

(No Model.)

A. ESTRAYER.
OIL PRESS.

No. 480,867.

Patented Aug. 16, 1892.

Fig. 1.

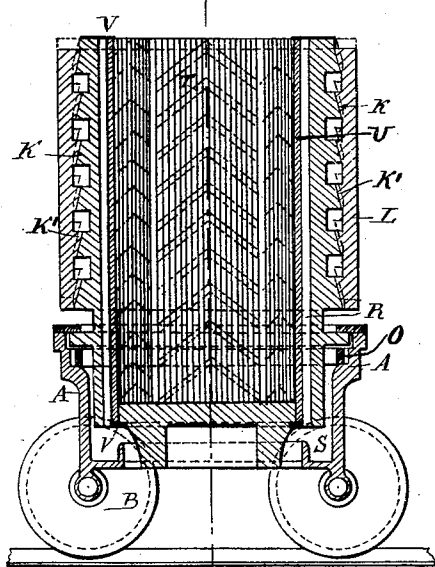


Fig. 2.

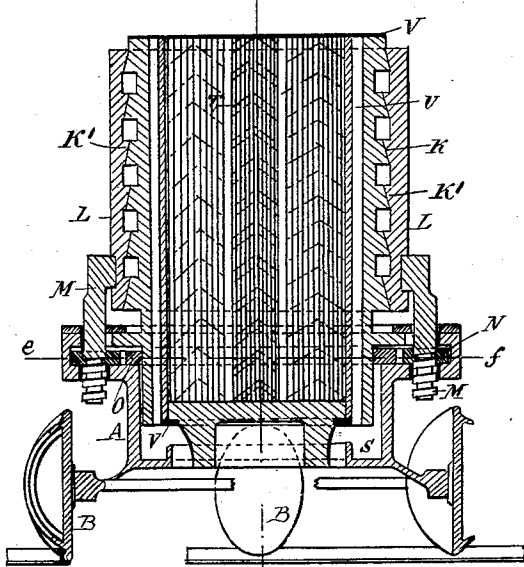


Fig. 3.

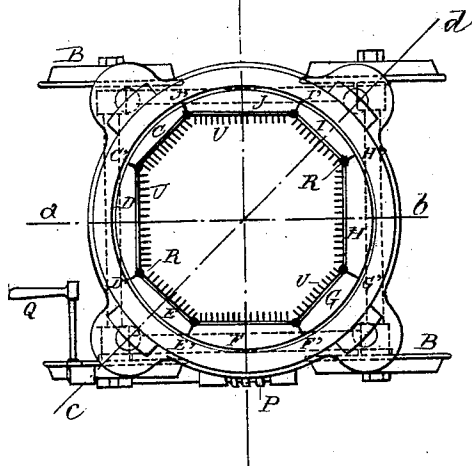
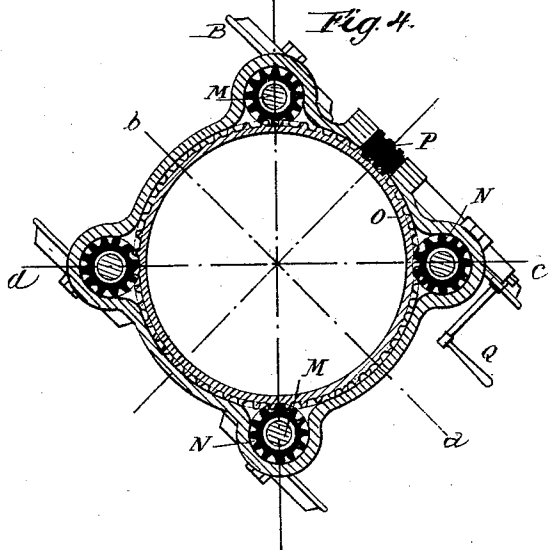


Fig. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

AUGUSTIN ESTRAYER, OF MARSEILLES, FRANCE.

OIL-PRESS.

SPECIFICATION forming part of Letters Patent No. 480,867, dated August 16, 1892.

Application filed September 28, 1891. Serial No. 407,008. (No model.) Patented in France February 22, 1889, No. 196,157.

To all whom it may concern:

Be it known that I, AUGUSTIN ESTRAYER, a citizen of the Republic of France, and a resident of Marseilles, France, have invented certain new and useful Improvements in or Relating to Oil-Presses, (for which I have obtained Letters Patent in France, No. 196,157, dated February 22, 1889,) of which the following is a specification.

My invention relates to oil-presses.

The oil-press frame forming the subject of this invention is represented in the accompanying drawings, Figure 1 being a vertical section on lines *ab* of Figs. 3 and 4; Fig. 2, a similar section on lines *cd* of Figs. 3 and 4; Fig. 3, a plan, and Fig. 4 a horizontal section, on line *ef* of Fig. 2. This frame or cage, the external shape of which is cylindrical, is supported on a base A, carried by four wheels B, adapted to run on rails and enabling the carriage so formed to be readily moved up to the oil-presses.

The internal shape of the cage, as shown in Fig. 3, is octagonal—i. e., having two equal sets of four sides each. It consists of eight pieces of steel C D E F G H I J, the surfaces of which are plane or flat internally and curved externally. These pieces, forming the vertical walls of the cage or frame, may be brought nearer together by means of inclines K, provided externally all around the apparatus. When the movable parts are moved close together, their contiguous surfaces C', D', E', F', G', H', I', and J' so fit each other as to form air-tight joints. These eight parts are surrounded by a cylinder L, also provided with inclines K', fitting against the inclines K, as shown in Figs. 1 and 2. The tightening or loosening of the eight movable parts is effected by raising or lowering this cylindrical casing L, which is provided for this purpose with four screws M, Figs. 2 and 4, fitting four nuts N, having the shape of pinions, and as such operated by a toothed wheel O, which in its turn receives motion from the worm P, operated by means of a crank-handle Q.

This operation is as follows: To extract oil from oil-seed, the first thing to be done is to loosen the parts or sections of the cage by raising the cylinder L, which for this purpose assumes the position indicated in dotted lines

in Fig. 1. This is done in order to remove from between the walls, which are then moved apart, any residue there may be left from the preceding operation and to introduce a fresh batch of material to be pressed. This material is placed upon the plunger of a hydraulic press, arranged to enter the cage from below. When the cage is filled with material, the cylinder L is lowered and by means of the wedges K and K' compresses the movable walls. These are provided at their angles with vertical grooves R, enabling the oil thus extracted to flow down into the reservoir S, from which it is discharged by means of a suitable tap. Besides, to facilitate the flow of the oil as the oil-seed is compressed there are provided in the eight movable walls a number of inclined or sloping channels T, arranged to discharge their contents into the grooves R, situated at the angles. To these channels are applied vertical steel plates U, the upper and lower portions of which are retained in place by means of other plates V. The plates U are set very closely to each other and cover the whole interior of the case or frame.

Instead of raising or lowering the cylinder L by means of a screw, pistons or plungers, cams or eccentrics, or like devices may be employed, and in other ways the invention be modified without departure from its essential features.

I claim—

1. The combination, with the cage or frame, of plates U and of oblique channels T, terminating in vertical grooves R, for facilitating the discharge of the oil.

2. In an oil-press frame or cage, the combination, with the frame or cage consisting of a series of circumferentially-arranged sections adapted to be adjusted toward and from each other, as described, and an incline upon the outer surface of each of said sections, of a casing surrounding the said movable sections and adapted for vertical movement thereupon, inclines upon the inner surfaces of said casing adapted to bear upon the inclines of the frame-sections when the casing is moved, and means for operating the said casing, for the purpose specified.

3. In an oil-press frame or cage, the combination, with a base mounted upon supporting-

wheels, of the frame or cage mounted upon said base, consisting of a series of circumferentially-arranged sections adapted to be adjusted toward and from each other, as described, an incline upon the outer surface of each of said sections, a casing surrounding said movable sections and adapted for vertical movement thereupon, inclines upon the inner surface of said casing, adapted to bear upon the inclines of the frame-sections, and means carried by the base for operating the said casing, for the purpose specified.

4. In an oil-press frame or cage, the combination, with a base mounted upon supporting-wheels, of the frame or cage consisting of a series of circumferentially-arranged sections adapted to be adjusted toward and from each other, as described, an incline upon the outer surface of each of said sections, a casing surrounding said movable sections and adapted for vertical movement thereupon, inclines upon the inner surface of said casing, adapted to bear upon the inclines of the frame-sections, and means carried by the base for operating the said casing, consisting of screws carried by the casing and extending through the base, toothed nuts working upon said screws, a toothed wheel engaging the nuts, a worm engaging said toothed wheel, and a lever for operating said worm, as described.

5. In an oil-press frame or cage, the combination, with a base mounted upon wheels and a reservoir in said base, of the frame or cage mounted upon said base and consisting of a series of circumferentially-arranged sections adapted to be adjusted toward and from each

other, as described, and provided with a series of vertical grooves R, communicating with reservoir S, inclines upon the outer surfaces of said sections, a casing surrounding the latter and adapted for vertical movement thereupon and provided with inclines upon its inner surface adapted to bear upon the inclines of the frame-sections when the casing is moved, and means for operating said casing, for the purpose specified.

6. In an oil-press frame or cage, the combination, with a base mounted upon wheels and a reservoir S in said base, of the frame or cage mounted upon said base and consisting of a series of circumferentially-arranged sections adapted to be adjusted toward and from each other, as described, and provided with a series of vertical grooves R, communicating with reservoir S, inclined channels T in said sections and communicating with the grooves R, inclines upon the outer surfaces of said sections, a casing surrounding the latter and adapted for vertical movement thereupon and provided with inclines upon its inner surface, adapted to bear upon the inclines of the frame-sections when the casing is moved, and means for operating said casing, for the purpose specified.

In testimony whereof I have hereto set my hand in the presence of the two subscribing witnesses.

AUGUSTIN ESTRAYER.

Witnesses:

JULES MOREL,
CHARLES GASCON.