(No Modei.)

W. C. LEET.

FRUIT PRESS.

No. 548,166. Patented Oct. 15, 1895.

Fig. 1.

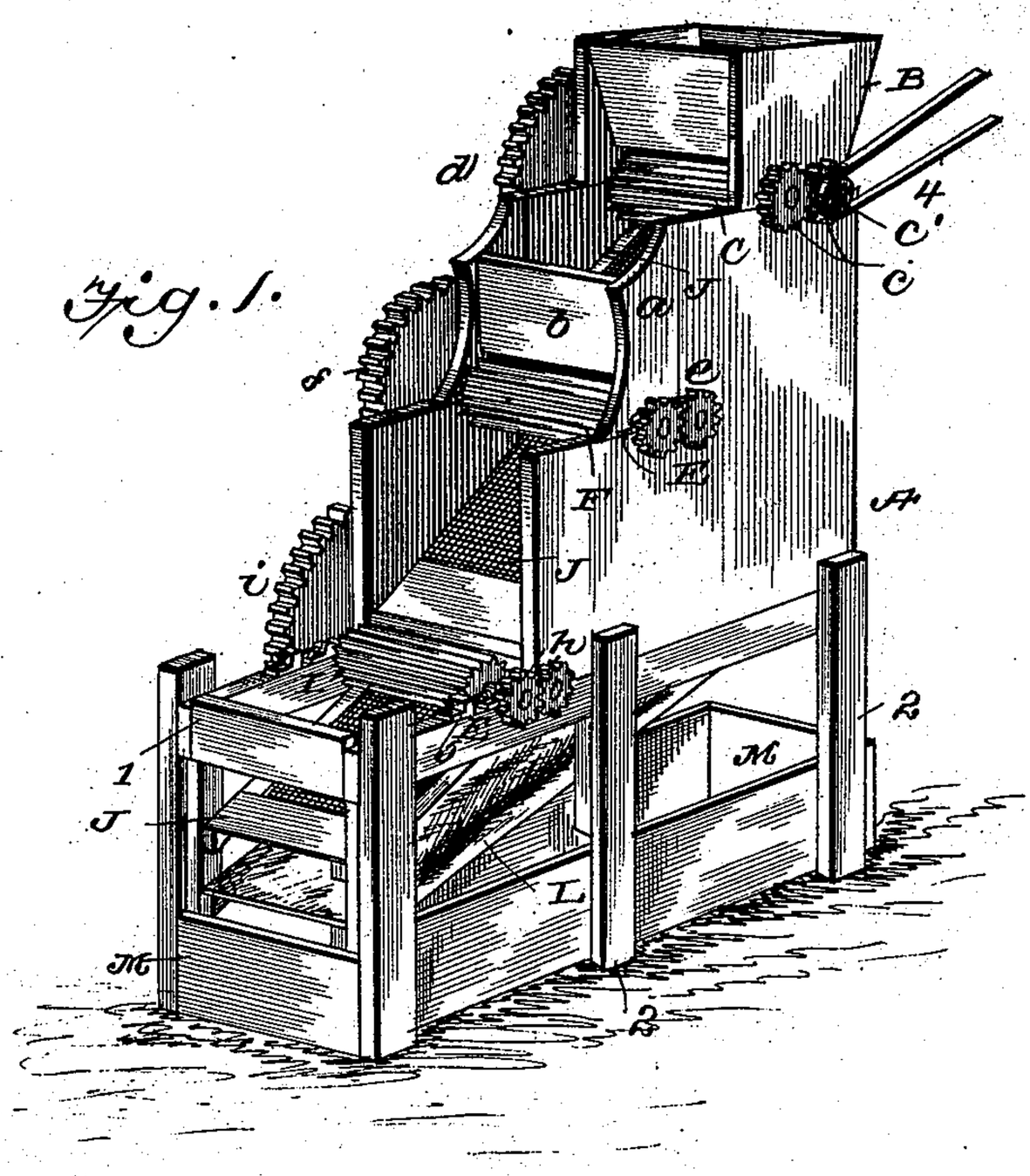


Fig. 3.

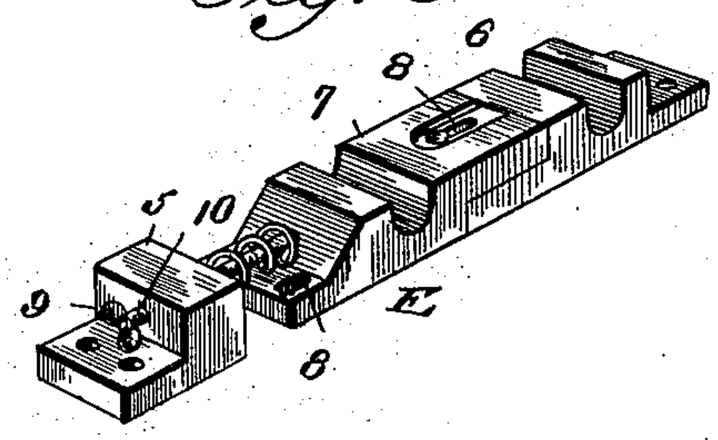
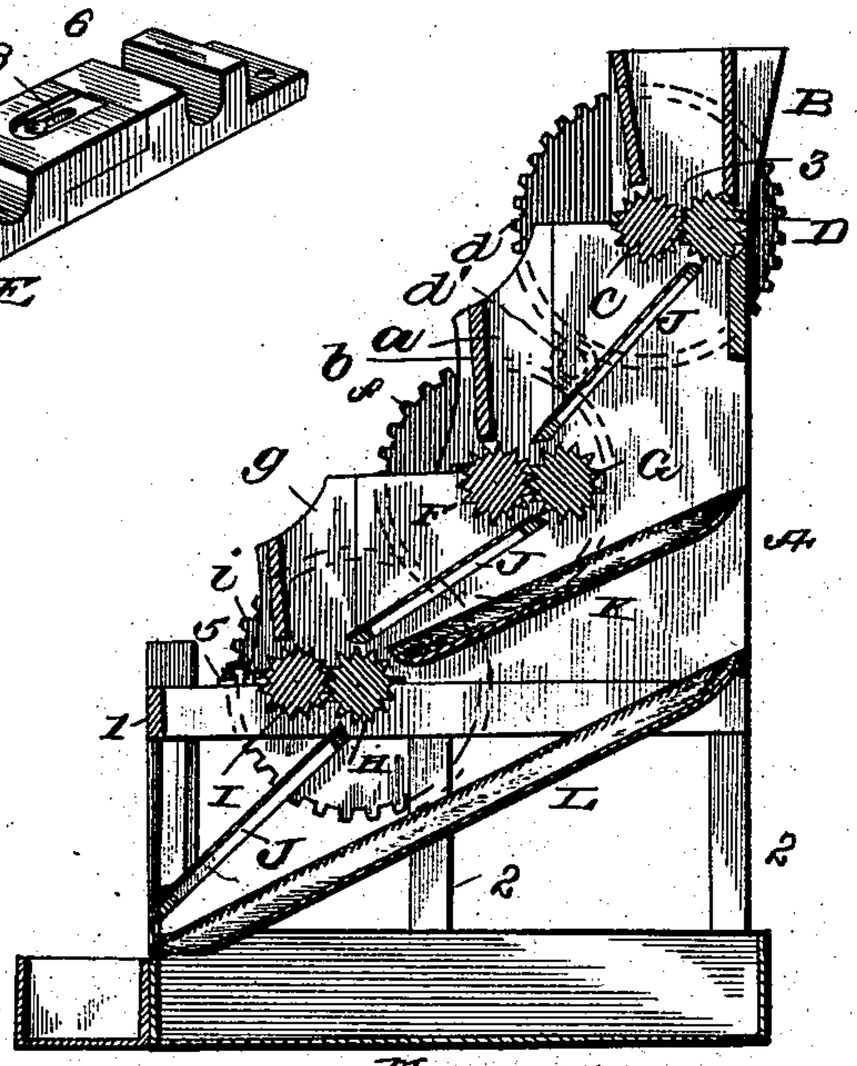


Fig. 2.



Witnesses

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WILLIAM C. LEET, OF WASHINGTON, PENNSYLVANIA.

FRUIT-PRESS.

SPECIFICATION forming part of Letters Patent No. 548,166, dated October 15, 1895.

Application filed June 26, 1895. Serial No. 554,677. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM C. LEET, a citizen of the United States, residing at Washington, in the county of Washington and State of Pennsylvania, have invented a new and useful Fruit-Crusher, of which the following is a specification.

My invention relates to an improved fruit crusher or press; and it has for one of its objects the production of a press in which the fruit is subjected to the action of successive crushing-rollers and the juices obtained from the fruit passed through a series of sieves, by which I am enabled to increase the amount of juices obtained from a given amount of fruit, and also to obtain a clearer purer article when ready for use.

Another object of my invention is to construct a press simple, light, durable, and compact, permitting it to be easily and conveniently handled to move it from place to place, and also to permit it to be used where the ordinary crusher would be of doubtful utility, owing to lack of space.

The invention will first be described in connection with the accompanying drawings, and then pointed out in the claim.

Figure 1 is a perspective view of a press constructed in accordance with my invention. Fig. 2 is a vertical central section of the press. Fig. 3 is a perspective view of one of the adjustable journal-plates.

Referring to the drawings, A are the side pieces of the frame of the press, these pieces being connected by cross-pieces 1 and supported by legs 2. On the upper end of these side pieces is secured a hopper B, having an opening 3 in its bottom. Directly beneath this opening, mounted in a pair of adjustable journal-plates hereinafter described, is a pair of crushing-rollers C and D, these rollers, on one side of the crusher, being each provided with a pinion *c*, these pinions meshing with each other and causing the rollers to turn in opposite directions, roller D being also provided alongside its pinion with a band-pulley *c'*, over which passes a belt 4, leading from any suitable source of power. On the other end of roller C is secured a large gear-wheel *d*, which meshes with a small pinion *d'*, secured to the frame of the press.

E represents an adjustable journal-plate, of which there is one on each side for each pair of crushing-rollers. This journal-plate consists of two end pieces 5 and 6, secured to the frame A, as shown, the end piece 6 being provided with a journal-bearing for roller D. A sliding piece 7 is placed between these end pieces and is secured to the frame and to the end piece 6 by screws passing through slotted openings 8, thus permitting longitudinal movement of piece 7. A thumb-screw 9, passed through an interiorly screw-threaded opening 10 in end piece 5, enables the operator to control this longitudinal movement of piece 7 and to adjust the rollers as desired, a coil-spring secured to piece 5 and sliding piece 7 and encircling the thumb-screw serving to further assist the longitudinal movement of piece 7. In this sliding piece 7 is another journal-bearing for roller C. It will thus be seen that the various sets of crushing-rollers can be adjusted to crush fruits of various sizes, it being understood that the longitudinal movement of piece 7 is within the range of the toothed pinions and gear-wheels.

Below and forward of the rollers C and D there is secured to the frame of the press an auxiliary frame *a*, having an inclined wall *b*, and beneath this wall is mounted another pair of crushing-rollers F and G, these rollers being likewise provided with meshing pinions *e*, a large gear-wheel *f* being mounted on the other end of roller F, this gear-wheel meshing with the pinion *d'*, by which motion is transmitted to the second pair of crushing-rollers. Another auxiliary frame *g*, similar to frame *a*, is secured to the side pieces A below and forward of the frame *a*. Beneath this frame *g* is mounted another pair of crushing-rollers H and I, each provided on one end with a pinion *h*, meshing with each other, the other end of roller H having a large gear-wheel *i*, which meshes with gear-wheel *f* and transmits motion to the third pair of crushing-rollers. Beneath the first or upper pair of crushing-rollers is an inclined way J, whose lower end lies directly above the second pair of rollers, as shown, similar ways J being located beneath the second and third pair of crushing-rollers, respectively, the lower end of the way beneath the third pair of rollers leading into a vessel for the reception of the crushed fruit. These ways for a portion of

their length are perforated, the remainder being solid, as shown.

Near the bottom of the crusher, secured to the sides A, are two strainers or sieves K and L, the former being located above the latter and extending under the first and second pair of rollers only, while sieve L extends beneath all three pairs of rollers.

M represents a vessel placed beneath sieve L and extending the entire width and length of the press, this vessel being adapted to receive the juices crushed from the fruit.

The operation of my press is as follows: The belt being connected to any suitable source of power, it is evident from the above description that motion in the proper direction will be transmitted to the successive pairs of crushing-rollers. Fruit is then placed in the upper hopper, and passing between the first pair of crushing-rollers, some of the juices are extracted, which juices now pass through the perforated portion of the first inclined way J, the solid portion of the fruit passing down this way to the second pair of rollers, through which it passes, the inclined wall *b* serving to prevent the fruit from going too far. This operation is repeated through the successive pairs of rollers until the fruit has been discharged from the last pair, by which time the juices will have been wholly extracted. By the location of the sieves K and L the juices obtained are compelled to pass through these sieves, by which a clear pure article is discharged into the vessel M.

It is evident from the above construction that my press is light and can be conveniently handled, and from its compact form will take up but little space, thus enabling it to be used in the kitchen or other similar place where the ordinary cumbersome crusher would be of little utility.

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

In a fruit-press, a framework, hoppers located on the framework, a pair of crushing-rollers adjustably mounted beneath each hopper, no two pairs of which are in the same horizontal or vertical plane, inclined ways beneath each pair of rollers, each of said ways being solid for a portion of its length and the remainder perforated, an upper sieve located beneath the first and second pairs of rollers, a lower sieve beneath the upper sieve and extending beneath all three pairs of rollers, and a receptacle for receiving the juices, whereby the fruit is passed between the first set of rollers, down the inclined way to the second pair, and so on, the juice, during the passage of the fruit down the inclined ways, passing through the perforated portions of the latter, and through the sieves beneath to the receptacle, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

WILLIAM C. LEET.

Witnesses:
DAVID STERRETT,
J. C. EWING.