

No. 653,180.

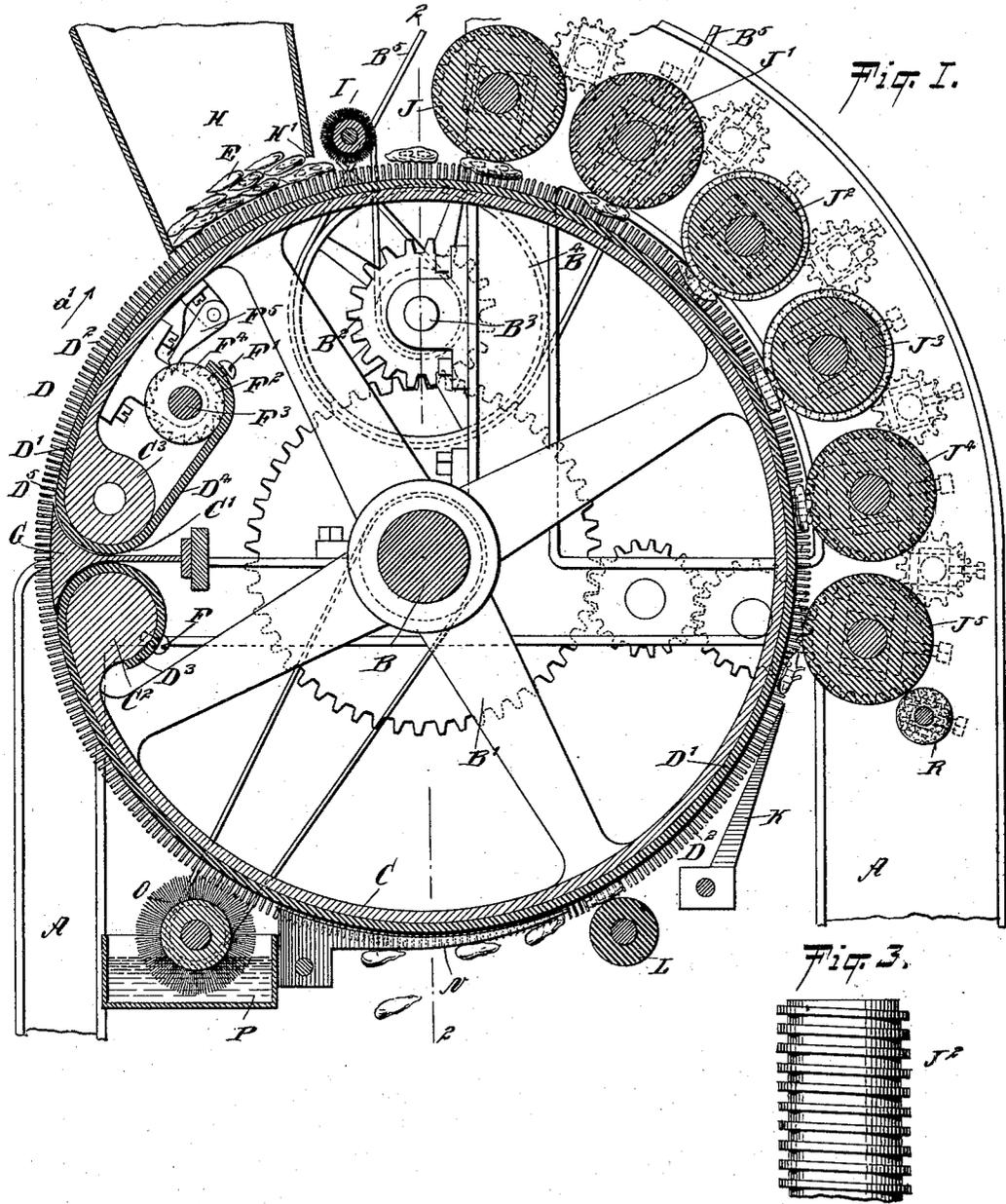
Patented July 3, 1900.

F. H. PETERMAN.
RAISIN SEEDER.

(Application filed Apr. 6, 1899.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES:

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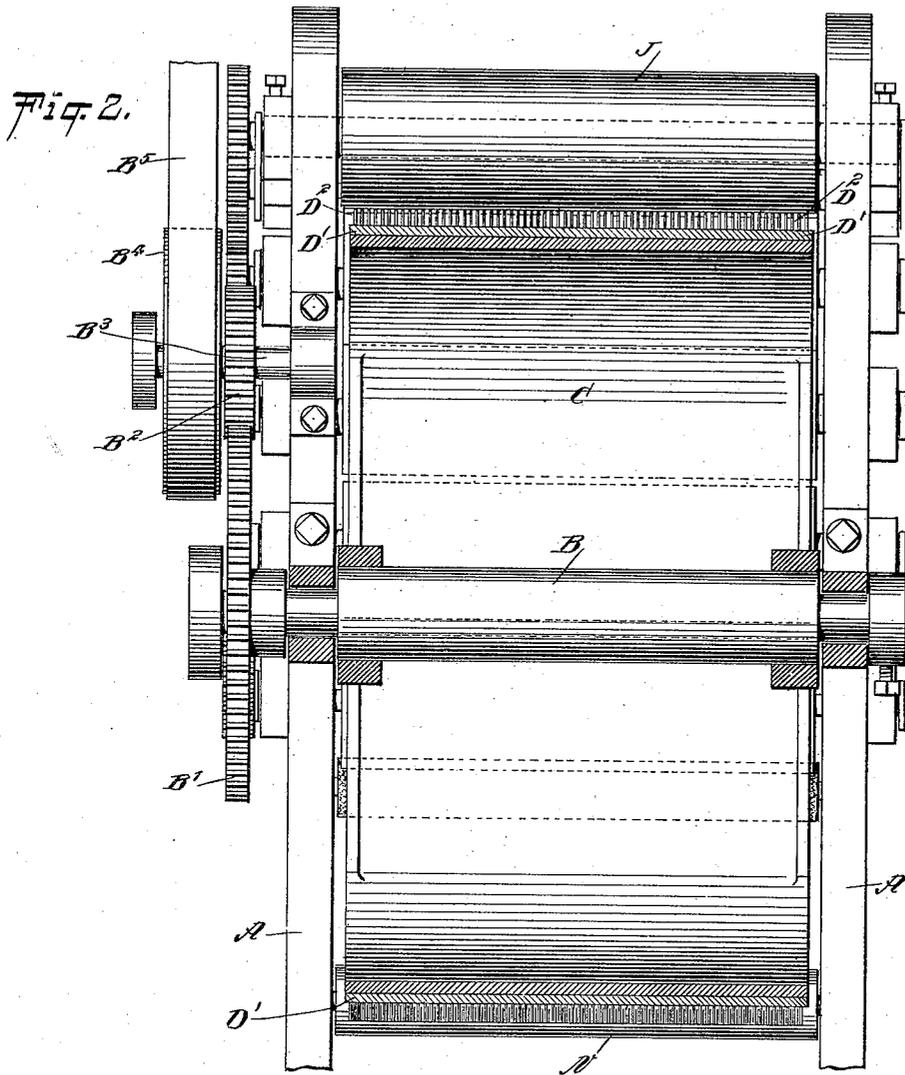
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UNITED STATES PATENT OFFICE.

FRANK H. PETERMAN, OF NEW YORK, N. Y.

RAISIN-SEEDER.

SPECIFICATION forming part of Letters Patent No. 653,180, dated July 3, 1900.

Application filed April 6, 1899. Serial No. 711,943. (No model.)

To all whom it may concern:

Be it known that I, FRANK H. PETERMAN, of the city of New York, borough of Manhattan, in the county and State of New York, have invented a new and Improved Raisin-Seeder, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved raisin-seeder which is simple and durable in construction, very effective in operation, and arranged to insure a complete separation of the seeds from the pulp without unduly injuring the latter by tearing or by other causes.

The invention consists of novel features and parts and combinations of the same, as will be fully described hereinafter and then pointed out in the claims.

A practical embodiment of my invention is represented in the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a sectional side elevation of the improvement. Fig. 2 is a transverse section of the same on the line 2 2 in Fig. 1, and Fig. 3 is a plan view of one of the elastic rollers for pressing the raisins on the impaling-pins.

The improved raisin-seeder illustrated in Figs. 1 and 2 is mounted on a suitably-constructed frame A, in which is journaled a cylinder-shaft B, connected by a gear-wheel B' with a pinion B², secured on a driving-shaft B³, likewise journaled in the main frame A, and having fast and loose pulleys B⁴, engaged by a belt B⁵, connected with other machinery for imparting a rotary motion to said shaft B³, the motion of the latter being transmitted by the pinion B² and the gear-wheel B' to the cylinder-shaft B to rotate the latter in the direction of the arrow a'.

On the shaft B is secured a drum or cylinder C, on the peripheral surface of which is removably secured an impaling-pin belt D, consisting principally of a flexible body D', of leather, canvas, thin sheet metal, or other suitable material, and impaling-pins D², secured in said body, arranged in longitudinal rows thereon and spaced apart in such a manner as to exclude the seeds of raisins E, but to penetrate the pulp and separate the pulp from the seeds, as hereinafter more fully

described. The impaling-pin belt is removably secured to the cylinder C to permit of conveniently removing the belt in case some of the pins are injured or it is desired to replace the belt by a new one in case the pins are worn out, and for this purpose the ends D³ D⁴ of the body D' are without impaling-pins, and said ends are passed through a longitudinal slot C', formed in the rim of the cylinder, to be passed over cylindrical offsets C² C³, respectively, formed on the rim of the cylinder, as is plainly indicated in Fig. 1. Screws F serve to secure the end D³ to the offset C², and the other end D⁴ of the belt-body D' is extended beyond the offset C³ and then fastened by screws F' to a roll F², having its shaft F³ journaled in suitable bearings attached to the inside of the cylinder-rim. A ratchet-wheel F⁴ is secured on the shaft F³ and is normally locked against rotation by a spring-pressed pawl F⁵, fulcrumed on a bracket attached to the cylinder-rim. By turning the roll F² after the end D³ is fastened in place the belt-body is firmly drawn around the peripheral surface of the cylinder to cause the belt to firmly adhere to the cylinder-rim and move with the same when the shaft and cylinder are turned in the direction of the arrow a'. When the desired tension has been given to the belt, the pawl F⁵ by engaging the ratchet-wheel F⁴ locks the roll F² against rotation to hold the belt at the desired tension. When it is desired to remove the belt, the pawl F⁵ is thrown out of engagement with the ratchet-wheel F⁴. Then the roll F² is turned to slacken the end D⁴, and then the screws F F' are removed to allow of removing the belt from the cylinder.

From the foregoing it is evident that the pin-belt is not continuous, and a space is left at the ends of the rows of pins, as indicated in Fig. 4; but this space may be filled with impaling-pins D⁵, secured to a separate piece G, fitted into the slot C' around the belt-body at the offsets C² C³, the piece G being secured at its inner end to the cylinder C in any desired manner. (See Fig. 1.)

The raisins E to be seeded are contained in a hopper H, discharging the raisins upon the impaling-pins near the top of the cylinder, as plainly shown in Fig. 1, the raisins passing from the hopper through a slot H' to be quickly

distributed over the impaling-pins by a revoluble brush I, driven from the driving-shaft B³ by suitable pulleys and a crossed belt, as indicated in Figs. 1 and 2. The evenly-distributed raisins now pass successively under a number of elastic rollers J J' J² J³ J⁴ J⁵, journaled in adjustable bearings held on the main frame A, the rollers J J' and J⁴ J⁵ preferably having smooth peripheral surfaces and the intermediate rollers J² J³ having circumferential flanges serving as teeth, as illustrated in Fig. 3. Now as the raisins are carried under the roller J they are pressed upon the impaling-pins, and the next roller J', on account of being closer to the pins, presses the raisins still farther upon the pins. When the impaled raisins reach the rollers J² J³, they are still farther pressed on the pins, so that the seeds are forced out by the pins through the skin of the pulp, and as the seeds can readily pass between adjacent pins or teeth of the rollers J² J³ it is evident that the skin of the pulp is opened sufficiently for the passage of the seeds, thus avoiding serious injury or tearing of the pulp. The seeds adhere to the outer ends of the pins, and the pulp is still held to the pins after passing the rollers J⁴ J⁵, and then the seeds are removed from the impaling-pins by a seed-stripper K, made in the form of a comb, the teeth extending tangentially to the peripheral surface of the belt, the points of the teeth being in close proximity to the points of the impaling-pins, so that the seeds are forced out from the impaling-pins without the teeth of the comb injuring the pulp still held on the impaling-pins D². The impaled pulp finally passes over a roller L and is then gradually engaged by the teeth of a segmental comb forming a fruit-stripping device N, attached to the main frame A, the teeth of the comb lying in the spaces between the rows of impaling-pins and close to the belt-body surface, the comb-teeth gradually increasing in size and extending beyond the outer ends of the pins, as is plainly indicated in Fig. 1. When the cylinder C rotates in the direction of the arrow a', the comb-teeth engage the inner sides of the impaled pulp and gradually force the same outward on the impaling-pins until the pulp finally leaves the pins at the time it reaches a lowermost point on the cylinder, so that the pulp drops down into a suitable receptacle held below the bottom of the cylinder.

Immediately in the rear of the seed-stripping device is arranged a revoluble cleaning-brush O for engaging the impaling-pins, so as to clean the same of all foreign matter previous to the pins passing back into the hopper H to receive other raisins to be treated in the manner described. The revoluble brush O rotates in water contained in a fount P, so that the bristles always remain clean, and

thereby insure a proper cleaning of the impaling-pins. 65

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

1. A raisin-seeder, having a cylinder or drum with an opening in the face thereof, a flexible belt passed over the cylinder or drum and having its ends passed through the opening and secured to the cylinder or drum inside the face or periphery thereof, pins mounted on the flexible belt, a member attached to the cylinder or drum and fitting in the opening thereof to form a continuation of the periphery of the drum, and pins attached to said member. 75

2. A raisin-seeder having a cylinder or drum with an opening in the face thereof, a belt strained over the cylinder or drum and having its end projected through the openings therein thus forming a break in the circular continuity of the belt, means for fastening one end of the belt to the cylinder within said opening, a roller carried by the cylinder inside of the periphery thereof and adjacent to the opening, the other end of the belt being attached to the roller, means for adjustably holding the roller permitting the tension of the belt to be regulated by the roller, and a member removably attached to the cylinder or drum and fitted within the opening therein to fill the said break in the circular continuity of the belt, said member having pins attached to its outer face. 80 85 90 95

3. In a raisin-seeder, the combination with a frame, of a drum mounted to turn therein and having its periphery formed with an opening extending transversely across it, the drum having rounded offset or enlarged portions at each side of said opening, a flexible belt passed over the periphery of the drum, the ends of the belt being extended through the opening therein to the inside of the drum and around the respective offset portions, one end being fastened to one offset portion, a roller mounted within the drum and having the other end fastened thereto, means for holding the roller to keep the belt strained on the drum, impaling-pins carried by the belt, a block removably set into the opening in the drum and having its outer surface forming a continuation of the surface of the belt, impaling-pins attached to said block in circumferential line with the impaling-pins on the belt, a roller mounted at the periphery of the drum and working with the same to press the raisins into engagement with the impaling-pins, and means for removing the raisins and seeds from the impaling-pins. 100 105 110 115 120

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Witnesses:

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