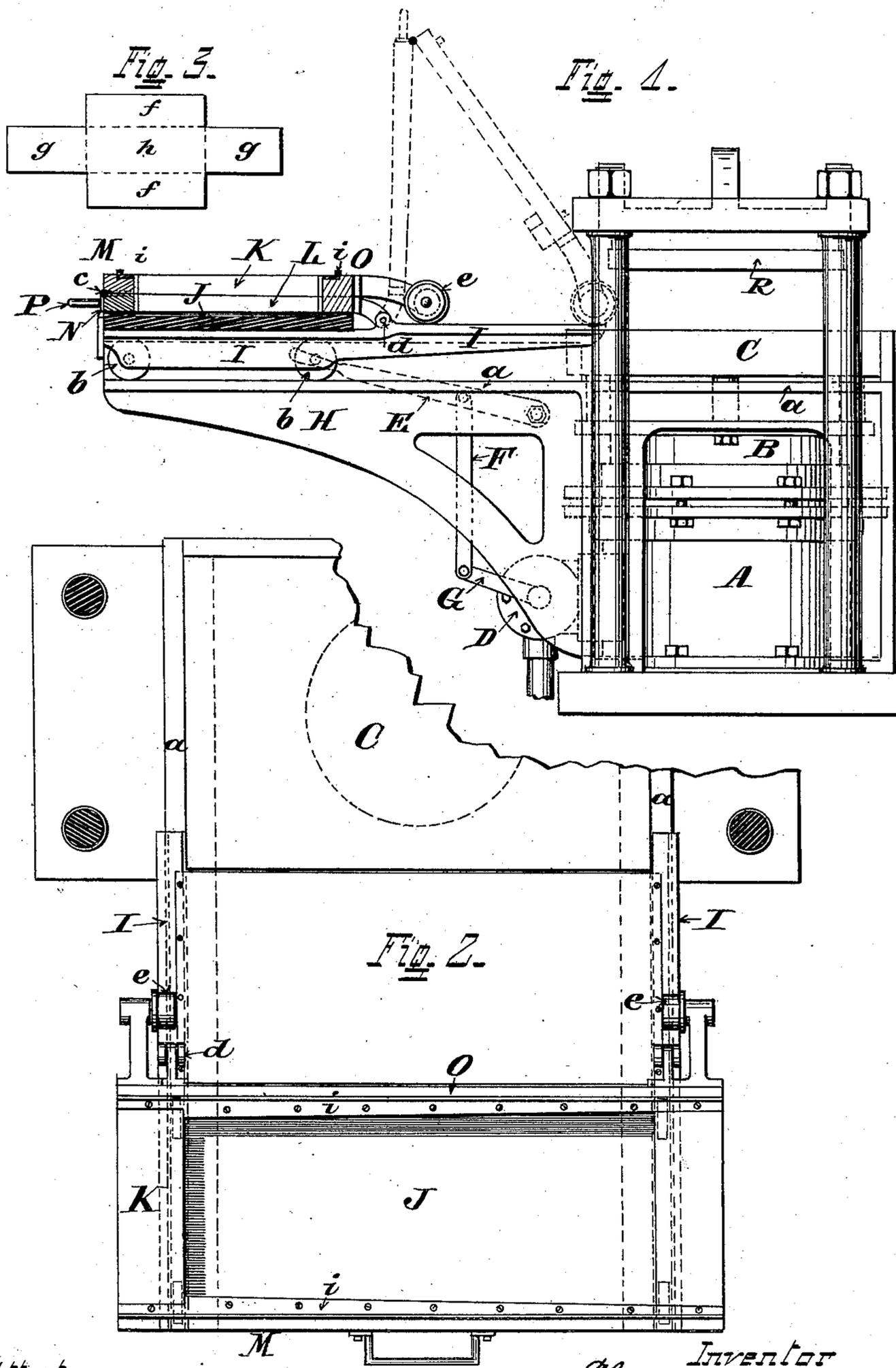


(No Model.)

T. DE ARMON.  
PRESS FOR OIL CAKES.

No. 299,522.

Patented June 3, 1884.



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# UNITED STATES PATENT OFFICE.

THOMAS DE ARMON, OF DAYTON, OHIO.

## PRESS FOR OIL-CAKES.

SPECIFICATION forming part of Letters Patent No. 299,522, dated June 3, 1884.

Application filed April 14, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS DE ARMON, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Presses for Forming Oil-Cakes, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to that class of forming-presses which are used to shape the oil-cake preparatory to its introduction into the press by which the oil is expressed or extracted from the meal, leaving the meal-cake which is afterward sold as an article of commerce.

The novelty of my invention consists in the construction of the meal-box, the combination therewith of the enfolding-cloth, and generally in the details of construction and combinations of the parts, all as will be herewith set forth and specifically claimed.

In the accompanying drawings, Figure 1 is a side elevation of the press, with the meal-box shown in section. Fig. 2 is a plan view of the same, partly in section. Fig. 3 is a diminished view of the cake-enfolding cloth.

The same letters of reference are used to indicate identical parts in all the figures.

The press proper may be of the usual or any suitable construction. In this instance, A is the cylinder, provided with a hollow ram or plunger, B, carrying suitably mounted upon its top a substantially rectangular platen, C. The plunger B is suitably packed within the cylinder A, and is actuated by steam admitted through the cylindrical valve D, which is controlled by the operator by means of the lever E and connecting-links F G.

Extending from the press proper are any suitable lateral brackets, H, on the top of which, and extending between the uprights of the press, are ways or tracks *a*, upon which the meal-box carriage rests and travels. This carriage is composed of the side pieces, I, to which are journaled the wheels *b*, as seen in Fig. 1.

Extending across and secured to the side pieces, I, is the bed-plate J of the meal-box, and to form the side and end walls of this meal-box I employ two pieces, K and L, for

each of the end walls, lying one upon the other, as shown, and hinged together at their front ends, as seen at *c*. The lower pieces, L, of the end walls have extensions beyond the box, which are hinged at *d* to lugs upon the side pieces, I. The upper pieces, K, of the end walls have extensions, to which are journaled rollers *e*, which rest and travel upon the extensions of the side pieces, I. The front walls are composed of two pieces, M and N, secured, respectively, to the pieces K and L, while the rear wall, O, is a single piece secured only to the upper pieces, K, but of sufficient depth to fit between the pieces L and rest upon the bed-plate J.

P is any suitable handle for raising and lowering the walls of the box.

It results from this construction that I have an open-top box whose walls are connected together and rest upon the bed-plate J, without being secured thereto, and which, by means of the handle P or other suitable means, can be lifted from and removed entirely off of and out of the way of the bed-plate J, the parts taking the position shown in Fig. 1, and the rollers *e* traveling upon the extensions I of the carriage. This removal of the walls of the box entirely out of the way is very important, as it enables the meal-enfolding cloth to be quickly spread upon the bed-plate J preparatory to filling the box, and after the cake has been formed by pressure it enables the removal of the same without loss of time and without disturbing its shape.

Hitherto the cloths for enfolding the cake have been only rectangular and only as wide as the cake, and the practice has been merely to fold over their ends, leaving the sides open, from which the meal would exude during the process of expressing the oil. I propose to make my improved cloths of the shape shown in Fig. 3, wherein side flaps, *f*, as well as end flaps, *g*, are provided. The folds occur at the dotted lines, and the central portion, *h*, is just the size of the meal-cake. While this form of cloth is particularly adapted to the meal-box above described, I do not limit myself to its use in such a meal-box alone.

The operation of my improved forming-press is as follows: The walls are raised from the bed-plate J to the position shown by the dotted lines in Fig. 1. The usual tray is placed

upon the bed-plate J and the cloth placed over the same, with the ends hanging down. The walls are now brought upon the bed-plate, and form therewith an open-top box. The filler-box (not here shown) is then passed over the press-box, and may travel upon ways *i*, and leaves the press-box level full of meal. The carriage is then rolled over the platen C in the press and steam is admitted to the cylinder A. The box is thus carried up until the head-block or platen R enters the open top of the box and compresses the contained meal, thereby forming it into an oil-cake, but without expressing the oil. A reverse motion of the valve D cuts off the steam, opens the exhaust, and permits the plunger to descend until, having reached its normal position, the carriage is drawn back out of the press upon the brackets H, the walls of the box are again raised, the flaps of the cloth folded over, and the tray, with the cake thereon, lifted off and carried to the final press, which expresses the oil. This operation can be repeated quickly and without interruption in the formation of successive cakes.

I do not limit myself to the precise manner of constructing and uniting the walls of the box, as this might be done in a variety of ways to attain the same result—to wit, the removal from the bed-plate of the side and end walls, so that they would be entirely out of the way—one other method of accomplishing which might be to have the side and end walls each of a single piece connected together so as to form a substantially rectangular frame, and with extensions from each end wall which might be hinged to the extensions of the side pieces, I, near their rear ends; but in such

construction some means for supporting the walls when raised would have to be employed, which means might consist of hooks or catches upon the top plate of the press.

Having thus fully described my invention, I claim—

1. In a press for forming oil-cakes, the meal-box having removable connected side and end walls, substantially as described.

2. In a press for forming oil-cakes, the meal-box mounted upon a traveling carriage and having sectional side and end walls connected and hinged together and hinged to the carriage, whereby said walls may be lifted from the bottom of the box, substantially as and for the purpose described.

3. In a press for forming oil-cakes, a traveling or sliding meal-box composed of the side pieces, I, mounted on rollers *b*, bed-plate J, end walls, K L, and side walls, M N O, said end walls being hinged to the side pieces, I, and provided with rollers *e*, the parts constructed and united substantially in the manner and for the purpose specified.

4. In a press for forming oil-cakes, the combination, with the meal-box, of the enfolding-cloth having side and end flaps, as and for the purpose described.

5. In a press for forming oil-cakes, the combination, with the meal-box having removable side and end walls, of the enfolding-cloth having side and end flaps, substantially as described.

THOS. DE ARMON.

Witnesses:

THOS. J. WETZEL,  
CHAS. W. DE ARMON.