(No Model.)

G. L. ORT.

CIDER PRESS.

No. 562,969. Patented June 30, 1896.

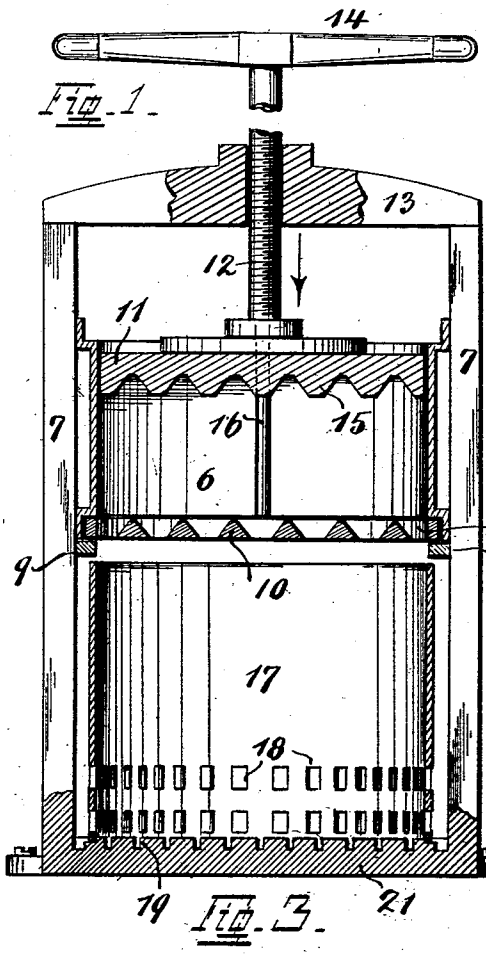


Fig. 1.

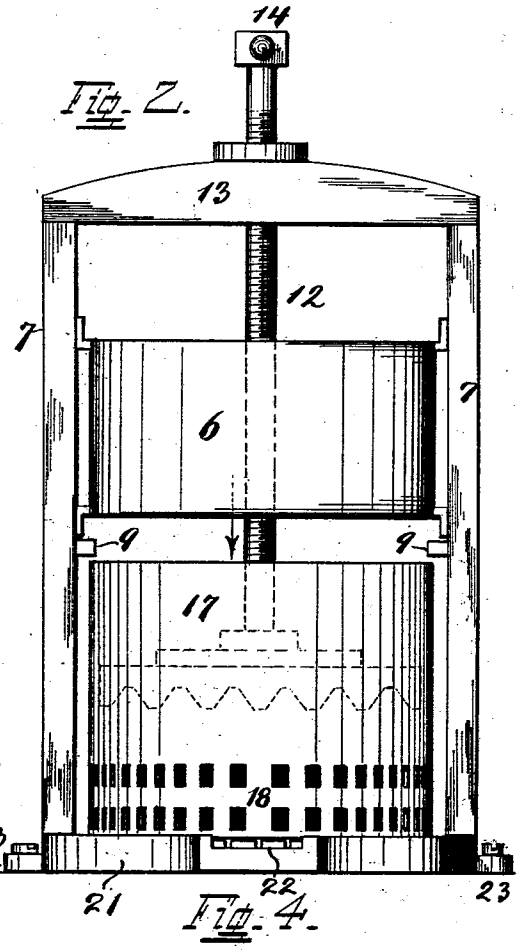
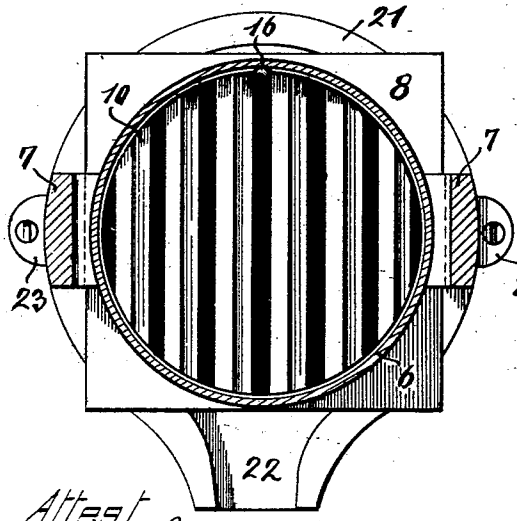
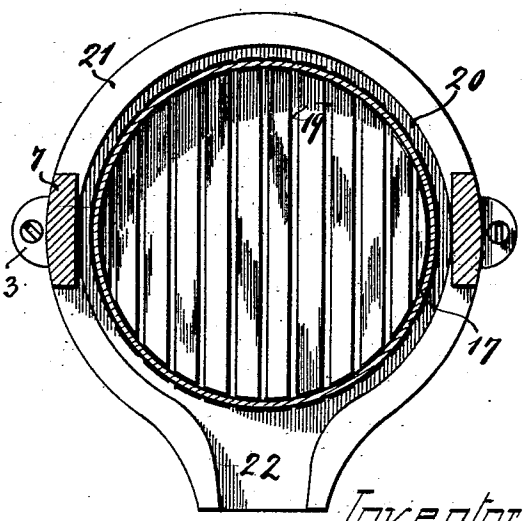


Fig. 2.

Fig. 3.

Fig. 4.





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UNITED STATES PATENT OFFICE.

GRANVILLE L. ORT, OF HOME CITY, OHIO.

CIDER-PRESS.

SPECIFICATION forming part of Letters Patent No. 562,969, dated June 30, 1896.

Application filed March 18, 1896. Serial No. 583,667. (No model.)

To all whom it may concern:

Be it known that I, GRANVILLE L. ORT, a citizen of the United States, and a resident of Home City, Hamilton county, State of Ohio, have invented certain new and useful Improvements in Cider-Presses; and I do declare the following to be a clear, full, 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, attention being called to the accompanying drawings, with the reference-numerals marked thereon, which form a part of the specification.

This invention relates to improvements in presses to be used for the extraction by pressure of vegetable-juices from various fruits.

More particularly it relates to a press for the purpose of manufacturing cider out of apples.

The leading feature of this invention is a preliminary receiver above the body of the press, within which the apples are crushed and broken prior to being subjected to the action of the press and for the purpose of obtaining a more complete extraction of the juices. No extra handling of the pulp is required and the same passes from this receiver directly into the press.

Other parts of this invention relate to features of construction in general as well as in detail, and particularly to the lower part or bottom of the press, where the extracted juice drains out.

In the following specification and particularly pointed out in the claims is found a full description of the invention, its operation, parts, and construction, which latter is also illustrated in the accompanying drawings, in which—

Figure 1 is a vertical section of the device complete. Fig. 2 is a vertical elevation of the same. Fig. 3 is a horizontal section through the preliminary receiver, and Fig. 4 is a similar section through the body of the press.

As shown in the drawings, the press is designed and proportioned more to satisfy use in a limited way—as, for instance, for family purposes—rather than for manufacture on an extensive scale.

6 is the preliminary receiver secured to and supported in a suitable manner on the standards 7 7 of the press-frame. The bottom 8 of this receiver is removable and rests on lugs 9, projecting inwardly at even height from standards 7 7. It is also perforated and for such purpose formed preferably in shape of a grate with triangular bars 10, with one of the sharp angles projecting upwardly.

11 is the press-head of a size to fit inside the receiver 6 and carried on the lower end of a screw 12. This screw is seated in the cross-head 13, which is supported by standards 7 7, and operated in a suitable way, as, for instance, by a lever 14.

The press-head is sufficiently elevated at the beginning of operations to permit receiver 6 to be charged, after which it is started downwardly, as shown in Fig. 1.

The fruit or apples while being forced against the bars 10 are broken as well as crushed while being pushed through the spaces between them. The under side of the press-head is shaped, as shown, with projections 15, which fit into the spaces between bars 10, so that as the former approaches bottom 8 the contents of receiver 6 may be completely discharged. To prevent this press-head from turning and to cause it to move down straight to enable the projections on its under side to enter the spaces between bars 10, a vertical rib 16 is provided, which fits into a notch cut in the side of the press-head and on which rib the latter travels down.

The crushed mass after being forced out of receiver 6 drops into the press-body 17 immediately below, and after sufficient of it has been received in the latter, bottom 8 is removed and the operation of the screw is continued downwardly, as shown in dotted lines in Fig. 2. This part of the operation is substantially the same as in other presses for similar purposes. The extracted juice drains from openings 18 in the side of the press-body, as well as from grooves 19 in the bottom thereof, into an annular gutter 20, which surrounds the press-body, and, like grooves 19, is formed in the upper surface of base 21 of the press. At one side a suitable outlet 22 is provided, from which the juice may drip into a receiving vessel placed below.

The press-body is held in position by the

upper surface of base 21, part of which is higher and fitted into said body. Lugs 23 are provided on the outside of base 21 to permit attachment of the press in a fixed position.

The material is preferably cast metal for all parts, or sheet metal for receiver 6 and body 17.

Having described my invention, I claim as new—

1. In a press for the purpose described, the combination with the press-body 17, of the preliminary receiver superposed above the latter and centrally in line therewith with a removable bottom between the two, and a press-head adapted to be passed through the two after said bottom is removed.

2. In a press for the purpose described, the combination with the press-body 17 of the preliminary receiver superposed above the latter, a removable perforated bottom 8 between the two and a press-head adapted to be passed through both the preliminary receiver and the press-body after the perforated bottom 8 is removed.

3. In a press for the purpose described, the combination with the press-body 17 of the preliminary receiver superposed above the latter, a removable bottom 8 supported between the two, being formed of triangular bars 10 with spaces between and a press-head adapted to be passed through between the two after removal of bottom 8 and having projections 15 on its under side which fit into the spaces between bars 10 for the purpose described.

4. In a press for the purpose described, the combination of a press-frame consisting of base 21, standards 7 7 and cross-head 13, a press-body resting on base 21, a preliminary receiver 6 supported above the press-body and secured to standards 7 7, a removable perforated bottom 8 below receiver 6, lugs 9 projecting inwardly from each standard on which bottom 8 is supported, a press-head adapted to be passed through the two after removal of bottom 8 and a screw 12 which carries the press-head and is mounted in cross-head 13.

5. In a press for the purpose described, the combination of a press-frame supported on a base 21, a press-body 17 resting thereon, a preliminary receiver superposed above the latter and centrally in line therewith and with a removable bottom between the two, a press-head adapted to be passed through the two after said bottom is removed, there being grooves 19 in the upper surface of that part of base 21 which is covered by the press-body and an annular gutter 20 in base 21 surrounding the press-body and into which all grooves 19 open.

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

GRANVILLE L. ORT.

Witnesses:

C. SPENGEL,

ARTHUR S. KLINE.