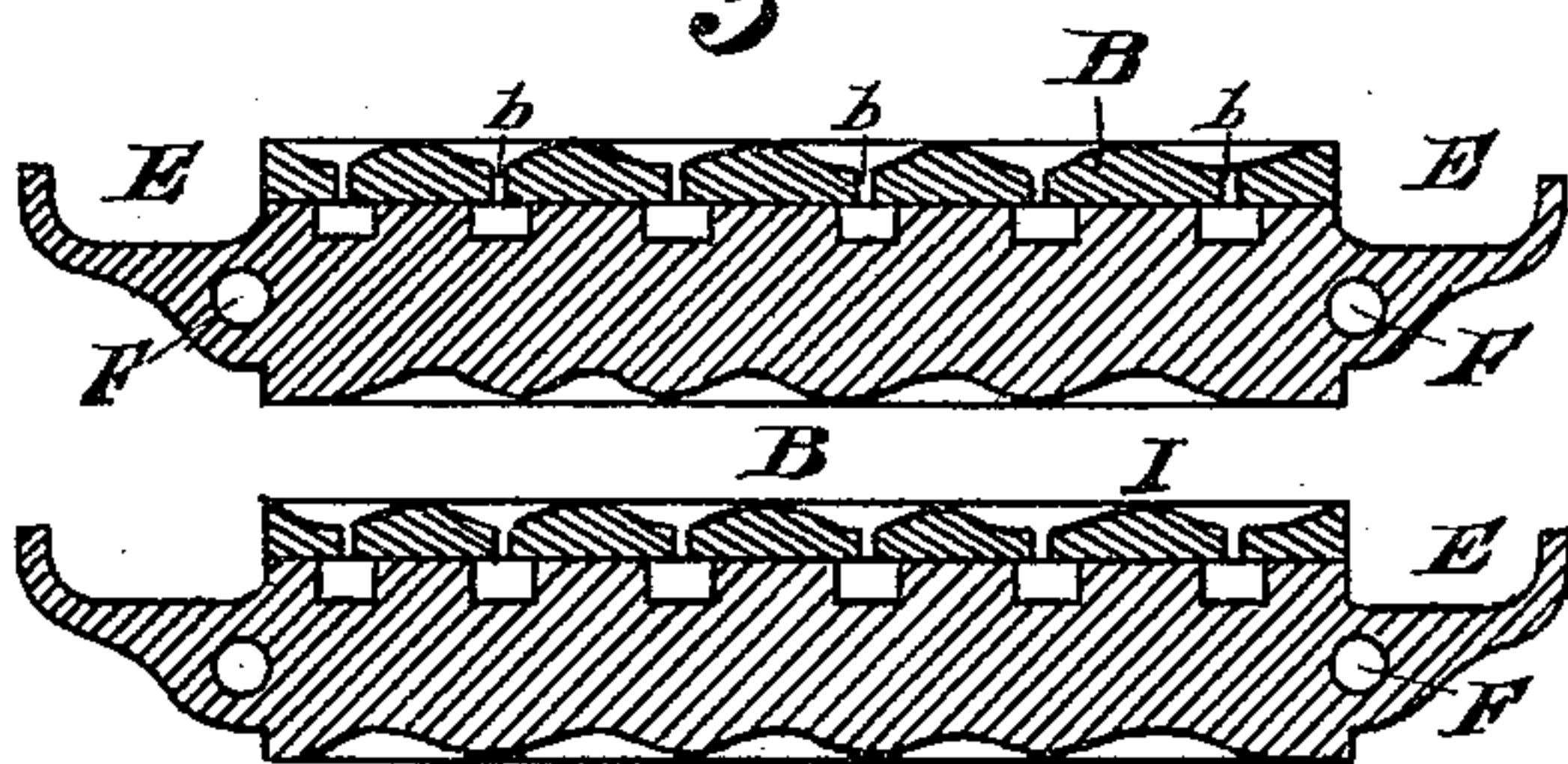


Fig. 4.

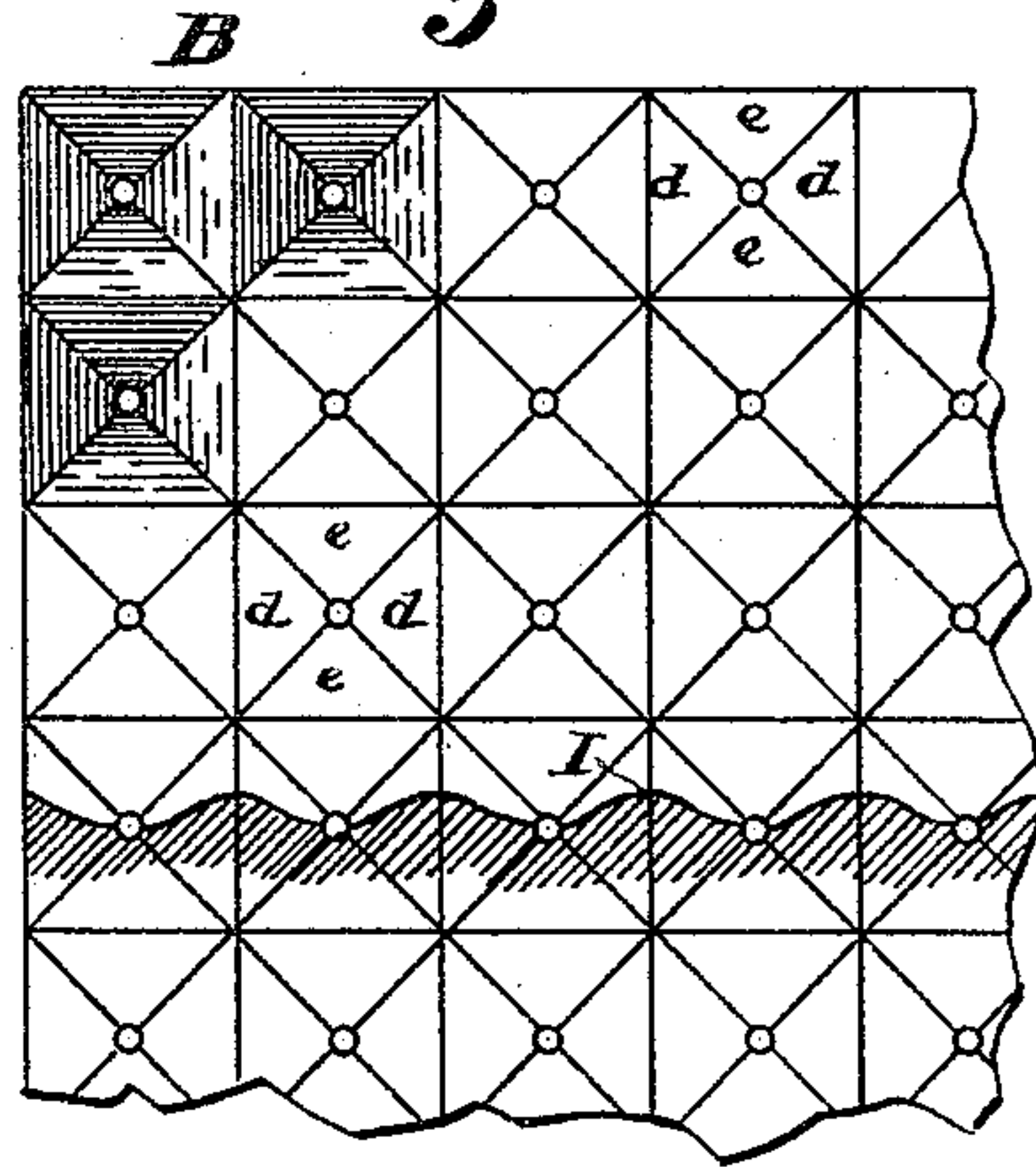


Fig. 5.

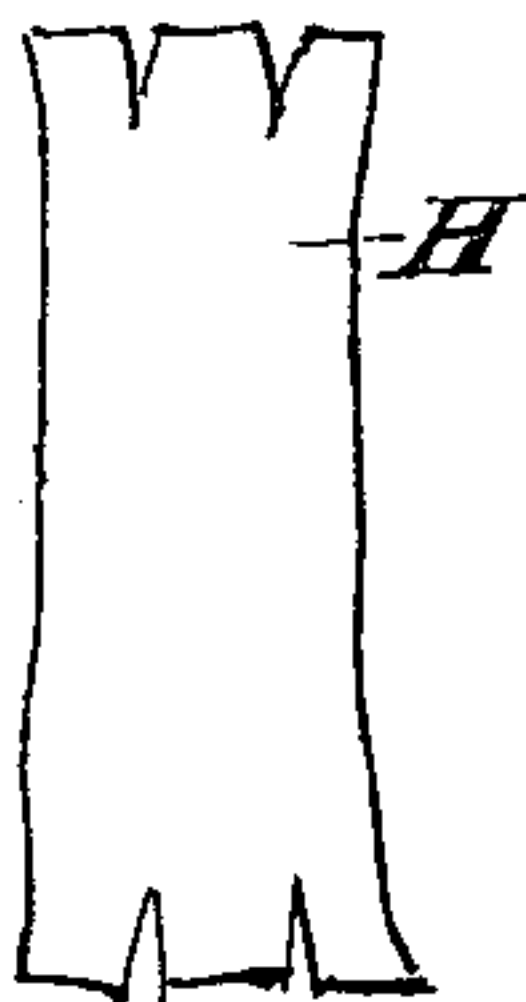
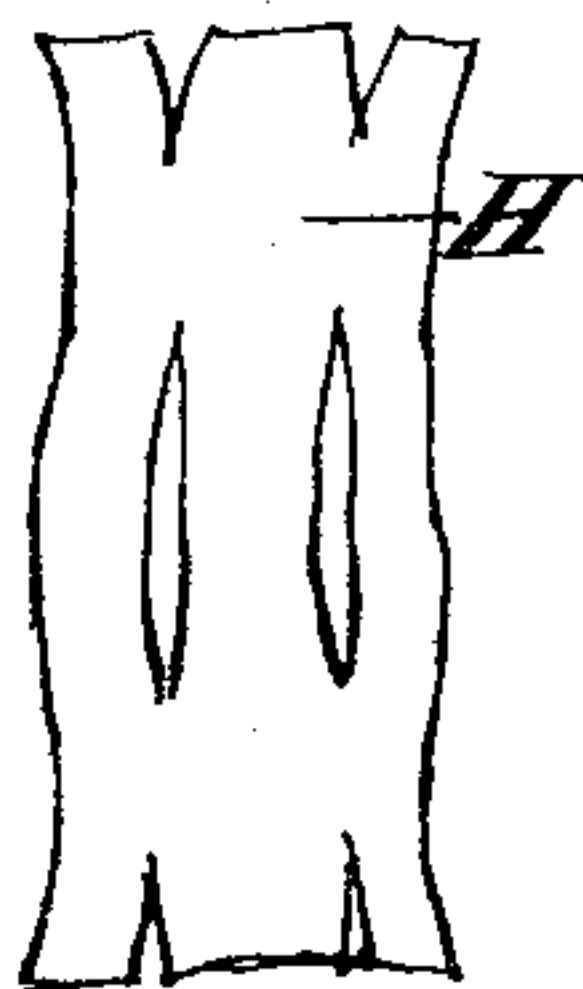


Fig. 6.



Attest

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UNITED STATES PATENT OFFICE.

WILLIAM KRUTZSCH, OF DAYTON, OHIO, ASSIGNOR TO THE BUCKEYE IRON
AND BRASS WORKS, OF SAME PLACE.

OIL-PRESS MAT.

SPECIFICATION forming part of Letters Patent No. 328,414, dated October 13, 1885.

Application filed July 1, 1885. Serial No. 170,377. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM KRUTZSCH, a resident of Dayton, in the county of Montgomery and State of Ohio, have invented certain
5 new and useful Improvements in Oil-Presses, of which the following is a specification.

My invention relates to an improvement in the face of platens for seed-oil presses.

It has been customary hitherto to make the
10 face of the platen or "box" with transverse corrugations or curvilinear lines, so as to prevent the cloth from slipping under the face of the platen.

In practice the form of platen-face has serious objections. As the meal is of a yielding nature it spreads laterally under pressure. It is in some degree held in place by the cloth; but as this is thin and cannot be used strong enough to overcome the "creeping" tendency
20 of the meal the cloth is soon stretched, and after a little more use is torn and rendered wholly worthless, making the cost of the cloths a heavy expense in the manufacture of seed-oil. My improvement overcomes these difficulties by making the face of the platen a series of curvilinear or oval projections, each surrounded on all sides by a concave channel or furrow, so as to allow the oil to escape around the convex or curvilinear projections
30 and pass off through the furrows or channels. Another object of my invention is to procure an easier escape of the oil over the face of the platens. All of which will be more fully set forth in the description of the accompanying
35 drawings, making a part of this specification, in which—

Figure 1 is a plan view of the oil-box having the platen-face removed. Fig. 2 is a longitudinal cross-section of the finishing-boxes
40 in position as used. Fig. 3 is a cross-section on line *x x*, Fig. 2. Fig. 4 is a broken plan view of the face of the platen, the transverse lines showing the transverse corrugations or projections. Figs. 5 and 6 illustrate the wearing of the cloth in the old form of platens.
45

My improved platen and box is used with the ordinary press and need not be described.

A represents a common oil-box. It is provided with a series of longitudinal channels,
50 *c*. B represents the platen or face of the box,

which is secured upon the box vertically over the channels *c*, as shown in Figs. 2 and 3, in the usual manner.

b represents a series of fine holes pierced through the face of the platen leading into the
55 channels *c*.

E represents a channel formed around the box outside of the platen, forming a gutter into which the oil escapes, and leading to a spout or outlet, D, at one end of the box. 60

F F represent steam-pipes for heating the boxes.

G represents the cake of meal pressed between the platens.

H represents the cloth or bag which is folded around the meal or cake. 65

I represents convex projections or curvilinear points formed by the crossing of a series of longitudinal and transverse grooves, furrows, or depressions. 70

d d represent the transverse furrows.

e e represent the longitudinal furrows. The holes *b* are pierced through the intersection of these furrows in the face of the bottom platens, so as to carry the oil into the channels *c*. I have shown these furrows running at right angles to each other in planes parallel with the sides of the box; but the direction in which the checkered furrows run is immaterial. 80

It is necessary to have the projections of curvilinear or convex form, so as to avoid all sharp or abrupt points and lines, which would tear the cloth.

In the operation of pressing oil the parts
85 are usually employed as follows: After being formed into a cake by a light pressure the meal inclosed in the cloth H is placed between the boxes of the press. One cake is placed between each two boxes, as shown in Fig. 2. 90 The cake G is then placed between the two box or platen faces, and a series of them is usually placed one above the other under hydraulic press and subjected to severe pressure. With the ordinary platen or box face
95 the cloth would soon stretch laterally and then commence to tear at the ends, as shown in Fig. 5, and with further use would usually tear in the form shown in Fig. 6. I have found by experience that with the longi- 100

nal and transverse or checkered form of furrows and oval projections the cloth will last very much longer and the oil escape more freely than with the common form of platen.

5 The corrugations on the lower side of the box are the same as those on the upper side; but there are no holes for the oil to escape through the platen. The oil all escapes through the lower plate.

10 Having described my invention, what I claim as new, is—

1. In an oil-press, the box or platen having its face formed of a series of convex projections intersecting each other at right angles
15 and surrounded on each side by a concave furrow or groove, substantially as described.

2. In an oil-press, the platen or box having its face formed of a series of convex projections intersecting each other at right angles
20 and surrounded on each side by concave fur-

rows or grooves, and the intersections of the furrows provided with small holes *b*, leading to the furrows *c* of the box A, to which the platen is attached, substantially as described.

3. In an oil-press, the combination, with 25 the box A, an upper platen formed of a series of convex projections intersecting each other at right angles and surrounded on each side by concave furrows or grooves pierced with holes *b*, leading into the channels *c*, and the 30 bottom face formed of corresponding projections and grooves or furrows, substantially as described.

In testimony whereof I have hereunto set my hand.

WILLIAM KRUTZSCH.

Witnesses:

JOHN L. H. FRANK,
FRED ECKI.