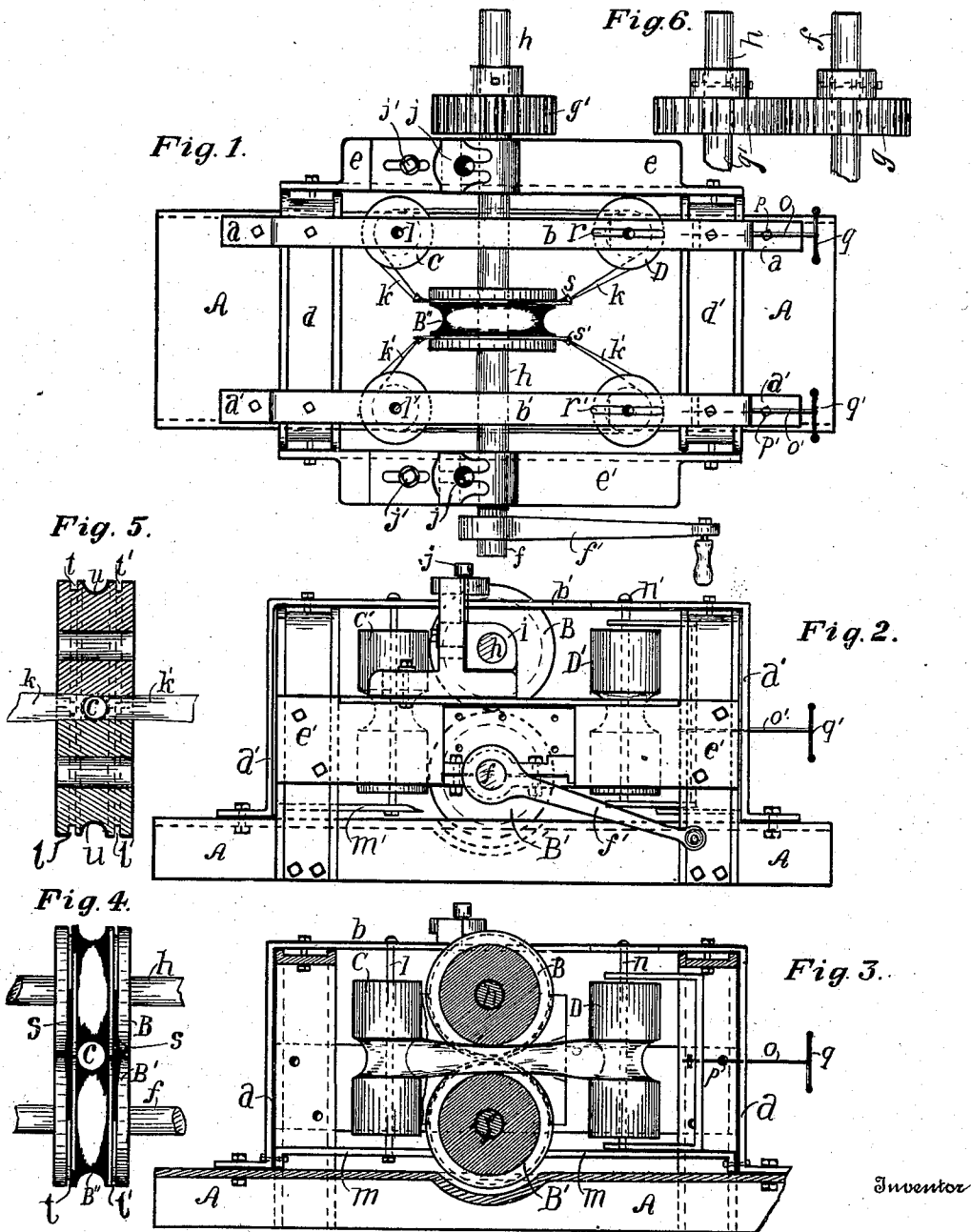


No. 873,396.

PATENTED DEC. 10, 1907.

R. S. WALTERS.
 ROUND STICK CANDY MAKING MACHINE.
 APPLICATION FILED MAY 4, 1907.



Witnesses

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RUSSELL SMITH WALTERS, OF OKLAHOMA, OKLAHOMA.

ROUND-STICK-CANDY-MAKING MACHINE.

No. 873,396.

Specification of Letters Patent.

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Application filed May 4, 1907. Serial No. 371,830.

To all whom it may concern:

Be it known that I, RUSSELL SMITH WALTERS, a citizen of the United States, residing at Oklahoma city, Oklahoma, have invented certain new and useful Improvements in Round-Stick-Candy-Making Machines, of which the following is a specification.

My invention relates to machines for making round stick candy, in which a framework is provided resting on a base and having journaled in said framework two like horizontal rollers, one above the other, and midway between their ends having semi-circular grooves cut laterally from their surfaces in a manner to form a circular opening between said rollers when they come in contact; the said grooves being cushioned or covered with leather webbing or other suitable fabric the shaft on one of said rollers being provided with a hand-crank for turning the same and the opposite end being provided for a pinion for turning the rollers by motor power; in said framework are two pairs of similarly grooved rollers having their grooves on a plane with the grooves of the horizontal rollers the said two pairs of rollers being vertical and having endless leather or fabric belts passing around their centers and through the circular opening between said horizontal rollers for the purpose of drawing and forcing the material of which the candy is made through the opening thus formed; proper feeding tables and delivery tables being provided, and means for tightening said belts.

The objects of my invention are to provide a practically operating machine for making round stick candy; one that will save time and save labor. I accomplish these objects by the mechanism illustrated in the accompanying drawings forming a part of this specification, in which—

Figure 1 is a plan view of my machine showing the semi-circular groove in the upper horizontal roller and showing the relative positions of the two pairs of vertical rollers; Fig. 2 is a right side elevation of the machine; Fig. 3 is a part sectional elevation; Fig. 4 is a detail elevation of the horizontal rollers; Fig. 5 is a vertical section of Fig. 4 with a portion of the feeding belts in position; Fig. 6 is an elevation of the twin spur pinions upon the shafts of the horizontal forming rollers.

Similar letters refer to similar parts in the several views.

Referring to the drawings, A is the base of the machine upon which the side frames *a* and *a'* rest and are bolted at their feet thereto and form corner posts and the two side plates *b* and *b'*; to the said plates and near their ends are secured cross beams having their ends bent downward and secured to the base A to form supports for the longitudinal roller-supports *e* and *e'* having secured thereto the journal boxes of the shaft *f* of the lower forming roller B', said shaft being provided with a crank *f'* for turning the same and the opposite end having secured thereon a twin spur pinion *g* meshing into its duplicate pinion *g'* secured upon the shaft *h* of the upper forming roller B having adjustable journal boxes *i*, the nuts *j j* being for the vertical adjustment of the upper roller B and the nuts *j' j'* being for the horizontal adjustment of the said roller.

To convey the mass of prepared candy material through the forming opening *c* between the forming rollers B and B' the two endless belts *k* and *k'* are provided which pass continuously through the said opening *c* and around the vertical rollers C D and C' D' having annular semi-circular grooves midway between their ends; the shafts *l* and *l'* of the said rollers C and C' have their upper ends journaled in the plates *b* and *b'* and their lower ends journaled in the horizontal bars *m* and *m'*; the shafts *n* and *n'* of the rollers D and D' are journaled in the ends of the arms of a vertical frame shaped much like the letter E reversed, and designated as E and E', with threaded tightening rods *o* and *o'* passing through threaded nuts *p* and *p'* and through the vertical back portion of the tightening frames E and E', the said rods having head-nuts upon their contact ends and turning-handles upon the opposite ends; to provide for the movement of the said rollers D and D' the longitudinal slots *r* and *r'* are cut in the plates *b* and *b'* through which the upper ends of the roller shafts pass, the lower ends of the shafts resting on the horizontal bars *m* and *m'*.

To aid the belts *k* and *k'* to prevent the lateral spreading and escape of the candy material the vertical steel guides *s* and *s'* are set in the annular channels *t* and *t'* cut in the rollers B and B', the edges of said plates being adapted to the said grooves, and having their ends concaved and outwardly bent adapted to the form and aid of the feeding-belts *k* and *k'*. The cushions or coverings *u* of the form-

ing rollers B and B' are placed thereon in a manner to adhere firmly to the said rollers to prevent their slipping, since they aid in pulling the feeding-belts *k* and *k'* through the forming hole *c*, formed by the annular semicircular grooves B'' in the rollers B and B'.

In operation, the material from which the sticks of candy is made is placed on a feeding table or by other means conveyed in mass to the entrance of the forming-hole *c*, the crank *f'* being turned the forming rollers B and B' are caused to rotate in opposite directions by means of contact friction and positively by means of the twin pinions *g* and *g'* tending to draw the feeding-belts *k* and *k'* through the forming-hole *c* and carrying the candy material with them delivering it in a round rod-like stick which may be delivered on a table and cut into any desired lengths. The size of the sticks of candy is determined by the size of the forming-hole *c* governed by the size of the roller grooves and by the thickness of the cushions or coverings in said grooves. The machine may be run by steam or other power by placing a pinion or a pulley upon either shaft *f* or *h* and connects with the power generator or producer. In the present case the forming rollers B and B' have their annular grooves B'' adapted to make round sticks of candy, but it will be understood that by a proper modification of the said grooves candy sticks of any other form may be made.

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

1. In a stick candy-making machine having proper framework, a pair of like or duplicate rollers mounted on shafts journaled in said framework with means for rotating the same, the semicircular annular grooves B'' in alinement to form a round hole between said

rollers when their peripheries contact, the cushion or covering firmly secured in said grooves to produce a pulling and a pressing force to be exerted upon the candy material, the annular channels *t* and *t'* cut in the peripheries of the said rollers adjacent the said semicircular grooves to serve as guide seats, the guide-plates *s* and *s'* being adapted to said seats with their sides vertical their ends outwardly bent and inwardly concaved to confine and guide the candy material, substantially as described.

2. In a stick-candy-making machine as described; a pair of duplicate forming rollers having centrally located annular grooves on alinement to constitute a forming opening *c* between said rollers; cushions or covering secured in said grooves; means for rotating said rollers in opposite directions; an annular channel cut in the peripheries of the said forming rollers each side and near the said grooves centrally located therein; a pair of vertical guide-plates loosely fitted in said channels and having their ends concave and outwardly bent to resist the lateral pressure of the pre-molded material; a pair of guide-belts *k* and *k'* vertically arranged on rollers or pulleys and adapted to pass continuously in either direction through the molding hole or opening *c* formed by the said grooves in the said forming rollers, for the purpose of drawing the pre-molded material through the said molding hole or opening; means for tightening said belts, substantially as described and for the purposes set forth.

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

RUSSELL SMITH WALTERS.

Witnesses:

EDWIN STEPHENSON,
RAY SHUNTERMAN.