

(No Model.)

J. H. SMALL.
Press Plate for Oil Presses.

No. 237,779.

Patented Feb. 15, 1881.

Fig. 1.

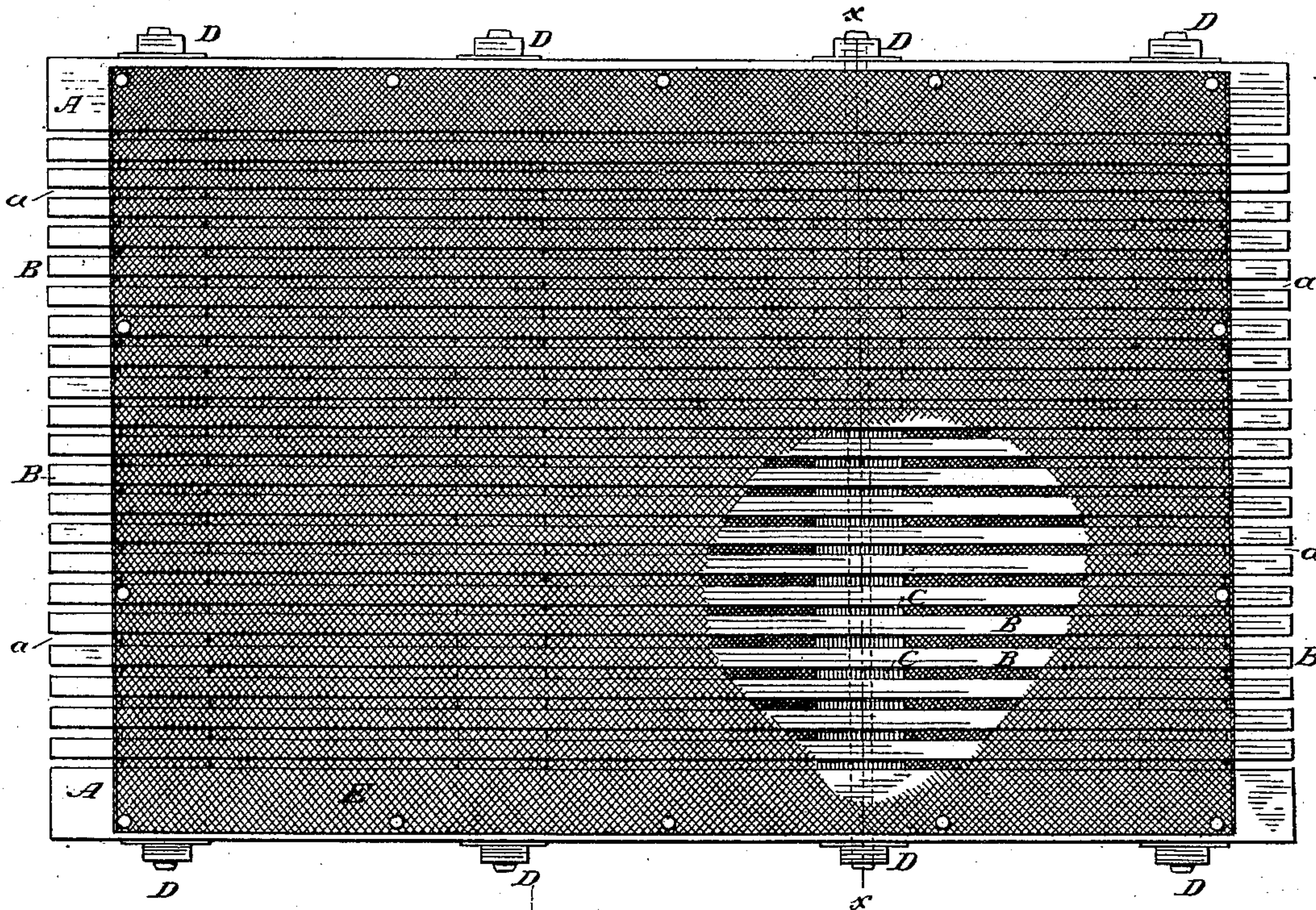
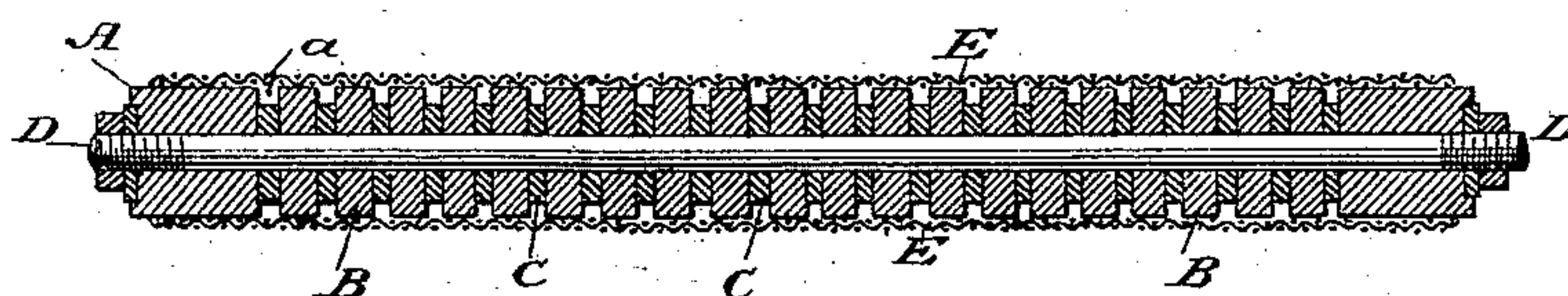


Fig. 2.



Attest:

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UNITED STATES PATENT OFFICE.

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PRESS-PLATE FOR OIL-PRESSES.

SPECIFICATION forming part of Letters Patent No. 237,779, dated February 15, 1881.

Application filed December 28, 1880. (No model.)

To all whom it may concern:

Be it known that I, JACOB H. SMALL, a citizen of the United States, residing at Baltimore, in the county of Baltimore and State of Maryland, have invented certain new and useful Improvements in Press-Plates for Oil-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, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

This invention relates to the press plates or mats interposed between the bags of crushed seed in oil-presses.

In oil-presses now generally used the bags of crushed seed or meal are arranged in a vertical series between the bed and the follower, and a series of press plates or mats are interposed between the bags to aid in compressing the same and facilitate the outflow of oil. Heretofore solid plates have been used provided with grooves on the upper side, which receive the oil from the bag above the plate, but afford no outlet for the oil of the bag below the plate. Woven mats of various forms have also been used; but they are objectionable, as they absorb more or less of the oil and are liable to become clogged.

The principal object of this invention is to provide a plate which will receive and freely discharge the oil from the bags on both its upper and under sides. With such a plate the oil is more quickly expressed and less power is required to operate the press.

Figure 1 of the drawings is a plan view of this improved press-plate, with a portion of the upper gauze covering broken away. Fig. 2 is a transverse section on line *xx* of Fig. 1. Fig. 3 represents one of the washers used to separate the slats.

The body of the plate is composed of the side rails, A A, a series of parallel slats, B, and a series of washers, C, interposed between the slats, all held firmly together by means of metallic clamping-rods D, passing through holes in the rails, slats, and washers. As thus constructed, a series of longitudinal openings, *a*, are formed between the slats, which constitute channels for the escape of the oil expressed from the bags in contact with the plate.

The side rails, A A, may be composed of hard wood or metal, and one inch square, more

or less, in cross-section. The slats B are also of hard wood or metal, one-quarter by one inch, more or less, in cross-section, and set edgewise in the plate. The washers C are of iron, about one-quarter of an inch in thickness, and of less breadth than the slats, so as to leave a space between the surface of the plate and the washer for the flow of oil. The corners of the washers may be rounded, if desired, to enable the oil to pass the same more readily.

The plate is provided on both sides with wire-gauze coverings E E. These coverings prevent the bags from pressing into the channels, afford openings between the bags and slats for the lateral flow of oil, and render the entire surface of the plate active against the bags.

The plate thus constructed will receive and conduct oil from the top of the bag below it as well as from the bottom of the bag above it, and the oil will be expressed from the bags more quickly and with less expenditure of power than in the case of those plates with solid bodies, which force all the oil to the plate below the bag. Moreover, the open channels afford a free outlet for the oil, and are not liable to become clogged. The plate is strong and durable, and may be readily taken apart.

What is claimed as the invention is—

1. The combination, in a press-plate, of a series of slats and a series of washers interposed between the slats and separating the same, the whole being united by means of clamping-rods, substantially as described.

2. A press-plate covered on one side with wire-gauze and having a series of open channels entirely through the plate, substantially as described.

3. A press-plate covered on both sides with wire-gauze and having a series of open channels entirely through the plate, substantially as described.

4. A press-plate composed of a series of slats, a series of washers interposed between the slats, clamping-bolts uniting said parts, and wire-gauze coverings, substantially as described.

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

JACOB H. SMALL.

Witnesses:

THOMAS TANSLEY, Jr.,
JOHN J. CAREY.