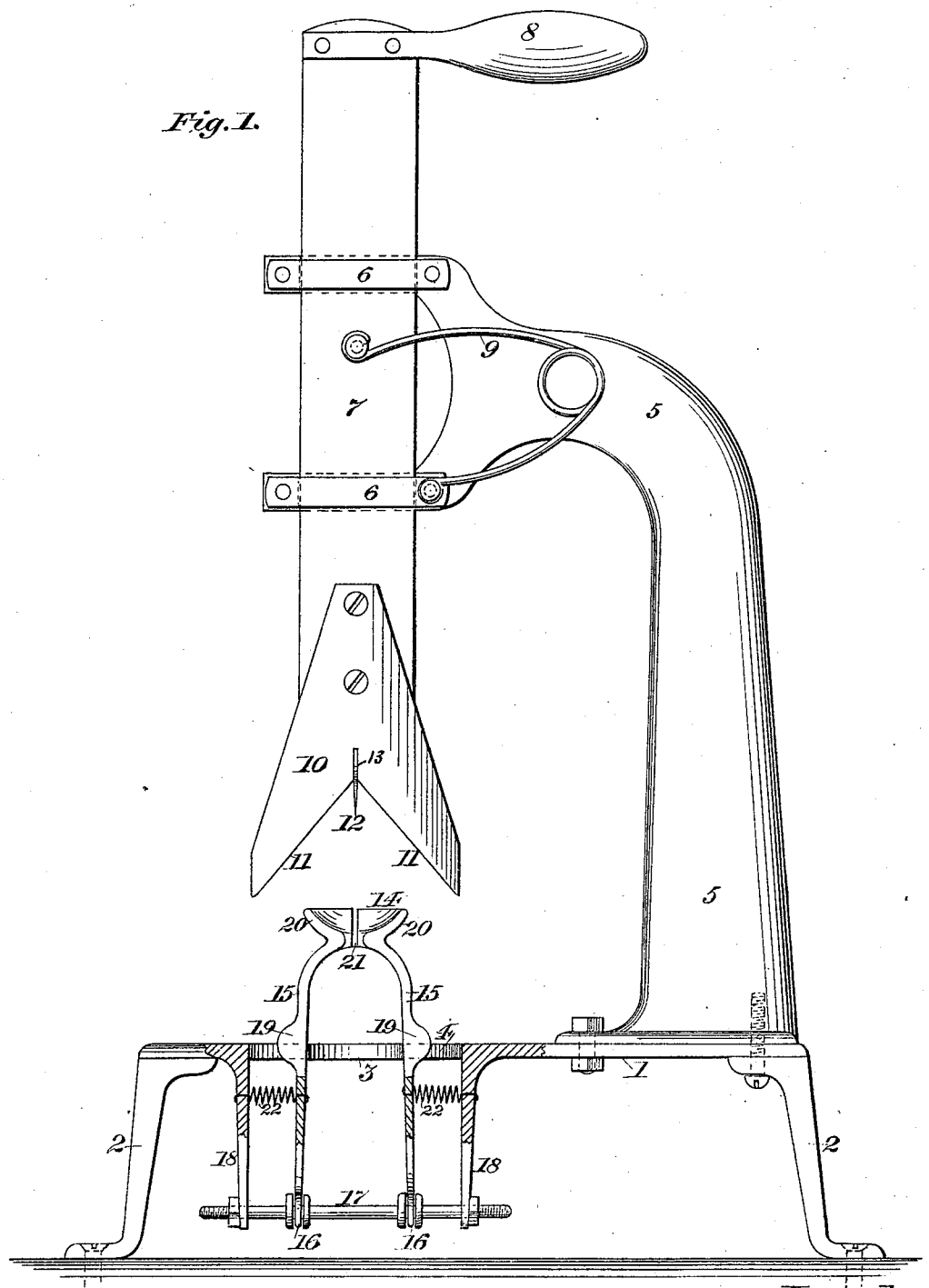
(No Model.) 2 Sheets—Sheet 1.

A. A. KENT.

MACHINE FOR PITTING FRUIT.

No. 420,806. Patented Feb. 4, 1890.

Fig. 1.



Witnesses:
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Chas. F. Gerry

Inventor:
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his Attorneys.

(No Model.) 2 Sheets—Sheet 2.

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Fig. 2.

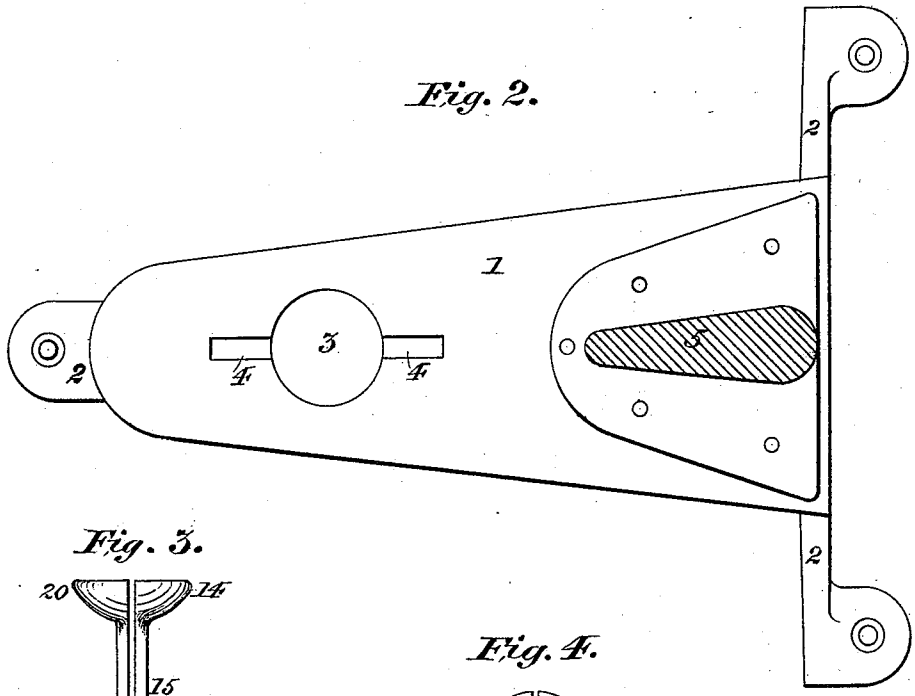


Fig. 3.

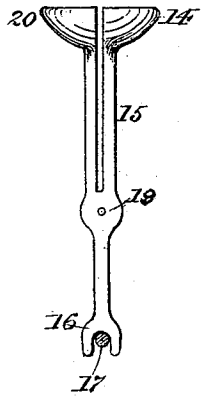


Fig. 4.

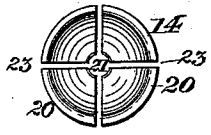


Fig. 5.

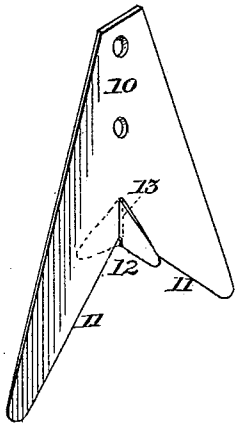


Fig. 6.

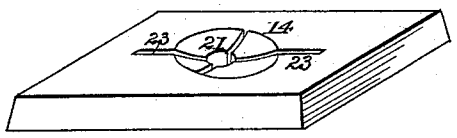
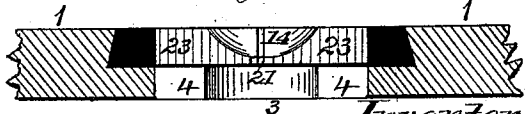


Fig. 7.



Witnesses:
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Inventor:
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UNITED STATES PATENT OFFICE.

ARTEMAS A. KENT, OF SAN JOSÉ, CALIFORNIA, ASSIGNOR OF ONE-HALF TO JOSIAH J. CHERRIE, OF SAME PLACE.

MACHINE FOR PITTING FRUIT.

SPECIFICATION forming part of Letters Patent No. 420,806, dated February 4, 1890.

Application filed July 26, 1889. Serial No. 318,719. (No model.)

To all whom it may concern:

Be it known that I, ARTEMAS A. KENT, a citizen of the United States, residing at San José, in the county of Santa Clara and State of California, have invented a new and useful Improvement in Machines for Pitting Fruit, of which the following is a specification.

My invention relates to machines for pitting fruit—such as cherries, peaches, plums, or other stone fruits—and my improvements consist in the construction and combination of parts, hereinafter fully disclosed in the description, drawings, and claims.

My improvement provides for quartering the fruit and thereby rendering the separation of the stone from the pulp more easy. It provides for a more certain and easy forcing of the stone from the pulp and from the fruit-support, and it provides for effecting these operations without undue crushing of the pulp. These objects are attained by the machine illustrated in the accompanying drawings, which form part of this specification, in which the same reference-numerals indicate the same parts, and in which—

Figure 1 represents a partial side elevation and vertical section of my improved machine for pitting or stoning fruit; Fig. 2, a top plan view of the base or table; Fig. 3, a detailed view of one-half of the fruit-holding cup and its supporting-arm. Fig. 4 is a top view of the fruit-holding cup; Fig. 5, a perspective view of the cutter; Fig. 6, a view of a modified form of the fruit-holding cup; and Fig. 7 is a vertical section of the same.

In the drawings, the numeral 1 indicates the base or table of the machine, which is mounted upon feet 2, and is formed at its forward end with a circular opening 3, diametrically intersected by a longitudinal slot 4. A standard 5 is secured upon the said base or table at its rear end, and has its upper end curved over toward the front end of said base to form vertical guides or bearings 6, in which a bar or rod 7, having a handle 8 or other means for reciprocating it, slides. A spring 9 is secured upon said standard and to said bar or rod, serving to raise the same when depressed. A cutter 10 is secured to the lower end of said vertically-reciprocating plunger bar or rod, and is formed with an inverted-V-shaped cutting-edge 11 at its lower end, said cutter being thus forked or inverted-V-shaped. A smaller cutting-blade 12 is secured in the crotch of said cutter, being inverted-V-shaped, with a cutting-edge upon its lower end, and with a vertical slot 13 extending from its upper end, with which slot it straddles the crotch of said cutter 10 from below and is secured to the same. The arms of said cutting-blade 12 will thus form laterally-projecting spurs, which will cut in a plane at right angles to the main cutter 10.

The yielding fruit-supporting cup 14 is preferably constructed as illustrated in Figs. 1, 3, and 4, although its construction may be modified, as shown by Fig. 6, and it consists of two arms 15, having their lower ends 16 straddling a rod or bar 17, longitudinally supported beneath the opening 3 of the base or table by brackets 18. The upper portions of said arms are formed with webs 19 and move in the longitudinal slots 4 in the base or table, and the upper ends of the arms are formed into two cup-halves 20, which are shaped to form a flaring cup having a contracted central throat 21. Springs 22 are secured to the brackets 18 and to said arms below their webs and serve to force said arms and cup-halves toward each other. The cup-halves and upper portions of the arms are formed with vertical slots 23, which stand at right angles to the slots formed between the meeting edges of said cup-halves, and said slots 23 register with the wings or blades of the main cutter 10 and may receive the same, while the laterally-projecting spurs of the smaller cutting-blade 12 may pass down between the meeting edges of the cup-halves.

If desired, the fruit-supporting cap may be made in four separate parts, each part having a separate arm suitably pivoted and a separate spring for forcing it inward.

In Fig. 6 of the drawings the fruit-supporting cup is shown as it appears when made of rubber or similar elastic material, having diametrical slots which register with the blades and spurs of the cutter. Said rubber cup will be less expensive than the yielding cup having pivoted parts, and may be advantageously used for small fruits, such as cherries, olives, &c.

In practice the fruit to be pitted or stoned

is placed in the supporting-cup and the cutter bar or rod depressed, when the cutter will divide the meat or pulp of the fruit and the crotches of said cutter and of the smaller cutting-blade will hold the seed or stone and force it down through the yielding throat of the cup, the meat or pulp remaining above said cup and dropping away at the sides of the same. The yielding or elastic cup will prevent parts of the meat or pulp of the fruit from passing out with the seed or stone, as the throat will close when said seed or stone has passed, and it will also serve to more thoroughly strip the said meat or pulp from the seed or stone, as the throat will bear firmly against the side of said seed or stone, excluding all the meat or pulp. Besides these advantages, the yielding or elastic cup will have the advantage of adapting itself to fruit and seed of varying sizes, so that when fruit smaller than the normal size of the kind of fruit pitted or stoned be placed upon the cup said fruit will be as perfectly pitted or stoned without waste as the fruit of the normal size, and when fruit larger than the normal size be placed upon the cup the throat will not be choked, as would happen in an unyielding or inelastic cup, but will yield to the larger seed.

The provision of the blades standing across the crotch or throat of the cutter 10 gives the advantage of quartering the fruit, and thereby allows the stone to separate from it more easily, while at the same time these cross-blades serve to force the stone down from the pulp and through the bottom of the cup, and while so doing the pulp is not crushed by the plunger action of the cutter, and the juice of the pulp is therefore not crushed out, as would be the case under a blunt punching action.

The construction of the fruit-supporting cup of half-circular sections, each having a separate and distinct yielding supporting-leg, a vertical slot adapted to receive the cross-blades of the cutter and together forming a central bottom hole, allows the cup-sections to open easily for the passage of the stone and renders it convenient for holding the upper portions of the cup-arms in guide-slots formed in the table or frame. The cup is comparatively shallow, so that after the stone is forced through it the closing of the sections will cause the four quarters of the fruit to fall over the edges of the cup, as the edges of the four cutter-blades pass entirely through the fruit and the cup holding it, and it is for this purpose that the slots 23 extend down into the cup-supporting arms, and the cup is made of separate and distinct sections. The four cutter-blades, moreover, have their cutting-edges of greater length than the diameter of the cup, so as to insure the quartering of the fruit, which may be of a diameter greater than that of the cup.

Having thus fully described the construction and arrangement or combination of the several parts of my improved machine for pitting or stoning fruit, its operation and advantages, what I claim is—

1. In a machine for pitting or stoning fruit, a support for the fruit, consisting of a circular cup-shaped holder constructed of separate and independent yielding sections, each having its bottom edge curved concentric with the circle of the cup to form when closed a bottom opening, and a pivoted leg-support for each section, in combination with springs for closing the said sections, substantially as described.

2. In a machine for pitting or stoning fruit, a support for the fruit, consisting of a circular cup-shaped holder of two half-sections, each section having a vertical pivoted leg-support and a radial slot 23, extending from the top of the cup into its leg-support, in combination with a plunger-cutter having cross-blades, and means for closing said cup-sections, substantially as described.

3. In a machine for pitting fruit, the combination, with a plunger-cutter, of a support for the fruit formed of a circular cup-shaped holder of two half-sections, each half having a leg-support, a table having guide-slots for such leg-supports, and a spring for closing said cup-halves, substantially as described.

4. In a machine for pitting or stoning fruit, the combination, with a plunger-cutter, of a yielding cup-shaped fruit-support having a central bottom opening, and radial slots entering said central opening and arranged in coincident relation to the blades of said cutter, substantially as described, for the purpose specified.

5. In a machine for pitting or stoning fruit, the combination of the base or table 1, having the opening 3, slots 4, and brackets 18, the standard 5, having the bearings 6, the rod or bar 7 in said bearings and provided with a handle 8, the spring 9, the cutter 10, having the edges 11 and the cutting-blade 12, the rod 17, the arms 15, mounted upon said rod and formed with the cup-halves 20, having the vertical slots 23 and the springs 22 for said arms, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

ARTEMAS A. KENT.

Witnesses:
B. F. ENTRIKEN,
W. B. HILL.