

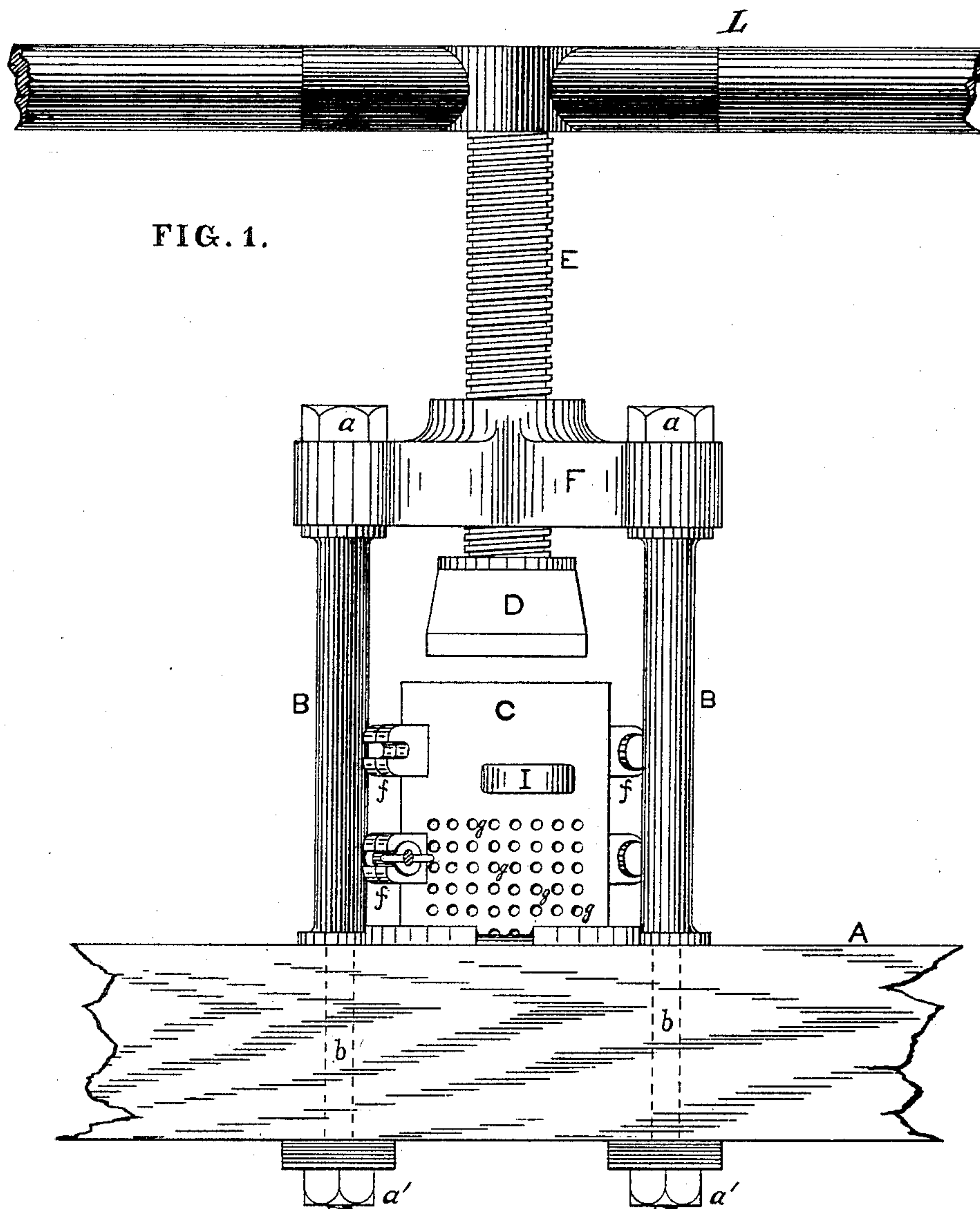
(No Model.)

2 Sheets—Sheet 1.

F. W. CROSS.  
POWER PRESS.

No. 327,660.

Patented Oct. 6, 1885.



WITNESSES.

*W. Johnston*  
*Newton Lovejoy,*

INVENTOR.

*Frank W. Cross*  
*By. J. H. Mac Donald*  
*Atty.*

(No Model.)

2 Sheets—Sheet 2.

F. W. CROSS.  
POWER PRESS.

No. 327,660.

Patented Oct. 6, 1885.

FIG. 4.

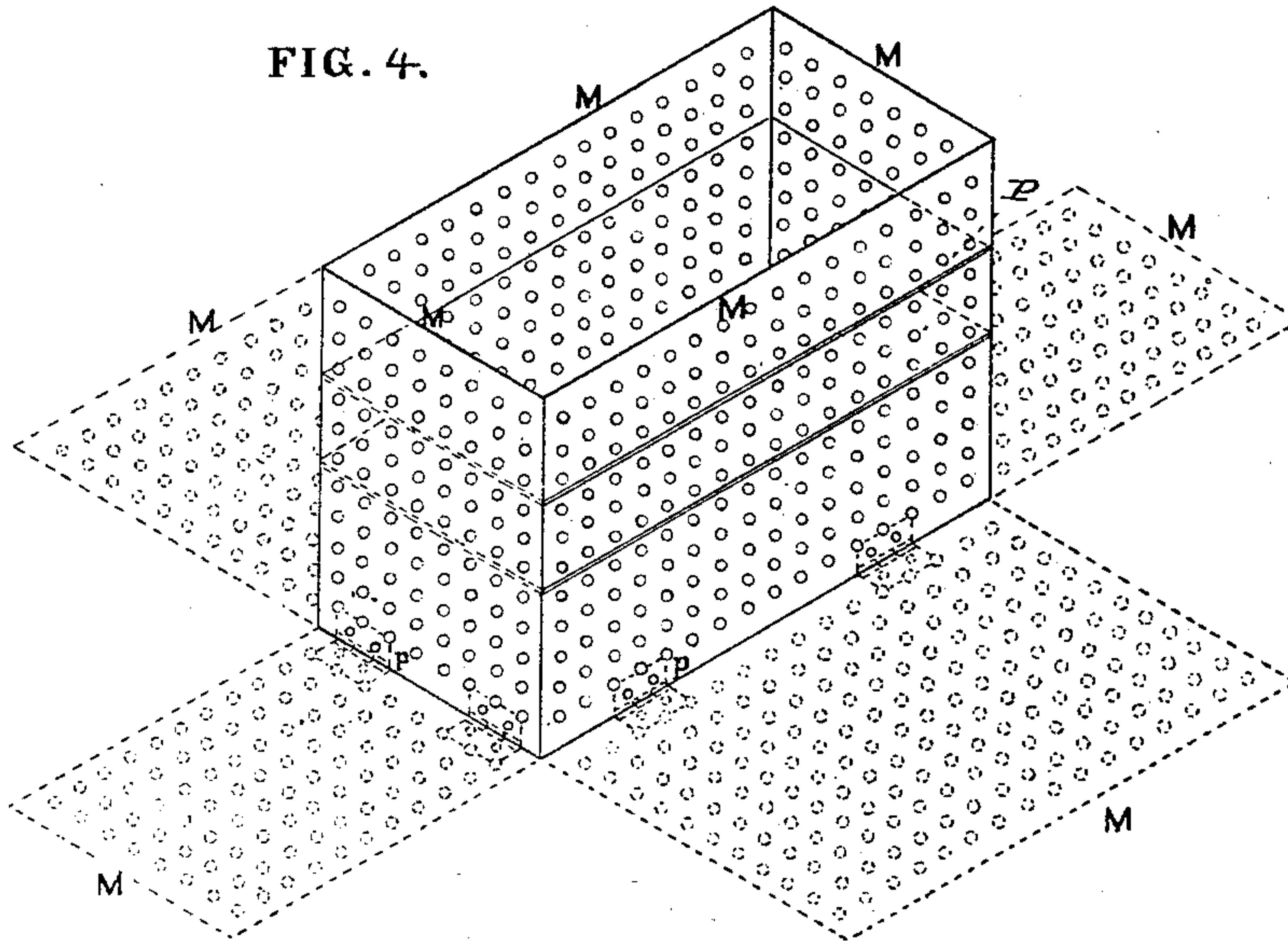


FIG. 2.

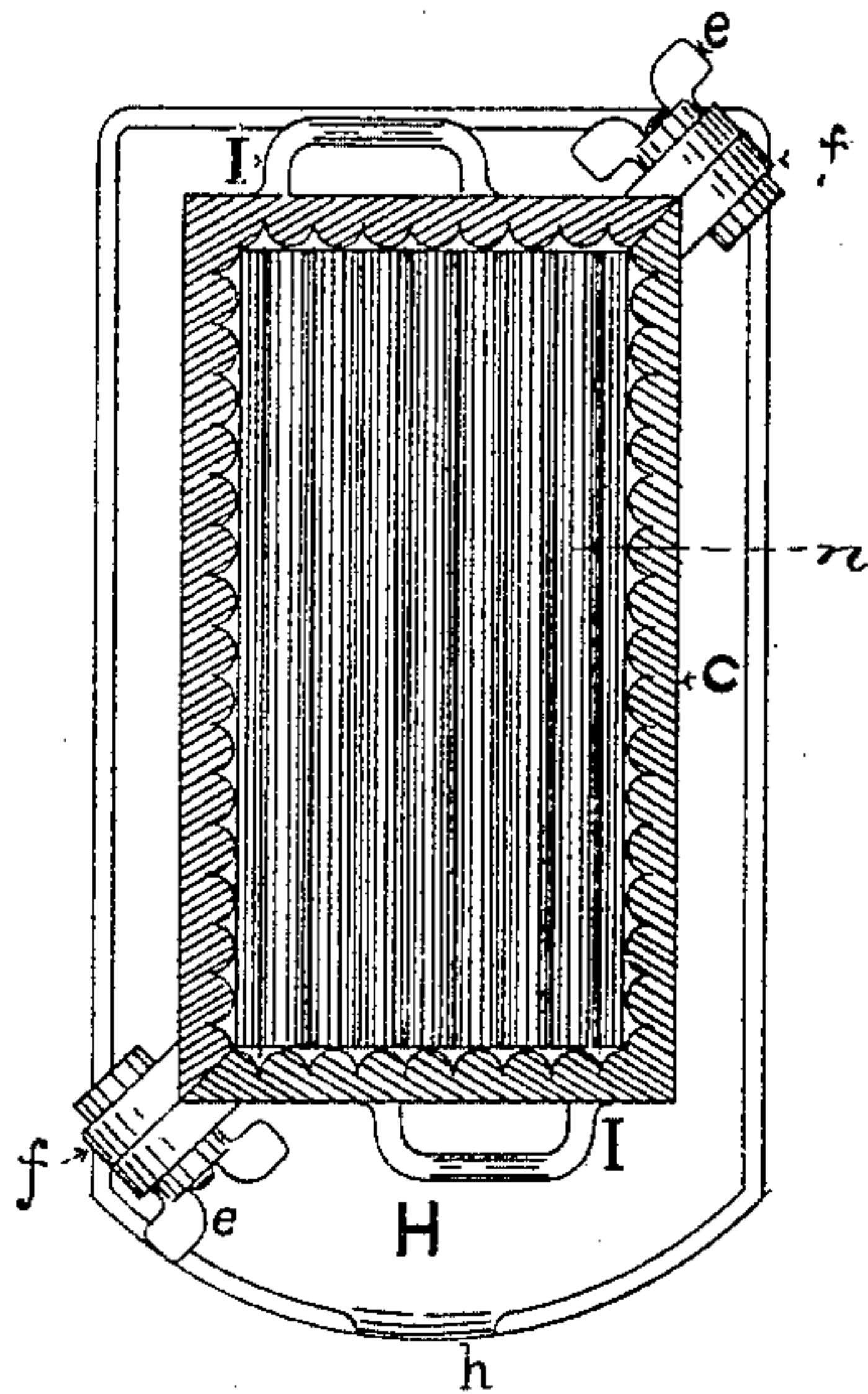
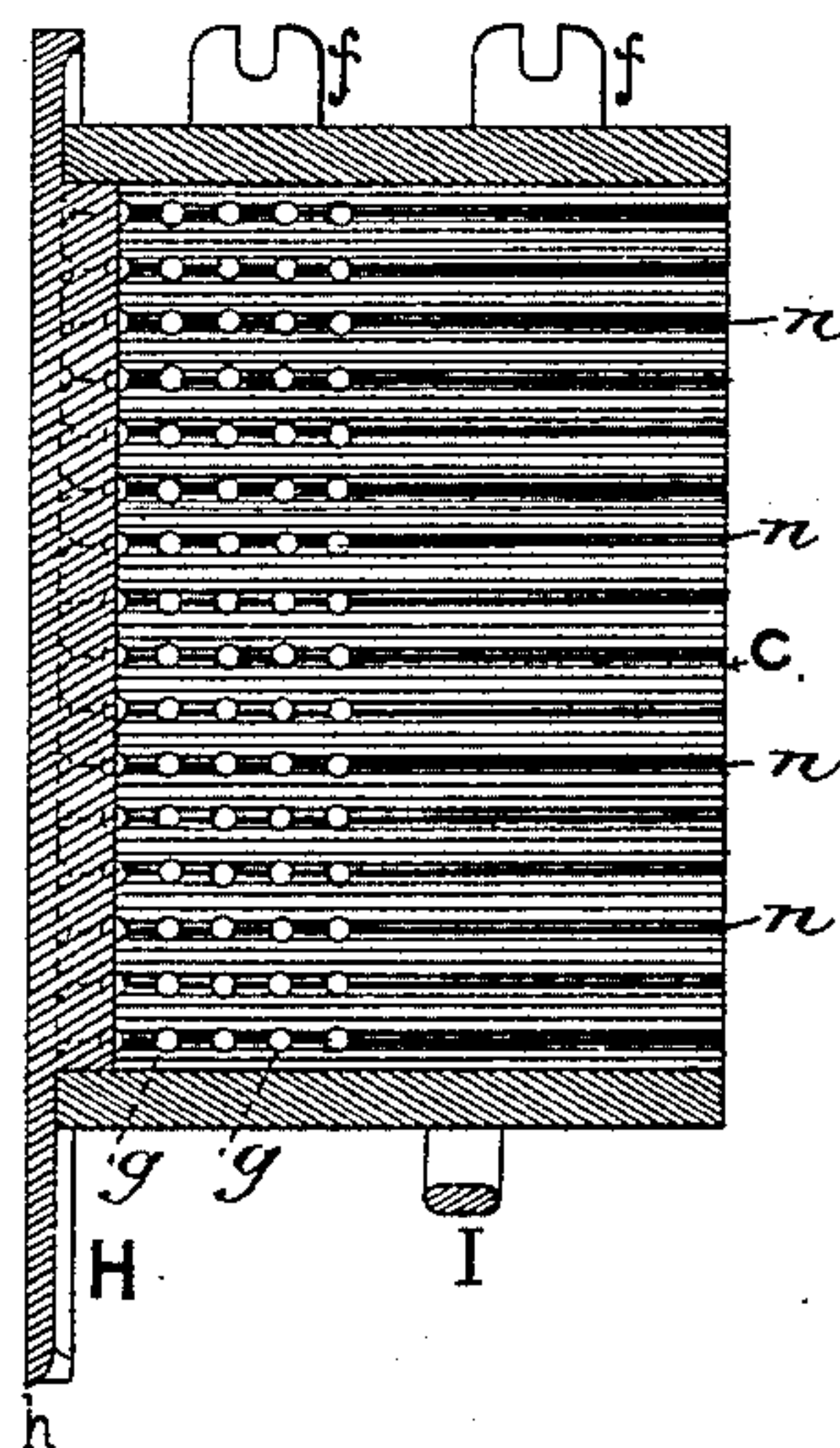


FIG. 3.



WITNESSES.

*W. J. Johnston*  
*Newton Lovejoy*

INVENTOR.

*Frank W. Cross*  
By *J. H. MacDonald*  
*Atty.*



# UNITED STATES PATENT OFFICE.

FRANK W. CROSS, OF WASHINGTON, DISTRICT OF COLUMBIA.

## POWER-PRESS.

SPECIFICATION forming part of Letters Patent No. 327,660, dated October 6, 1885.

Application filed March 10, 1885. Serial No. 158,311. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK W. CROSS, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Power-Presses; 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 improvements in power-presses.

The object, primarily, of the device is to present a simple and effective press for obtaining oil from cotton-seed and linseed meal; but it is obvious that such a press may also be used for expressing lard-oil from leaf-lard, or juices from fruit, or, in fact, can be utilized wherever and for whatever purpose power-presses are required.

The details of construction and operation of the device will be hereinafter fully set forth in the specification, and pointed out in the accompanying drawings, in which—

Figure 1 is a side elevation of my improved power-press; Fig. 2, a transverse section of the meal-receptacle and casing therefor; Fig. 3, a vertical section of same, and Fig. 4 a detail perspective view of the hinged meal box or basket.

Similar letters of reference refer to similar parts in the several figures.

To refer more particularly to the drawings, the press is secured to a bed, A, in any suitable way. In order to obtain durability and economy, I prefer to pass bolts *b* through columns B, which are secured at top and bottom by nuts *a a'*. A screw-threaded guide-piece, F, is also attached to the upper end of the columns B, and receives the screw-shaft E, at the lower end of which is a follower-block or plunger, D. The screw-shaft E is operated by a lever, L, which can be actuated by hand or horse power; or, where steam or water can be easily obtained, said shaft can by suitable mechanical gearing be actuated directly by such power.

I propose to make several sizes of presses. The smaller ones can be actuated by one man, and will therefore be easily attainable by farmers, planters, or others having a limited

amount of seed-meal or material to be pressed and without steam or water power. The larger sizes can be used by planters and others having steam-power for their gins, cotton-presses, &c. As a matter of fact the follower can be pressed down directly into the casing C by means of the ordinary cotton-press follower, and the shaft E need not be screw-threaded. This application of power just described will apply equally well to cider-presses, lard-presses, &c., as to cotton-seed-meal presses.

The exterior casing, C, is perforated, as shown in Fig. 3, and has corrugations, grooves, or channels *n* in the bottom and sides, by means of which the expressed oil or juices can freely and rapidly flow to the pan H, and thence by the openings *h* therein to the receiving-vessel. Not only the bottom but the sides of said case C are provided with channels *n*, as shown in Fig. 3.

The interior jacket for receiving the meal or other products to be pressed consists of four hinged sides or perforated plates, M, such as shown in Fig. 4, the sides being hinged at *p*. This interior jacket is placed within the casing C, which is provided with lugs *f*, held in place by means of bolts and jam-nuts, *e*. The ends are provided with handles I, by which the parts can be easily lifted into or out of place.

The operation is as follows: The receptacle or interior jacket, M, is placed within the casing C. It is then filled with the seed-meal or other matter to be pressed. The follower, which just fits said receptacle, is forced down therein by means of the shaft E and lever L, or by any other suitable means, such as the cotton-press follower. The great pressure applied expresses the oil or juices, which flow down the sides and out through the bottom channels into the receiving-pan H, and thence to the receiving-receptacle. The perforated plates P are placed within the jacket or basket M. Said plates are of suitable strength and sufficient in number to produce a resultant cake or cakes of any desired thickness. After the matter contained in the basket has been thus pressed, the plunger D is removed, the sides of the jacket C unfastened, and the basket M removed therefrom. The sides are



then turned down outwardly, admitting of the plates P being alternately lifted out and the residual matter taken therefrom.

5 A strainer may be attached to the spout h, so as to prevent any admixture of the meal or other expressed matter with the oil or juices.

10 In order to obtain the best results when cotton-seed or other seed-meal is to be pressed, said meal should be heated to a suitable temperature previously to being subjected to the pressure, for which purpose a suitable heating apparatus can be provided.

15 The receptacle M can be of any convenient size, and the cake or cakes removed therefrom be of a suitable thickness.

It is obvious that said cake can be easily crushed and be utilized for any purpose for which they are intended.

20 It will be observed that the meal-receptacle and outside casing can be used as well with hydraulic power as with the ordinary hand or mechanical powers.

25 By placing leather packing to prevent friction at the lower end of screw E the ordinary cotton-press power may be used directly for forcing the plunger G into the basket or meal-receptacle.

30 It is again obvious that by the use of my device the meal need not be placed in bags for the purpose of holding it while being pressed, as the basket M serves this purpose.

35 Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a press for obtaining oil or juices from seed-meal or fruits and other matters to be pressed, the combination, with the power mechanism, of a corrugated and perforated jacket to receive the basket or receptacle containing the meal or other substance to be pressed, as set forth. 40

2. In a press for obtaining oil or juices, the combination, with the power mechanism and receiving-jacket C, of a basket or receptacle 45 for the substance to be pressed, said receptacle consisting of a perforated bottom and perforated and hinged sides, as set forth.

3. In a press, as described, a jacket, C, for holding the meal-basket, said jacket being 50 made in two or more parts detachably secured together and provided with handles H, said parts having corrugations or channels n, as set forth.

4. In a press, as described, the combination, 55 with the perforated basket M, of the perforated plates P, upon which the residual matter is deposited, as set forth.

5. In a power-press for the extraction of oil or juices, the combination, with the power- 60 transmitting mechanism, of the removable perforated and corrugated jacket C, the hinged and perforated basket M, and the perforated plates P, as set forth.

In testimony whereof I affix my signature 65 in presence of two witnesses.

FRANK W. CROSS.

Witnesses:

EMMA M. GILLETT,  
W. H. EDGAR.