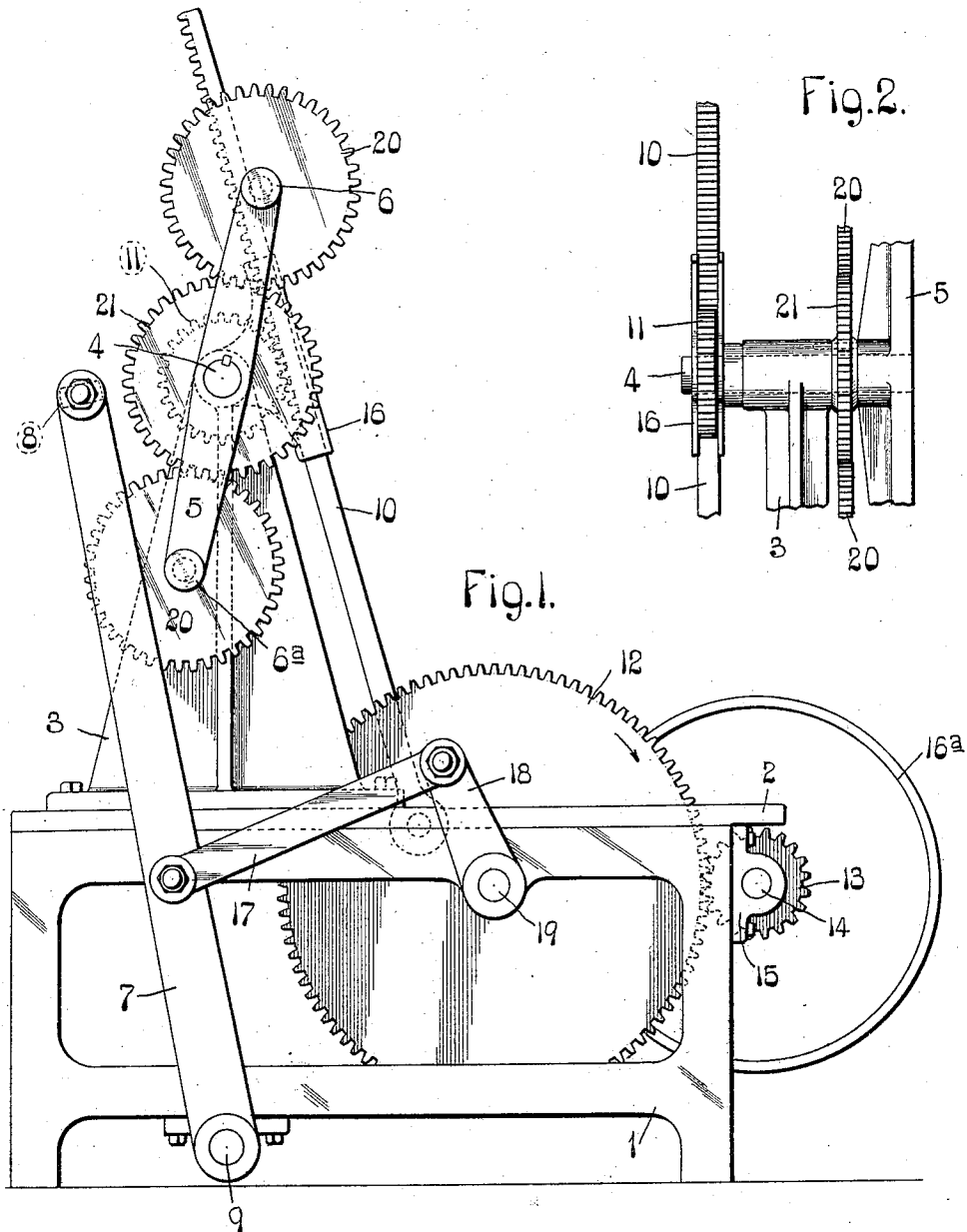


No. 887,768.

PATENTED MAY 19, 1908.

J. L. CAUSEY.
CANDY PULLING MACHINE.
APPLICATION FILED OCT. 9, 1907.

4 SHEETS—SHEET 1.



Witnesses
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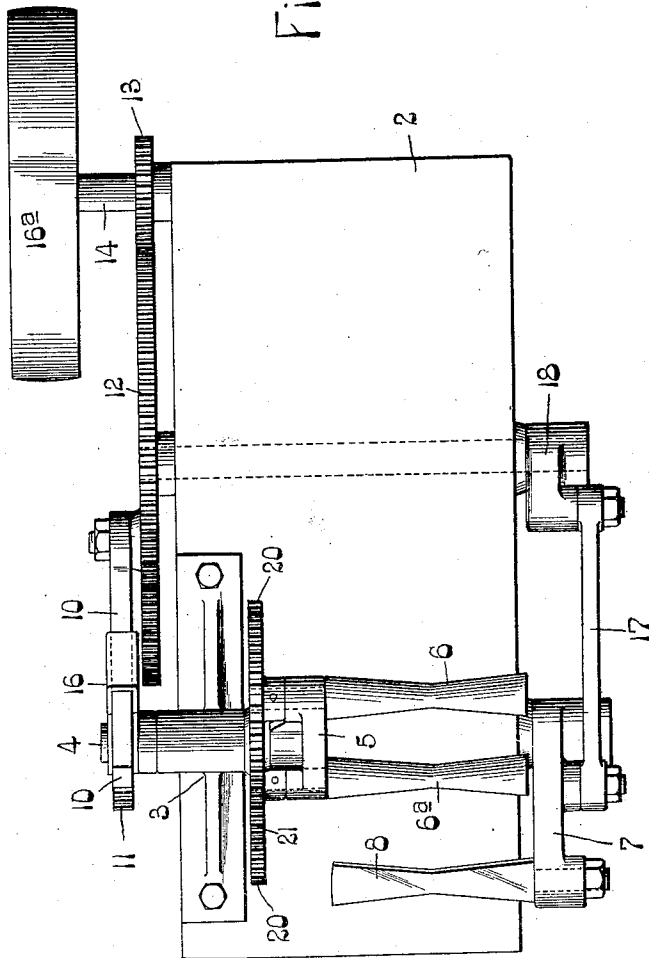
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4 SHEETS—SHEET 2.

Fig. 3.



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Fig. 4.

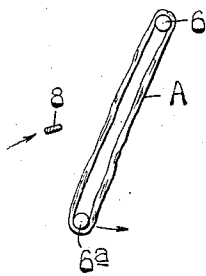


Fig. 5.

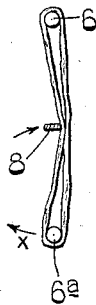


Fig. 6.

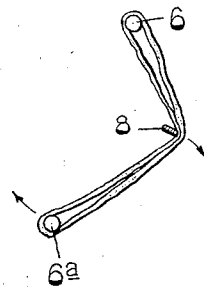


Fig. 7.

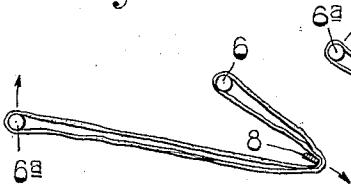


Fig. 8.

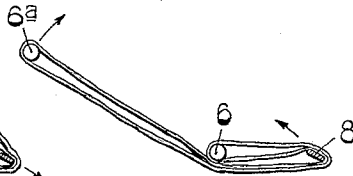


Fig. 9.

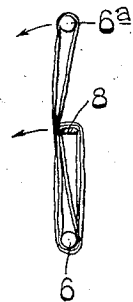


Fig. 10.

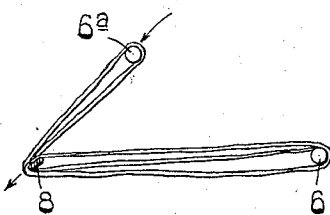


Fig. 11.

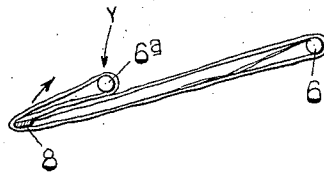
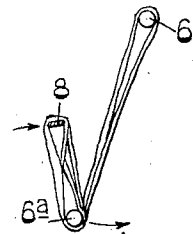


Fig. 12.



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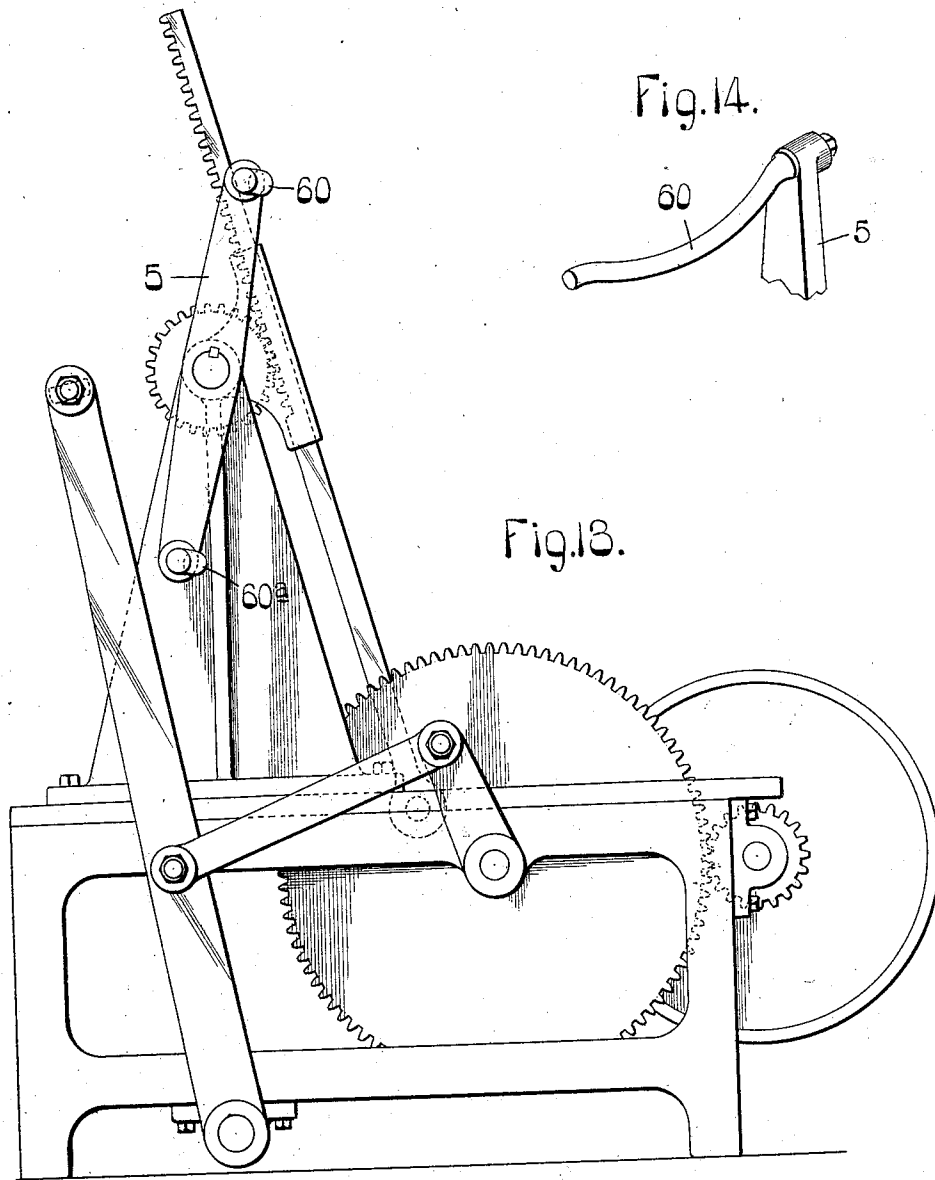
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No. 887,768.

PATENTED MAY 19, 1908.

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CANDY PULLING MACHINE.
APPLICATION FILED OCT. 9, 1907.

4 SHEETS—SHEET 4.



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UNITED STATES PATENT OFFICE.

JOSEPH L. CAUSEY, OF KANSAS CITY, MISSOURI, ASSIGNOR TO LOOSE-WILES CRACKER & CANDY COMPANY, OF KANSAS CITY, MISSOURI, A CORPORATION OF MISSOURI.

CANDY-PULLING MACHINE.

No. 887,768.

Specification of Letters Patent.

Patented May 19, 1908.

Application filed October 9, 1907. Serial No. 396,636.

To all whom it may concern:

Be it known that I, JOSEPH L. CAUSEY, a citizen of the United States, residing at Kansas City, Jackson county, Missouri, have invented a certain new and useful Improvement in Candy-Pulling Machines, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side elevation of a candy-pulling machine embodying the features of my invention; Fig. 2 is an end elevation of parts of the machine shown in Fig. 1; Fig. 3 is a top plan view of the machine; Figs. 4 to 12, inclusive, are detail views illustrating the relative positions of the candy-supporting and pulling pins during a complete cycle of operations of the machine. Fig. 13 is a side elevation of a machine of slightly different form from that shown in Fig. 1; and Fig. 14 is a detail view of one of the pins with which the machine shown in Fig. 13 is provided.

This invention relates to candy pulling machines.

One object of my invention is to provide a very powerful machine that can be used for pulling large batches of candy and which will produce candy having a long grain.

Another object of my invention is to provide a machine provided with means for preventing the candy from sticking to the pins or members on which the batch of candy is mounted. And still another object of my invention is to provide a machine having straight candy-supporting pins that are contracted intermediate their ends so as to center the batch of candy and also afford a concaved supporting surface for the batch during the entire operation of pulling same.

Referring to Figs. 1, 2 and 3 of the drawings which illustrate the preferred form of my invention, 1 designates the frame of the machine provided with a flat table 2 to which an upright or support 3 is secured. An oscillating shaft 4 is journaled in the upper end of this support 3 and an arm 5 is secured to the inner end of the shaft 4, said arm being provided adjacent its ends with pins 6 and 6^a over which the batch of candy is looped. A rock lever 7 which forms the candy-pulling member, is arranged opposite to the oscillating arm 4 that carries the batch of candy,

and said lever is provided at its upper end with a pin or member 8 that engages the batch of candy when movement is imparted to said lever. The rock lever is secured at its lower end to a horizontal shaft 9 arranged in vertical alinement with the shaft 4 of the oscillating arm and mounted in bearings on the frame 1. Oscillating movement is imparted to the arm 5 by means of a rack bar 10 meshing with a pinion 11 on the outer end of the shaft 4, said rack bar being eccentrically connected at its lower end to a gear 12 which is driven by a pinion 13 on the drive shaft 14. The drive shaft 14 is mounted in bearings 15 on the frame and is provided with a pulley 16^a for receiving a belt (not shown). The rack bar 10 is held in mesh with its cooperating pinion 11 by means of a guideway 16 pivotally mounted on the shaft 4 so that it can accommodate itself to the movements of the rack bar, which, as previously stated, is eccentrically connected to the gear 12. Movement is imparted to the rock lever 7 by means of a link 17 connected to said lever and to a crank arm 18 on one end of a shaft 19 which has the gear 12 secured to its opposite end.

The candy-supporting pins 6 and 6^a on the oscillating arm 5 are straight and are contracted intermediate their ends, as shown in Fig. 3, so as to form a hollow or concaved supporting surface for the batch of candy, thereby causing the batch to be centered on the pins. The pin 8 on the rock lever 7 is also contracted intermediate its ends, as shown in Fig. 3. The pins 6 and 6^a are rotatably mounted in the oscillating arm 5 and each pin is provided at its outer end with a gear 20 that meshes with a stationary gear 21 so that when the arm 5 oscillates, rotary movement will be imparted to the pins 6 and 6^a and thus prevent the candy from sticking to said pins.

In Figs. 4 to 12, inclusive, I have illustrated the different positions of the pins 6 and 6^a and the pin 8 during a complete cycle of operations, assuming that the machine is started when the parts are in the position shown in Fig. 1. The strand of candy A to be pulled, is preferably looped or stretched over the pins 6 and 6^a on the oscillating arm 5 and the machine is then started. The gear 12 rotates in the direction indicated by the arrow in Fig. 1 so that the rack bar 10 will first move upwardly a short distance and

thus cause the pins 6 and 6^a to move from the position shown in Fig. 4 into the position shown in Fig. 5. The rack bar then moves downwardly and thus causes the arm 5 to turn clockwise, as indicated by the arrow X in Fig. 5, the pin 8 on the rock lever 7 then engaging the candy and passing between the pins 6 and 6^a so as to stretch or pull the candy, as shown in Fig. 6. The pin 8 on the rock lever 7 reaches the end of its throw to the right, as shown in Fig. 7, before the oscillating arm 5 has completed its movement in the direction indicated by the arrow X so that the pin 6 on the arm 5 will engage the portion of the candy between the pins 6^a and 8, as shown in Fig. 8, and thus lap or double the strand of candy. The rock lever 7 which carries the pin 8 is moved to the left, back to its starting position, and by the time the arm 5 has described a complete semicircle, and thus carried the pins 6 and 6^a into the position shown in Fig. 9, the pin 8 will come into alinement with the pins 6 and 6^a, as shown in Fig. 9. As the pin 8 continues to move to the left it passes between the pins 6 and 6^a and thus laps or doubles the strand of candy again, as shown in Fig. 10. When the arm 5 oscillates anti-clockwise, back to starting position, as indicated by the arrow γ in Fig. 11, the pin 6^a will engage the portion of the strand of candy that extends from the pin 6 to the pin 8 and thus double or lap the candy again, as shown in Fig. 12, the pin 8 moving to the right as the arm 5 moves back to starting position so that at the end of a complete cycle of operations the pins 6, 6^a and 8 will be in the positions shown in Fig. 12. As the pins 6 and 6^a and the pin 8 are straight and are contracted intermediate their ends, the candy will not slip off same but will be centered on the contracted portions which are hollow or concaved. The pins 6 and 6^a will rotate first in one direction and then in the opposite direction during the operation of pulling the candy so that the candy cannot stick to the pins.

In Figs. 13 and 14 I have shown a slightly modified form of my improved candy-pulling machine in which the candy-supporting pins 60 and 60^a are rigidly connected to the oscillating arm 5, said pins being curved, as shown in Fig. 14, and being of substantially the same construction as the pins on the candy-pulling machines which have heretofore been in general use.

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

1. A candy-pulling machine comprising a frame, a standard or support projecting upwardly from said frame, a horizontal shaft journaled in said support, a rock arm secured to said shaft and provided with pins for supporting a batch of candy, a pinion connected to said shaft, a rack bar meshing with said

pinion, a guideway for said rack bar pivotally mounted on said shaft, and a rock lever connected at its lower end to the frame and provided at its upper end with a pin which passes between the pins on the oscillating arm when said lever is actuated; substantially as described.

2. A candy-pulling machine comprising a frame provided with an upwardly projecting support, an oscillating arm carried by said support and provided with pins for receiving a batch of candy, a reciprocating rack bar for actuating said arm, a rock lever provided with a pin adapted to pass between the pins on the oscillating arm, a horizontally disposed shaft to which said rack bar is eccentrically connected, a crank arm on said shaft connected by a link to the rock lever, and means for rotating said shaft; substantially as described.

3. A candy-pulling machine comprising an oscillating arm provided with pins for supporting a batch of candy, a movable member provided with a pin which is adapted to travel between the pins on the oscillating arm when said member is actuated, and means for continuously rotating the candy-supporting pins on said oscillating arm while the machine is in operation; substantially as described.

4. A candy-pulling machine comprising an oscillating arm, candy-supporting pins rotatably mounted in said arm and each provided at one end with a toothed member, a rigidly mounted toothed member cooperating with the toothed members on said pins, means for actuating said oscillating arm, and a movable member provided with a pin for engaging the candy supported by the pins of the oscillating arm; substantially as described.

5. A candy-pulling machine comprising an oscillating arm, candy-supporting pins rotatably mounted in said arm and each being provided with a gear, a stationary gear meshing with the gears on said pins, means for actuating said oscillating arm whereby the pins thereon are caused to rotate, and a rock lever provided with a pin for engaging the candy supported by the pins of the oscillating arm; substantially as described.

6. A candy-pulling machine provided with a movable member, pins rotatably mounted in said member for supporting a batch of candy, automatic means for rotating said pins while the machine is in operation, and a member provided with a pin which cooperates with the pins on said movable member to pull the batch of candy; substantially as described.

7. A candy-pulling machine provided with straight candy-supporting pins which taper or diminish gradually in thickness from their outer ends to their transverse centers; substantially as described.

8. A candy-pulling machine comprising an

oscillating arm provided with straight cylindrical candy-supporting pins which are contracted intermediate their ends, a rock lever provided at its upper end with a straight
5 candy-engaging pin which is contracted intermediate its ends, means for oscillating said arm, means for actuating said rock lever so that the pin thereon intersects the path of
10 cillating arm, and automatic means for ro-

tating the candy-supporting pins on said oscillating arm while the machine is in operation; substantially as described.

In testimony whereof I hereunto affix my signature in the presence of two witnesses, 15 this fourth day of Oct. 1907.

JOSEPH L. CAUSEY.

Witnesses:

JOSEPH S. LOOSE,
JAMES W. HAZEN.