(Model.)

C. WOODMAN.

OIL PRESS PLATE.

No. 300,296. Patented June 10, 1884.

Fig. 1

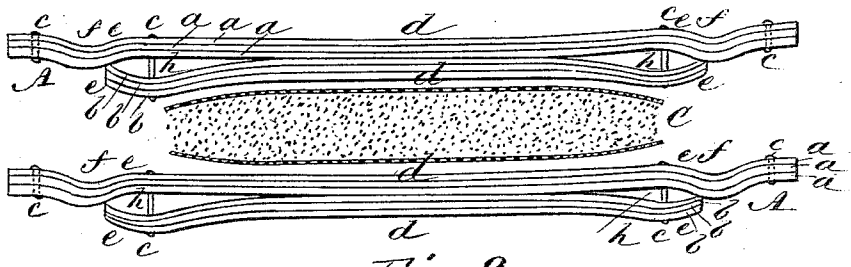


Fig. 2

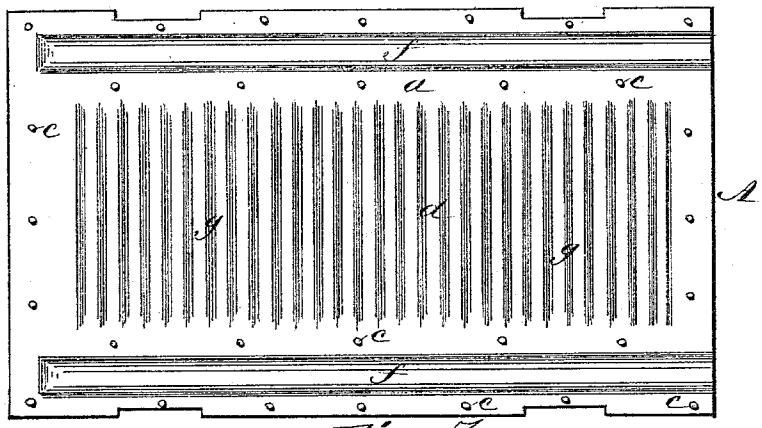
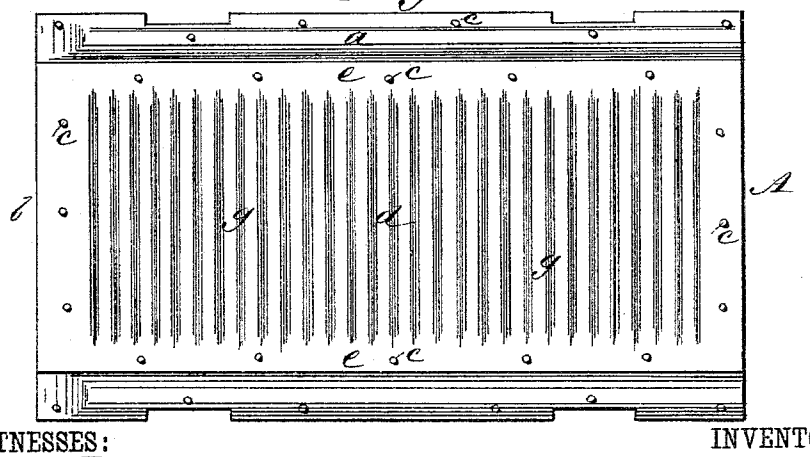


Fig. 3



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UNITED STATES PATENT OFFICE.

CLARK WOODMAN, OF OMAHA, NEBRASKA.

OIL-PRESS PLATE.

SPECIFICATION forming part of Letters Patent No. 300,296, dated June 10, 1884.

Application filed March 11, 1884. (Model.)

To all whom it may concern:

Be it known that I, CLARK WOODMAN, of Omaha, in the county of Douglas and State of Nebraska, have invented a new and Improved Oil-Press Plate, of which the following is a full, clear, and exact description.

This invention relates to plates to be used in hydraulic presses for expressing oil from flaxseed and other oleaginous seeds or substances. The plates heretofore used for this purpose have been made of wrought or cast iron, and had hair or metal mats combined with them or secured to their opposite faces for action on or against the canvas coverings or wrappers containing the ground seed, a series of such hair or metal mat faced plates, having the substances to be compressed between them, being arranged within the press, and the plates proper having gutters for carrying off the oil. Such combined metal and hair or metal mat faced plates are not only bulky, taking up much room in the press, but the hair mats, which are made with thickened outer edges to prevent the meal from squeezing out when the pressure is put on, are lacking in durability, and are otherwise objectionable.

My invention has for its object the dispensing with these hair or metal mat faced plates, and to make the metal plates so that they also constitute or comprise the mats; and my invention consists in a peculiar construction of such oil-press plates, whereby the same may be readily made to retain their proper form to prevent the meal from squeezing out when the pressure is put on, with every provision for escape of the expressed oil, and space is economized in the press, so that a larger number of plates and greater quantity of material to be compressed may be inserted to make up a single charge, a more efficient action is obtained, and an increased durability given to the plates, all as hereinafter fully described, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 represents an end view of a pair of my improved oil-press plates with a package of ground flaxseed or other substance to be compressed partially inclosed in a canvas cover, which is shown in section, placed between them, as said package appears when in the press. Fig. 2 is a plan view of my improved plate, and Fig. 3 is an inverted plan view of the same.

Each plate A is made of or from a series of thin sheet iron or metal plates, *a b*, which may be compressed into shape cold, and after being laid one upon the other are united together by rivets *c*, thereby making a stiff combination plate that can be most advantageously used for oil-pressing purposes, and is durable and occupies a reduced space in the press. These combined plates are shaped to present transversely-concave surfaces *d d* on their opposite exterior faces, leaving thickened or outwardly-protruding sides *e e*, to prevent the meal from squeezing out when the pressure is put on, and virtually forming mats as well as plates. The upper layers or sheets, *a a*, are of greater width than the lower layers or sheets, *b b*, and have the usual gutters, *f f*, arranged in or along their sides for the oil as it is expressed to run off, and the opposite faces of the combined plate are corrugated, as at *g*, for the like purpose, the corrugations of each plate being arranged so that if the plates were placed directly one on top of the other their corrugations would fit one into the other. The spaces *h*, left by the bulging sides of the lower layers of plates, *b*, may, if desired, be filled with melted zinc or other metal.

C indicates the canvas-covered package containing the seed or substance to be compressed for extraction of the oil.

By using these mat-like plates as many as twenty-two cakes can be put into the press where ten to fifteen only with the hair or metal mat faced plates are ordinarily inserted.

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

1. A metallic plate for oil-presses, forming also a mat on its opposite faces, constructed with reverse transversely-concave faces, protruding or bulging sides, and gutters on its upper surface, substantially as specified.

2. A metallic plate for oil-presses, forming also a mat on its opposite faces, constructed of a double series of metal sheets or layers secured together, with the upper series of greater width than the lower series, and both series constructed to present reverse transversely-

concave faces having protruding or bulging sides and gutters on the upper face of the combined plate, essentially as described.

3. A combined metallic plate and mat for oil-presses, consisting of an upper series of metal sheets or layers, *a a*, and a lower series of like sheets or layers, *b b*, of lesser width than the upper series, all riveted together and constructed to present corrugated exterior faces bent to form reverse transverse concaves *d d* and protruding or bulging sides *e e*, with side gutters, *f*, on the upper face of the combined plate, substantially as and for the purposes herein set forth.

CLARK WOODMAN.

Witnesses:
FRANK. E. RITCHIE,
E. E. ZIMMERMAN.