No. 865,749. PATENTED SEPT. 10, 1907.

A. AUSTERLITZ.

FRAME FOR OIL PRESSES.

APPLICATION FILED MAR. 20, 1906.

Fig. 1.

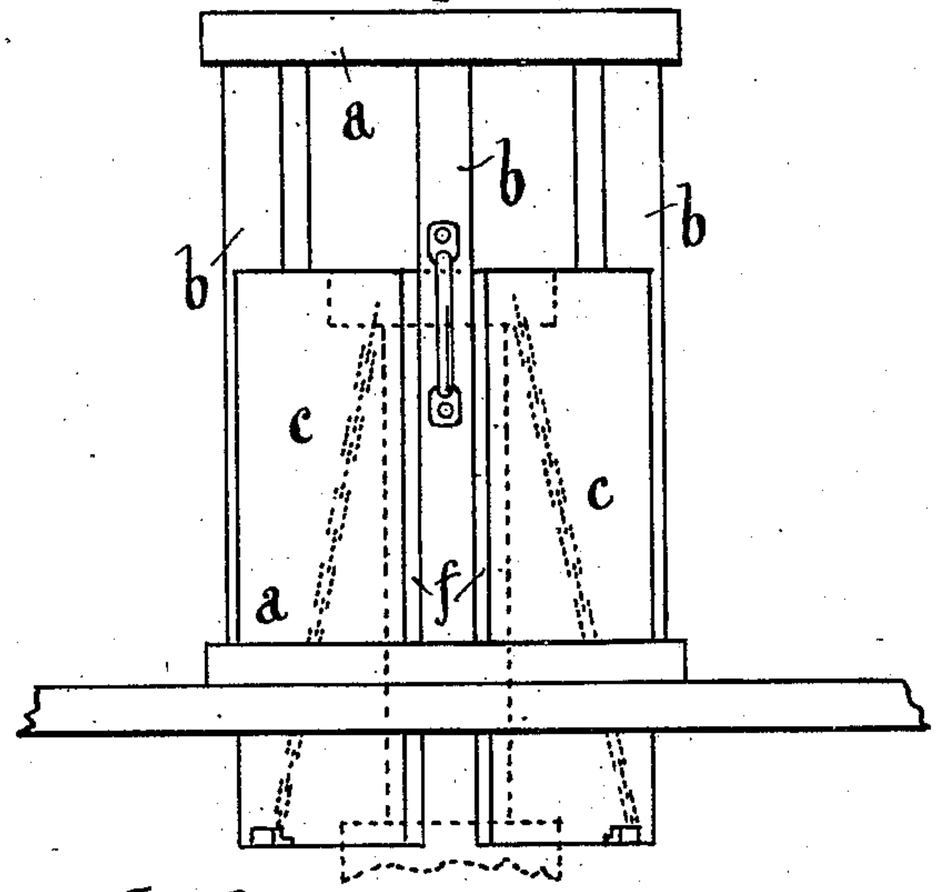
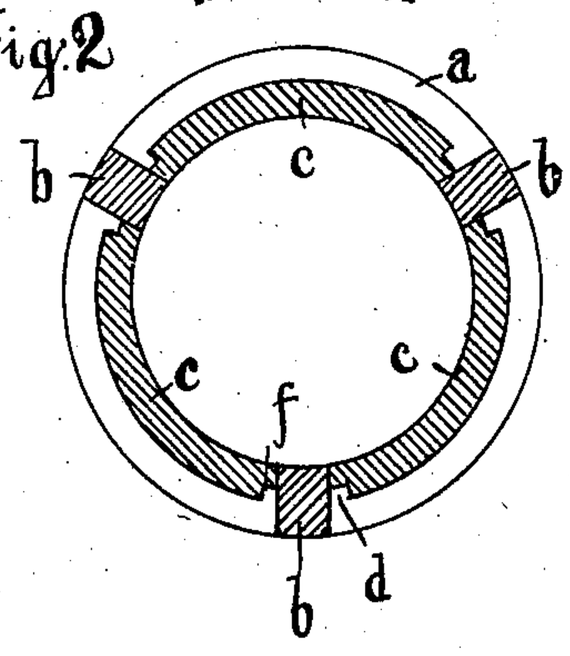


Fig. 2



Witnesses,
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UNITED STATES PATENT OFFICE.

ALEXANDER AUSTERLITZ, OF GYÖR, AUSTRIA-HUNGARY.

FRAME FOR OIL-PRESSES.

No. 865,749. Specification of Letters Patent. Patented Sept. 10, 1907.

Application filed March 20, 1906. Serial No. 307,026.

To all whom it may concern:

Be it known that I, ALEXANDER AUSTERLITZ, a subject of the King of Hungary, residing at Györ, in the Kingdom of Austria-Hungary, have invented a new and useful Improvement in Frames for Oil-Presses, of which the following is a specification.

This invention relates to improvement in the frame of hydraulic oil presses for the production of round cakes. In hydraulic presses for pressing oil from seeds or the like and the production of round oil cake, it has hitherto been usual to make use either of rings in which each cake has been compressed separately, or of vessels, cylinders or the like. In such a construction the principle is adopted of bringing the seed or raw material under pressure in a vessel closed as far as possible, and giving the oil opportunity of escaping through as small openings as possible in the form of slots or holes. This system of closed vessels which are often exposed to extremely high pressure amounting to 300 atmospheres and upwards, involves extremely strong construction of the best materials and causes very great wear of the inner surfaces as well as of the openings for the escape of the oil. It further requires very careful preparation of the seed before filling and notwithstanding gives a poor result, necessitating a second pressing of the seed. Moreover the construction of these receptacles renders them very costly.

The present invention comprises a pressing frame which in contradistinction to the construction above mentioned presses out the seed in round cakes with completely free escape of oil. No side walls prevent the escape thereof. This construction involves a considerably cheaper first outlay, is subject to a minimum wear and nevertheless gives considerably better yield.

Referring to the accompanying drawing: Figure 1 illustrates the pressing frame with half closed shutters in side elevation. Fig. 2 is a horizontal section of Fig. 1.

The oil pressing frame is composed of three supports *b* united above and below by a ring *a*. The supports *b* serve at the same time as the guides for the pressing plates. According to the number and size of the cakes to be pressed, the number of the supports and of the rings may be increased. In smaller constructional forms it is advisable to shut in the pressure space during the filling.

The pressing frame is operated exactly in the same manner as the presses previously in use; but in order to prevent the seed placed therein from scattering sidewise and also to insure that the seed shall be compressed in the usual manner, for the purpose on the one hand of pressing a larger number of cakes and on the other hand giving even to the loose lying seed a firmer consistency, the frame is provided with well fitted side shutters *c* which for the purpose of the filling, convert the skeleton frame into a closed cylindrical chamber. These shutters are constructed according to the size of the frame of more or less strong iron plate, the inner surface whereof is curved to the exact circumference of the pressing frame, and the said shutters are fitted quite tight between the supports. The fixing of these side shutters is effected by means of the rings with projections *d* attached to the supports, which projections engage in corresponding grooves *f* of the shutters. In the case of small frames, the insertion of the shutters is effected by hand from above downwards or they may be inserted sidewise. In the case of large frames the shutters are moved from below upwards by the usual hydraulic apparatus for forcing out the oil cakes, the piston head of which apparatus, while elevating the finished cakes, draws up the shutters (which slide in guiding grooves under the discharge plates or filling table) by means of the chains illustrated in dotted lines in Fig. 1. As soon as the piston and the shutters have reached their terminal point above, the shutters are held fast by a simple catch of any kind, while the piston moves down again. The filling takes place in the ordinary manner. When this has been finished, the shutters are released and descend again by their own weight. The pressing frame is now ready for action and is subjected to pressure.

In mechanism in which the finished pressed cakes are discharged from above downwards, the raising of the shutters by hydraulic pressure is not necessary and can be effected by means of a simple hand lever, or by a mechanism actuated by a belt.

Instead of the sliding shutters *c*, there might also advantageously be applied correspondingly curved doors attached to the supports *b* or to one of the rings *a* and turning on hinges or pivots, which doors could be closed like the shutters during the filling and be open during the pressing.

What I claim is:

1. In combination in an oil press, an open-sided transportable frame open above and below for the passage of the pressure plates and piston during the operation of the press, top and bottom rims in said frame, and vertical guide bars attached to said rims and adapted to prevent lateral motion of the pressure plates.

2. In combination in an oil press frame having open sides the rings *a* the longitudinal guides *b* and movable shutters *c* adapted to inclose the spaces between the guides *b* during the filling of the press.

3. In combination in an oil press frame having open sides the rings *a* the guides *b* and hinged shutters for inclosing the pressure space during the filling of the press.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ALEXANDER AUSTERLITZ.

Witnesses:
ALVESTO S. HOGUE,
AUGUST FUGGER.