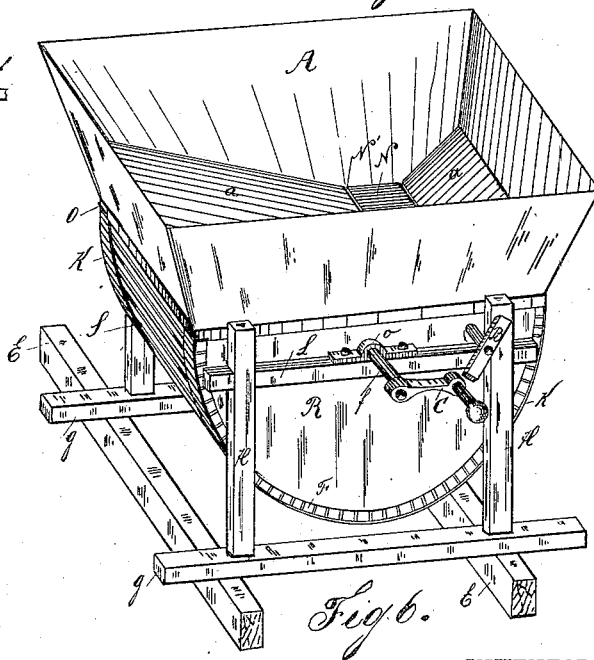
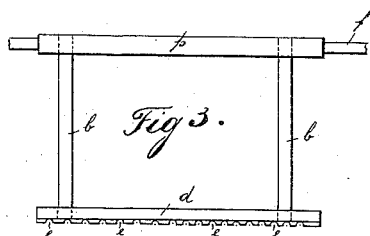
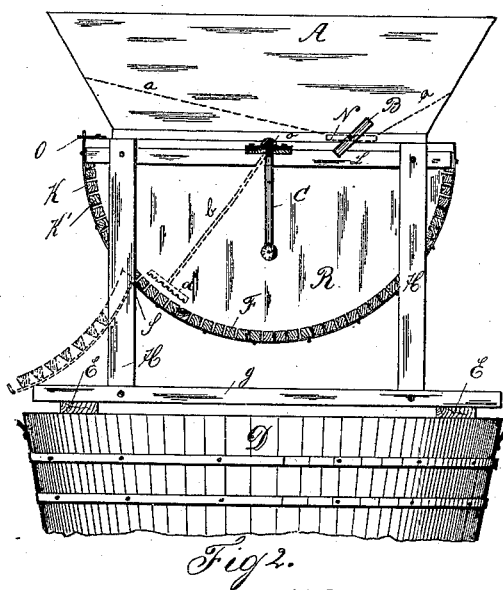
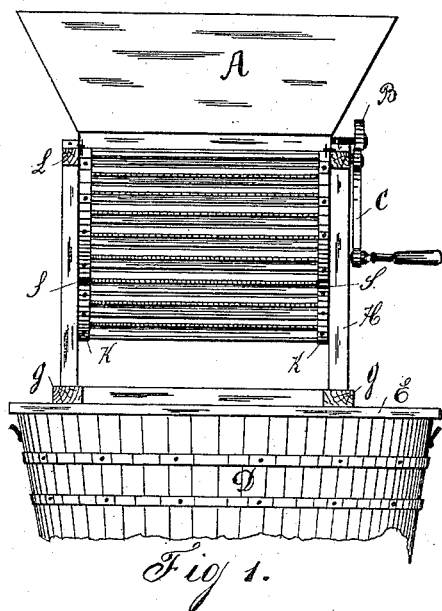


(No Model.)

J. B. KLUMPP.
GRAPE CRUSHING MACHINE.

No. 307,470.

Patented Nov. 4, 1884.



WITNESSES:

Charles Weber
J. B. Burger

INVENTOR,

J. B. Klumpp
BY *J. C. Higdon*

ATTORNEY.

UNITED STATES PATENT OFFICE.

JAKOB B. KLUMPP, OF KANSAS CITY, MISSOURI, ASSIGNOR OF ONE-HALF TO
WILLIAM E. T. MAERZ, OF SAME PLACE.

GRAPE-CRUSHING MACHINE.

SPECIFICATION forming part of Letters Patent No. 307,470, dated November 4, 1884.

Application filed September 15, 1884. (No model.)

To all whom it may concern:

Be it known that I, JAKOB B. KLUMPP, of Kansas City, Jackson county, Missouri, have invented a new and useful Machine for Crushing Grapes, of which the following is a full, clear, and exact description.

The object of my invention is to provide a grape-crushing machine of such construction that the body of the grapes, after thorough maceration, will be immediately separated from the exhausted waste portions thereof, and to provide improved means whereby the latter may be expeditiously expelled from the crushing-chamber.

My invention consists of a semi-cylindrical crushing-chamber composed of a pair of semi-circular end pieces or heads, to the circular edges of which are attached, in a slightly-separated position to form a porous bottom, square-ended strips, V-shaped in cross-section, the said chamber being provided with a suitable supporting-frame, across the upper portion of which is journaled a pendent agitator having a serrated crushing-head that is adapted to be oscillated within the said chamber, and in close contiguity to the circular bottom thereof. A feeding-hopper of sufficient capacity is placed directly over the crushing-chamber, and the uncrushed fruit is supplied to the crushing devices through an opening controlled by an oscillating plate or valve that is pivoted therein across the framing of the machine.

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

Figure 1 is an end view of the machine. Fig. 2 is a side elevation of the same. Fig. 3 exhibits the agitator detached from the machine. Fig. 4 is a longitudinal elevation of a portion of one of the strips or staves composing the crushing-chamber. Fig. 5 shows a series of the same in cross-section, and Fig. 6 is a perspective view of the machine.

The feeding-hopper A, having inclined bottom pieces, *a*, is placed directly above the crushing-chamber R, which is supported by the vertical posts H of the frame, which are

attached to the ends thereof. Across the upper horizontal bars, L, of the said framing is journaled in bearings *o* the shaft *p* of the pendent agitator frame-pieces *b*, which carry upon their lower extremities the crushing-piece *d*. This latter is provided upon its outer surface with the serrations *e*, so that the skins of the grapes may be more easily ruptured thereby, and having a radial movement corresponding to the internal diameter of the chamber R, it is therefore adapted to be oscillated therein in close contiguity to the circular bottom thereof. The bottom of the chamber R is formed of the strips F, the sides P of which are chamfered from their inner edge outwardly, only leaving a sufficient portion square at the end for attachment to the heads of the chamber R, against the edge of which they are securely clamped by the hooks K. The door-section K' is provided with hinges at S, and may be opened downwardly, as shown by the dotted lines, for clearing out the refuse matter from the chamber R. By oscillating the agitator *b d* several times by means of the hand-crank C, which is fixed upon the outer end, *f*, of the agitator-shaft *p*, the clearing operation will be effectively accomplished. The feed-opening N', through which the grapes pass from the hopper A to the chamber R, has the oscillating plate N pivoted within the opening, and provided with the handle B, by means of which it may be graduated from time to time, as required. It is preferable that the bed-pieces *g* of the machine be set upon a tub or vat, D, in order that none of the valuable product, as it issues from the interstices between the strips F, will be lost. Timbers E, placed upon the tub, allow one of comparatively large size to be used with a correspondingly small machine.

By providing suitable gearing the machine may be run by horse or other power.

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

1. In a machine for crushing grapes, the combination, with the crushing-chamber, formed substantially as described, of a pendent crushing-head that is adapted to be oscillated therein in close contiguity to the circular bottom thereof, substantially as set forth.

2. The combination of the semi-cylindrical crushing-chamber having the intersticed bottom, the pendent agitator having a radial movement corresponding to the internal diameter thereof, and the feeding-hopper situated
5 above and having an opening into the said chamber that is provided with a pivoted plate for controlling the admission of the grapes

thereto, substantially as and for the purposes set forth. 10

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

JAKOB B. KLUMPP.

Witnesses:

HENRY D. ASHLEY,

OTTO BECKENBACH.