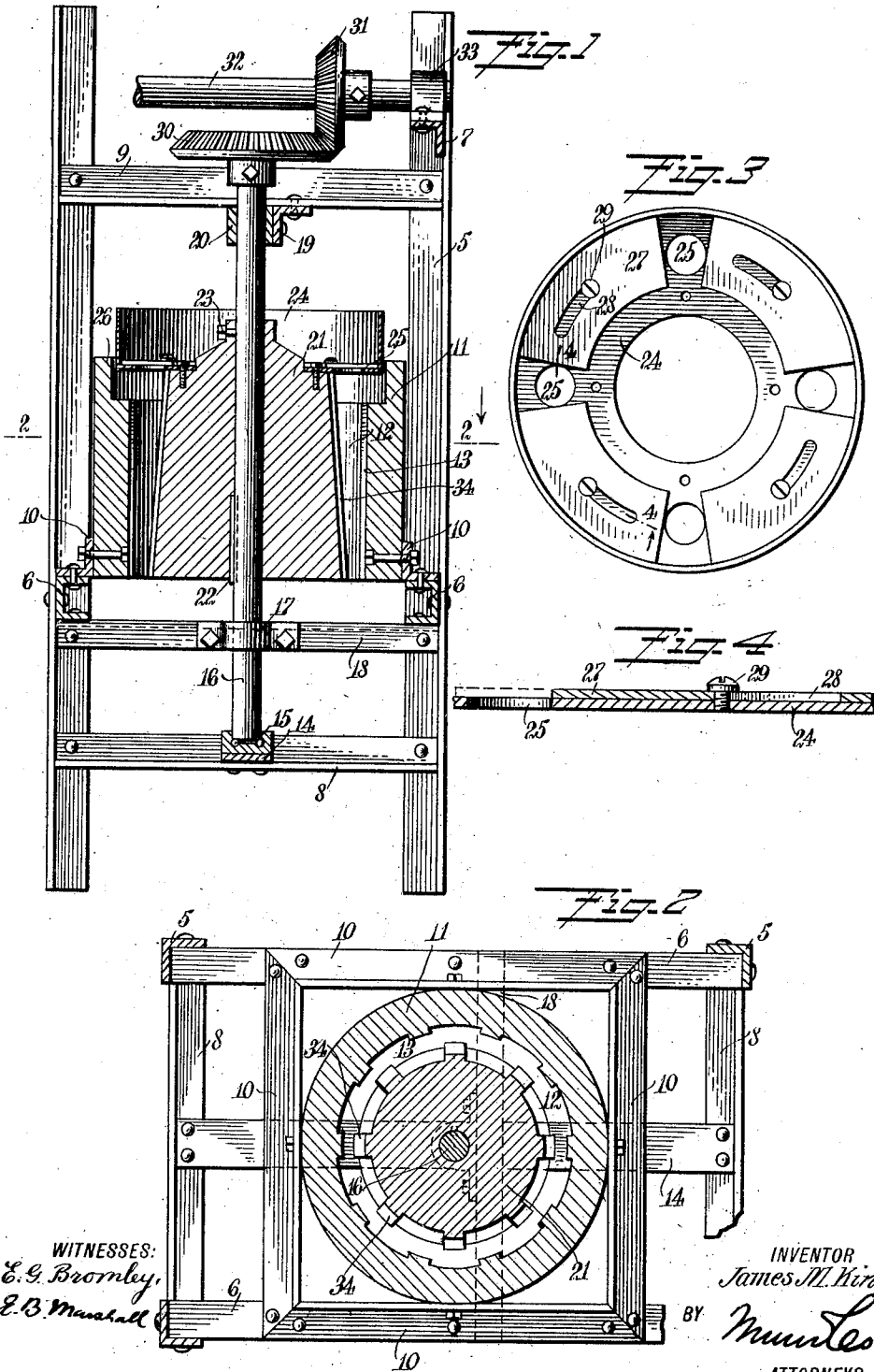


J. M. KING.
NUTCRACKING MACHINE.
APPLICATION FILED AUG. 9, 1910.

1,025,405.

Patented May 7, 1912.



WITNESSES:
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UNITED STATES PATENT OFFICE.

JAMES M. KING, OF NORTH VERNON, INDIANA.

NUTCRACKING-MACHINE.

1,025,405.

Specification of Letters Patent.

Patented May 7, 1912.

Application filed August 9, 1910. Serial No. 576,296.

To all whom it may concern:

Be it known that I, JAMES M. KING, a citizen of the United States, and a resident of North Vernon, in the county of Jennings and State of Indiana, have invented a new and Improved Nutcracking-Machine, of which the following is a full, clear, and exact description.

My invention relates to nut cracking machines, and it has for its object to provide a machine having a member with an opening in which a second member is disposed, the inner wall of the first-mentioned member and the wall of the second, or inner, member converging downwardly, there being ribs on the inner wall of the first member and ribs on the wall of the second member, so that when the second member is rotated and nuts are disposed in the space between the two members, they will be cracked.

Another object of the invention is to provide means for adjusting the inner member on the shaft by which it is supported for regulating the space between the two members at the bottom of the outer member.

Another object of the invention is to provide a hopper secured to the top of the second, or inner, member, the hopper being provided with openings, spaced apart, leading to the space between the two members, through which the nuts will be distributed evenly to all parts of the cracking machine.

Still another object of the invention is to provide the hopper with lids for closing portions of the openings, as may be desired.

Still other objects of the invention will appear in the following complete description.

In this specification I will describe the preferred form of my invention, it being understood that the scope of the invention is defined in the appended claims.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views, and in which—

Figure 1 is a transverse, sectional elevation of the machine; Fig. 2 is a sectional plan view on the line 2—2 of Fig. 1; Fig. 3 is a plan view of the hopper; and Fig. 4 is a sectional view on the line 4—4 of Fig. 3.

By referring to the drawings, it will be seen that a frame is provided, consisting of standards 5, which are connected by longitudinal members 6 and 7, and transverse

members 8 and 9. I prefer to manufacture this frame of angle iron, but it will, of course, be understood that it may be constructed of any desired material.

To the longitudinally-disposed frame members 6 are secured frame members 10, to which in turn an outer cylindrical cracker member 11 is secured. The opening 12 in this cylindrical cracker member 11 extends from its top to its bottom, and to the inner wall of this cracker member 11, are secured vertically-disposed ribs 13. Connecting the transverse frame members 8, is a support 14 having a bearing 15, in which is journaled a shaft 16, this shaft 16 also being journaled in a bearing 17 in a transverse member 18 secured to the longitudinally-disposed frame members 6. The transverse frame members 9, at the top of the machine, are connected by a supporting member 19 having a bearing 20, in which the shaft 16 is also journaled. The inner, conically-shaped cracker member 21 is mounted on the shaft 16, the said cracker member 21 being keyed to the shaft at 22, a set screw 23 being provided, by which means the cracker member 21 may be held rigid relatively to the shaft. This conically-shaped cracker member 21 is disposed in the circular opening 12 in the cylindrical cracker member 11, and, as it is adjustable relatively to the shaft 16, it may be raised or lowered relatively to the cylindrical cracker member 11, so that the space between the two cracker members at the bottom of the outer or cylindrical cracker member may be regulated.

At the top of the conically-shaped cracker member 21, there is a hopper 24, this hopper 24 having openings 25 spaced apart within the plane of the inner wall of the outer, or cylindrical, cracker member 11. Circular cutaway portions 26 are made in the outer, or cylindrical, cracker member 11, to receive the hopper 24 when the inner, or conically-shaped cracker member 21 is lowered relatively to the shaft 16 and the outer, or cylindrical, cracker member 11. Lids 27 are provided for covering the openings 25, these lids 27 having guideways 28, in which are disposed screw guides 29, which are secured to the hopper 24. The lids 27 are provided for closing the openings 25, as may be desired, it being possible to move the said lids 27 so that portions of the openings 25 will be covered, after which the lids 27 may be held in place by turning home the screws 29.

A bevel gear wheel 30 is secured to the shaft 16, this bevel gear wheel 30 meshing with a beveled gear wheel 31 secured to a shaft 32 journaled in a bearing 33 in the frame member 7. Vertically-disposed ribs 34 are secured to the side of the inner, or conically-shaped cracker member 21.

The ribs 34 are so spaced apart relatively to the ribs 13 that as the cracker member 21 is rotated, one of the ribs 34 will at all times be disposed opposite one of the ribs 13 respectively, so that there will be an even load on the machine as it is operated.

In using the invention, the lids 27 are adjusted so that nuts of a predetermined size may fall from the hopper through the openings 25 therein and into the space 12 between the two cracker members. This having been done, nuts are disposed in the hopper and the shaft 32 is rotated. As the shaft 32 rotates, by means of the gearing provided, the shaft 16 is caused to rotate, thereby rotating the hopper 24 and the inner, or conically-shaped cracker member 21. By the rotation of these members, the nuts which fall through the openings 25, are cracked between the ribs 13 and the ribs 34 on the cracker members, the cracked nuts falling at the bottom of the said cracker members.

As the inner wall is conical in shape and as the diameter of the opening in the outer wall is the same from its top to its bottom, the machine is adapted for cracking large nuts near the top of its members, while smaller nuts may be cracked near the bottom of the members.

The machine may be used as a combined nut huller and cracker, or it may be used merely for hulling nuts, leaving the crack-

ing to be done by another operation. When the machine is used as a combined huller and cracker, the upper portions of the members hull the nuts while the lower portions of the members crack the hulled nuts.

It will be understood that the inner, or conically-shaped, member may be raised or lowered on its shaft and relatively to the outer member, so that the space between the two members at the bottom of the outer member, may be adjusted to meet all requirements in cracking nuts of different sizes.

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

In a nut cracking machine a grinding member having an opening with a circular shoulder therearound, a second grinding member disposed in the opening, and spaced from the inner wall of the first-mentioned member, a hopper member secured to the second-mentioned member and disposed in the opening above the shoulder, there being openings in the hopper member leading to the space between the two members, and within the vertical plane of the shoulder, means for rotating one of the members relatively to the other, covers for the openings in the hopper member, and means for securing the covers in a plurality of positions relatively to the openings respectively.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JAMES M. KING.

Witnesses:

M. C. JOHNSTON.

B. C. LAMONT.