A. N. MASSEY.

NUT BRANDING MACHINE.

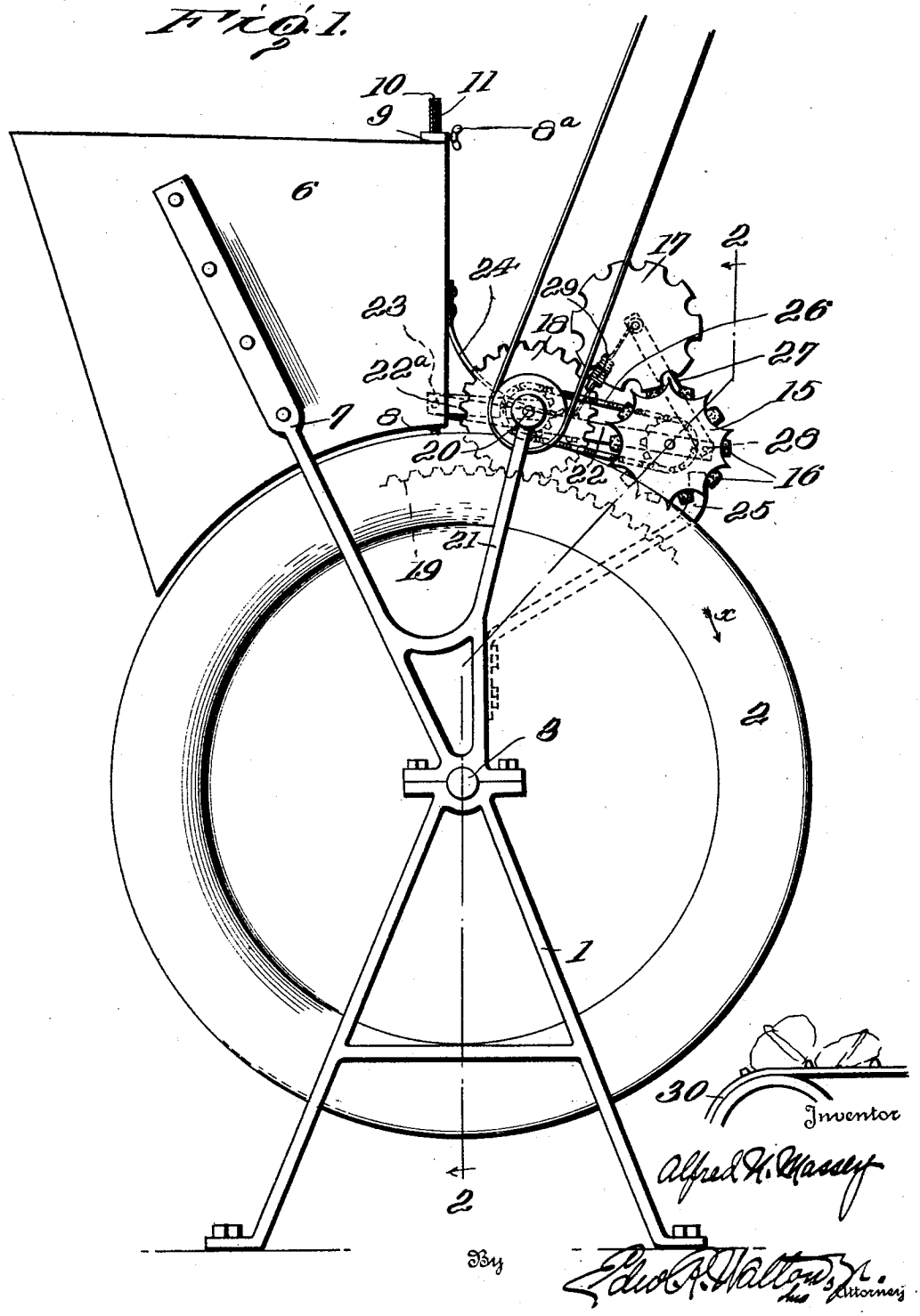
APPLICATION FILED OCT. 29, 1919.

1,403,436.

Patented Jan. 10, 1922.

3 SHEETS—SHEET 1.

Fig. 1.



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3 SHEETS—SHEET 2.

Fig. 2.

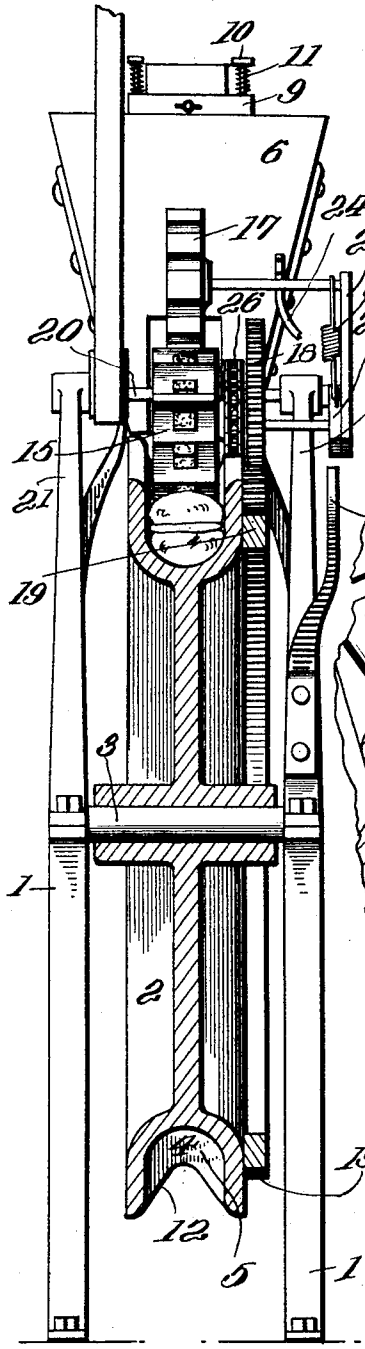


Fig. 3.

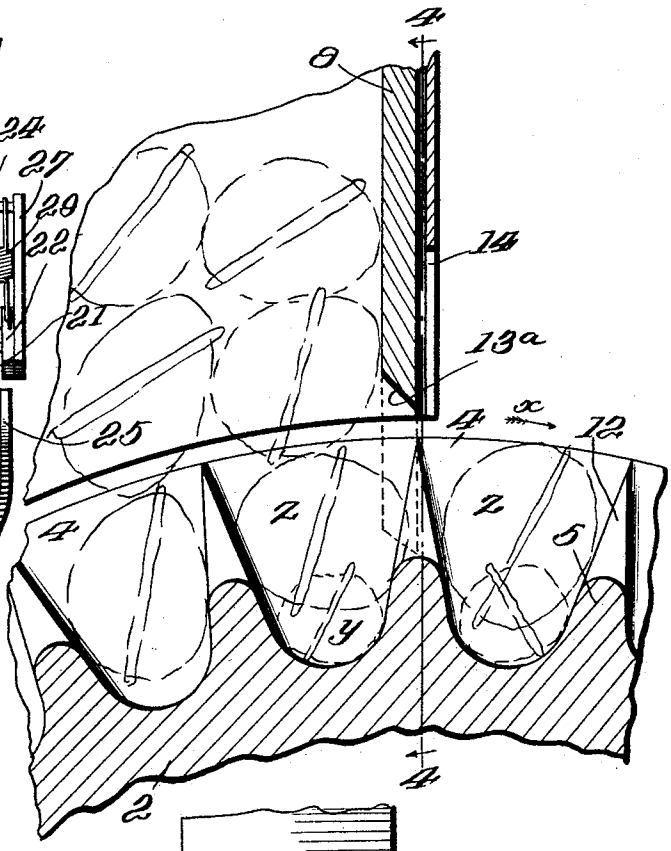
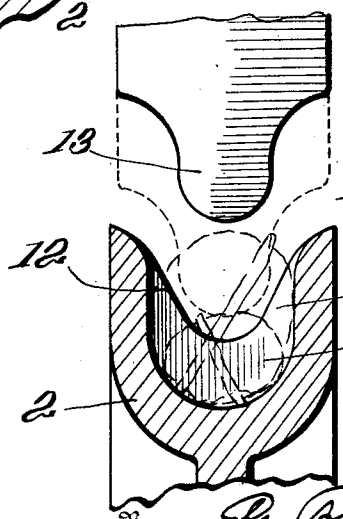


Fig. 4.



Inventor

Alfred N. Massey

By Edw. R. Watters, Esq.

his Attorney

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3 SHEETS—SHEET 3.

Fig. 5.

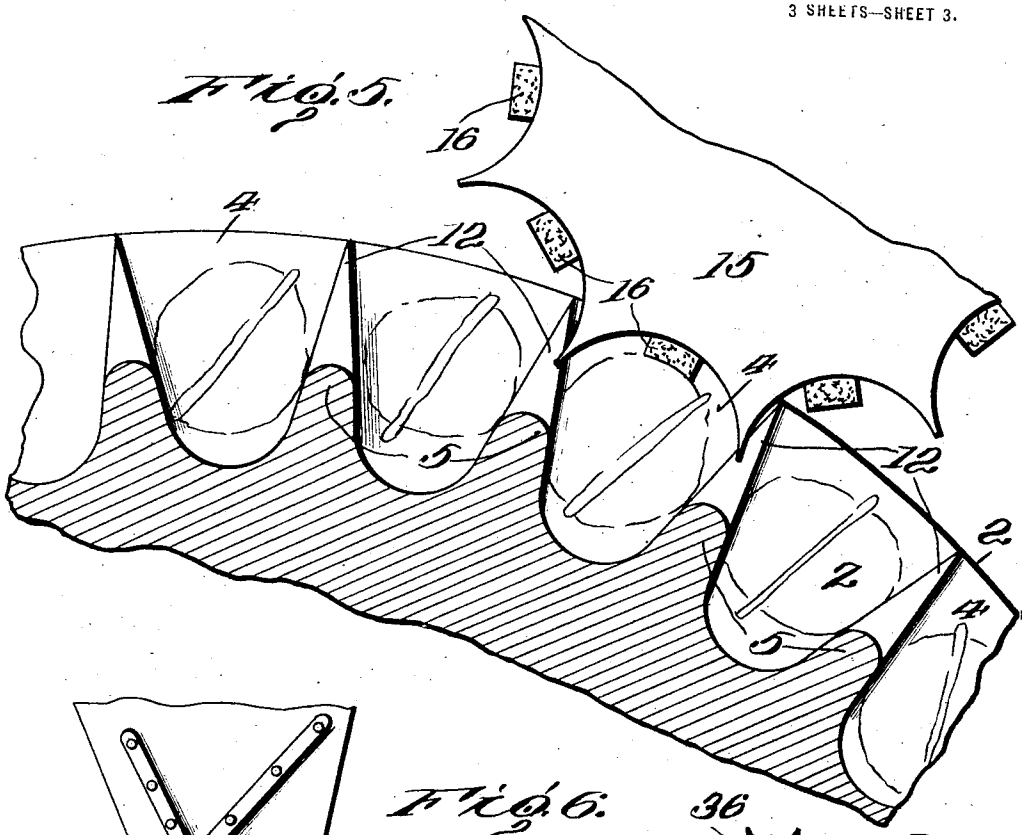
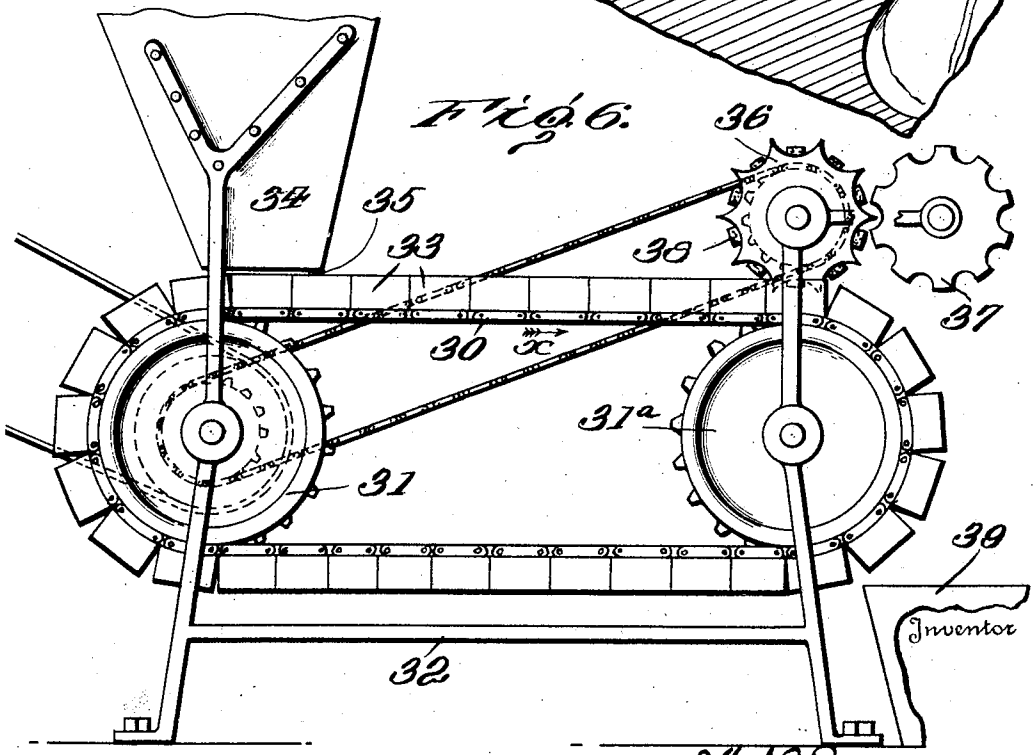


Fig. 6.



Inventor

Alfred N. Massey

By Edwin R. Walton Jr. Attorney

UNITED STATES PATENT OFFICE.

ALFRED N. MASSEY, OF SAN FRANCISCO, CALIFORNIA.

NUT-BRANDING MACHINE.

1,403,436. Specification of Letters Patent. Patented Jan. 10, 1922.

Application filed October 29, 1919. Serial No. 334,135.

To all whom it may concern:

Be it known that I, ALFRED N. MASSEY, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented a new and useful Nut-Branding Machine, of which the following is a specification.

This invention is a machine for stamping or branding nuts.

Heretofore there has been no means by which the origin and quality of nuts could be determined by the consumer unless the nuts were packed in cartons, or the like, which is an expensive and unnecessary manner of handling them.

The main object of the invention is the provision of a simple and cheap machine which will brand or mark nuts, particularly walnuts, automatically with great facility and in great quantities.

With these and other objects in view, the invention further resides in the sundry details of construction and in the combination and arrangement of parts of the machine for carrying out the purposes of the invention hereinbefore more fully described and pointed out in the appended claims.

In the following specification and the accompanying drawings, the invention is illustrated in the form considered the best, but is to be understood that the invention is not limited to such form, because it is capable of being embodied in other forms; and it is also to be understood that in and by the claims following the description it is intended to cover the invention in whatever form it may be embodied.

In the drawings:—

Figure 1 is a side elevation of the nut branding machine,

Figure 2 is a vertical section of the machine on line 2—2 of Fig. 1,

Figure 3 is an enlarged fragmentary vertical sectional view taken through the hopper and feeding wheel to illustrate the formation of the pocket in the periphery thereof and the manner in which the pockets are charged with the nuts,

Figure 4 is an enlarged fragmentary sectional view taken on line 4—4 of Fig. 3,

Figure 5 is a similar view to Fig. 3 showing the stamper in operation, and

Figure 6 is a side elevation of a modified embodiment of the invention.

The embodiment of the machine shown particularly in Figures 1 to 5 inclusive consists, preferably, of a suitable supporting frame 1 arranged on opposite sides of a wheel 2, which is journaled as at 3 on the frames. The periphery of the wheel is channeled and divided into chambers or pockets 4 by transverse partitions 5. Arranged over the periphery of the wheel and in close proximity thereto is a hopper 6 supported by the frames 1 through the bracket arms 7. The hopper is preferably bottomless and has its side walls converged toward the periphery of the wheel so that the discharge opening will lie wholly within the plane of the channel in the wheel. In some instances it may be found desirable to provide the hopper with a bottom formed with a suitable discharge opening.

The wheel receives its motion from a suitable source of power and is, preferably, rotated in the direction of the arrow X and is adapted to receive in its chambers or pockets 4 nuts from the hopper 6 as illustrated in Figure 3. The pockets 4 are preferably formed with a rounded bottom with the side walls converging thereto and of such size that number 2 size or grade of nuts will rest on the bottom of the pockets, this size of nut is approximately from $\frac{3}{5}$ of an inch to an inch in diameter and is indicated by Y in Fig. 3. The pockets are also of such size as to receive in their upper portions number one size or grade of nuts ranging from $1\frac{1}{8}$ to $1\frac{1}{2}$ inches in diameter, as indicated by Z in Figure 3.

In order to prevent more than one nut from entering a pocket at a time from the hopper and in order to prevent the nuts from being crushed during the operation of the machine, a restricter or scraper 8 is arranged at the front end of the hopper. This restricter consists of a strip of suitable material vertically arranged within the hopper and adjacent the front wall thereof and is manually adjustably connected to a cross bar 9 vertically slidably mounted on the studs 10. Compression springs 11 are interposed between the heads of the studs and the cross bar to resiliently maintain the latter in its

lowermost position. It will be readily seen that upon adjusting the position of the restricter 8 by means of the set screw 8ª, the height of the restricter may be regulated with respect to the periphery of the wheel 2, as illustrated by full and dotted lines in Figures 3 and 4. In the dotted line position of the restricter, only one nut of the number 2 grade will be permitted to remain in the pockets 4 as they pass from under the hopper. It will also be noted that the restricter may be adjusted to any position for this purpose according to the size of nut to be stamped. To permit the adjustment of the restricter 8 to the position shown in dotted lines in Figure 3, the upper edge of the transverse partitions 5 are notched or cut away as at 12, as clearly shown in Figures 3 and 4. The restricter 8, which is of substantially the same width as that of the pockets, has its lower end reduced as at 13, in a manner to correspond with the cut away portions 12 in the partitions. The lower edge of this reduced portion 13 is beveled on its inner face as at 13ª so that in the event of a jamming of the nuts in the pockets, the restricter will be lifted against the pressure of the springs 11 and permit the jamming to be relieved through a suitable opening 14 in the lower end of the front wall of the hopper.

As the nuts in the pockets 4 pass from beneath the hopper they are carried by the wheel to a stamping mechanism consisting of a rotary stamp 15.

The stamping means consists of a scalloped or star wheel or disk, the scallops being of substantially the same length as that of the pockets 4 in the wheel 1, each having mounted therein stamps or dies 16 bearing the name of the producer, his trade-mark or any other characterizing symbol or identification to be transferred or imprinted on the surface of the nut. The stamps are supplied with ink by a rotary pad 17 also having a scalloped periphery to mesh or interengage with the rotary stamper 15, the projecting portions of the periphery of the rotary pad 17 reaching the surface of the stamps or dies 16. The pad 17 may be otherwise of any suitable and approved construction.

It will be observed that the hopper 6 and stamping mechanism 15 are arranged, preferably, over the wheel 2 and on opposite sides of the vertical through the wheel 2.

The wheel 2 and the stamping mechanism may be operated by any suitable means which will properly time or synchronize operation of the stamper relative to the pockets in the wheel 2. In the present instance, the wheel 2 is driven by a gear 18 meshing with a gear 19 secured to the side of the wheel, and which gear 18 is mounted on a shaft 20 journaled in bracket arms 21 of the frames 1 and connected to a suitable source of power. The stamper 15 must be moved radially relatively to the periphery of the wheel 2 in order to allow or compensate for the varying sizes of nuts which may be stamped. This is provided for automatically by mounting the rotary stamper 15 on a rocker arm 22 pivotally supported as at 23 to the hopper. A spring 24 exerts a pressure on the arm 22 to maintain the stamper 15 against the periphery of the wheel 2. In order to prevent the stamps 16 from contacting with the bottoms of the pockets 4, a stop 25 may be provided to be normally engaged by the rocker arm and limit the inward movement of the stamper 15. The stamper 15 is actuated from the shaft 20 through suitable gearing, such as a chain 26. The pad 17, is, preferably, mounted over the stamper 15 and is supported in position by arms 27 pivoted at 28 to the rocker arm 22. A tension spring 29 connecting the arms 22 and 27 normally maintains the pad 17 yieldably in engagement with the stamper 15, which will actuate the pad in unison therewith.

It will be apparent that the stamper 15 will automatically adjust itself to properly stamp or brand the nuts according to the size of the nut being stamped, and that after the nuts have been stamped they will be carried around by the wheel 2 until they drop by gravity on conveyor 30 or a suitable receptacle which may be provided.

In Figure 6 a modified form of the invention is shown, wherein the pocketed wheel 2 is dispensed with or replaced by an endless belt 30 training over the pulleys or sprocket wheels 31 and 31ª journaled in the supporting frame 32. The belt carries on its outer surface a series of members 33 which are formed with pockets corresponding exactly with the pockets 4 in the wheel 2. Arranged at one end of the frame and supported over the belt is a hopper 34, corresponding to the hopper 6 in all details and having a restricter 35 for the purposes set forth in the preceding embodiment. The stamping mechanism 36 is arranged, preferably, at the other end of the frame and cooperates with the conveyor 33 to stamp the nuts contained in the pockets thereof in the same manner as above described. The stamping mechanism is supplied with ink or transferring substance by means of the pad or supply element 37 arranged to mesh and cooperate with the stamps 38 of the stamping mechanism. The machine of this embodiment is operated from a suitable source of power suitably connected to drive the sprocket wheel 31. As the nuts are stamped by the mechanism 36 they are caused to drop by gravity from the conveyor into a suitable receptacle 39.

From the foregoing description it will

be clear that applicant has invented a machine that will rapidly and efficiently brand nuts, and it is to be understood that the construction herein shown and described may be varied in details of construction and combination of parts, which variations fall within the scope of the appended claims.

What is claimed is:—

1. A machine for branding nuts comprising a movable member having an endless series of pockets therein, a bottomless hopper associated with said member and having the bottom thereof closed by the said member, whereby the nuts in the hopper will be received in the pockets of said member, a load restricter at the rear end of said hopper arranged substantially at right-angles to the periphery of the member for permitting only one nut to remain in each pocket as the latter passes from the hopper, said restricter being yeildably mounted to move in a direction away from the periphery of the member to ineffective position when undue pressure is exerted thereagainst, and a stamping mechanism associated with said member and arranged to automatically stamp the nuts in the pockets as said member is operated.

2. A machine for branding nuts, a movable member having a series of pockets therein, a bottomless container disposed over the pockets in said member and closed thereby, a load restricter associated with said hopper and with the pockets in said member for regulating the number of nuts received in said pockets, the transverse partitions of said pockets having their upper edges cut away for a distance at points in alinement with the restricter, whereby the restricter may extend for a distance into said member as the latter is operated.

3. In a machine for branding nuts, a movable member having a series of pockets therein, a bottomless container disposed over the pockets in said member and closed thereby, a load restricter associated with said hopper and with the pockets in said member for regulating the number of nuts received in said pockets, the transverse partitions of said pockets having the upper edges cut away for a distance at points in alinement with the restricter, whereby the restricter may extend for a distance into said member as the latter is operated, said restricter being yieldably mounted to become inoperative under a predetermined pressure.

4. In a nut branding machine, a wheel having a series of pockets in the periphery thereof, a container arranged over the wheel and having an opening in the portion overlying the periphery thereof, a restricter associated with the container adjacent one wall thereof and adapted to regulate the number of nuts contained in the pockets as the latter pass from under the container, said restricter having an adjustment radial to said wheel, the transverse partitions of said pockets having notches in their upper edges so as to permit said restricter to extend into the periphery of the wheel when the latter is in operation.

5. In a nut branding machine, a wheel having a series of pockets in the periphery thereof, a container arranged over the wheel and having an opening in the portion overlying the periphery thereof, a restricter associated with the container adjacent one wall thereof and adapted to regulate the number of nuts contained in the pockets as the latter pass from under the container, said restricter having an adjustment radial to said wheel, the transverse partitions of said pockets having notches in their upper edges so as to permit said restricter to extend into the periphery of the wheel when the latter is in operation, and means yieldably supporting said restricter and permitting the same to move outwardly from the periphery of the wheel when the nuts become jammed, said container having an opening in a side wall thereof to be uncovered by the restricter upon the last mentioned movement thereof, whereby the jamming of the nuts will be relieved.

6. A nut branding machine comprising a pair of spaced standards, a wheel arranged between the standards and journaled therein, said wheel having a plurality of pockets in the periphery thereof, a hopper arranged over the periphery of the wheel and supported by said standards, the bottom of said hopper conforming substantially to the contour of said wheel and having the portion thereof overlying the periphery of the wheel formed with a slot, a stamping device arranged over the periphery of the wheel adjacent the hopper, said stamping device comprising a shiftable arm having a rotatable stamper mounted thereon, an ink applying pad arranged to engage the periphery of said stamper and rotatably mounted on an arm pivoted to said first mentioned arm, and means connecting said arms for holding said applying member into engagement with said stamper, a gear secured to said wheel, a drive shaft journaled in said standards and overlying said wheel and means for driving said gear and stamper from said drive shaft.

7. A nut branding machine comprising a pair of spaced standards, a wheel arranged between said standards and journaled thereon, the periphery of said wheel being formed with a plurality of nut receiving pockets, a hopper supported by said standards arranged over the periphery of the wheel at one side of a vertical line through the axis of the wheel, the bottom of said hopper conforming substantially to the periphery of the wheel and the portion thereof overlying the wheel formed with a slot to discharge

the nuts therethrough, a nut stamping device arranged over the periphery of the wheel and at the other side of said vertical line said stamping device including a movable stamper, said pockets in the wheel being adapted to travel from the hopper to the said stamping device when the wheel is rotated and to have the nuts discharged therefrom by gravity, after being stamped.

8. A nut branding machine comprising a pair of spaced standards, a wheel arranged between the standards and journaled therein, said wheel having a plurality of pockets in the periphery thereof, a hopper arranged over the periphery of the wheel and supported by said standards, the bottom of said hopper conforming substantially to the contour of said wheel and having the portion thereof overlying the periphery of the wheel formed with a slot, a stamping device arranged over the periphery of the wheel adjacent the hopper, said stamping device comprising a shiftable arm having a rotatable stamper mounted thereon, an ink applying pad arranged to engage the periphery of said stamper, and means for holding said applying member into engagement with said stamper, a gear secured to said wheel, a drive shaft journaled in said standards, and means for driving said gear and stamper from said drive wheel.

9. A machine for branding nuts comprising a movable member having an endless series of pockets therein, a hopper having an opening in the bottom thereof associated with said member whereby the nuts in the hopper will be received in the pockets of said member, a load restricting member associated with said wheel for permitting only one nut to be received in each pocket as the member passes over the hopper, said restricter being adjustable to positions for rendering it operatable with nuts of selected size, said restricter also being mounted to automatically move from effective operative positions when undue pressure is exerted thereagainst, and a stamping mechanism associated with said member and arranged to automatically stamp the nuts in the pocket as said member is operated.

10. A machine for branding nuts, a movable member having a series of pockets therein, a bottomless container disposed over the pockets in said member and closed thereby, a load restricter associated with said hopper and with the pockets in said member for regulating the number of nuts received in said pockets, the transverse partitions of said pockets having their upper edges cut away for a distance at points in alinement with the restricter, whereby the restricter may extend for a distance into said member as the latter is operated, said restricter being adjustable to positions rendering it operatable with nuts of selected size.

In testimony whereof I have hereunto set my hand.

ALFRED N. MASSEY.