

980,795.

2 SHEETS—SHEET 1.



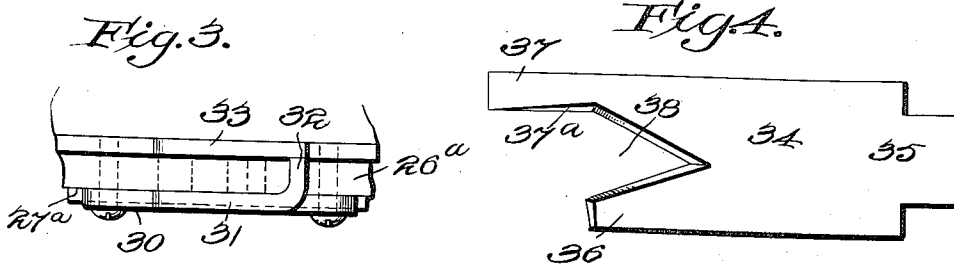
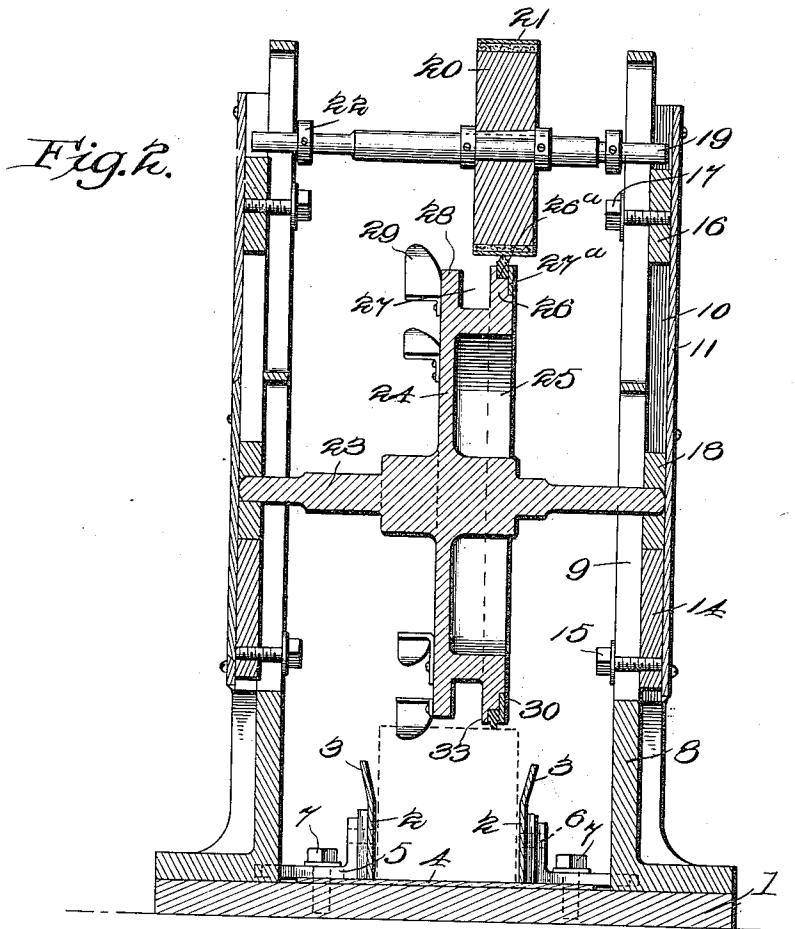
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J. J. KIRKBY
CAN MARKING MACHINE.
APPLICATION FILED JAN. 20, 1909.

980,795.

Patented Jan. 3, 1911.

2 SHEETS—SHEET 2.



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UNITED STATES PATENT OFFICE.

JACQUES J. KIRKBY, OF NORWICH, NEW YORK, ASSIGNOR TO BORDEN'S CONDENSED MILK CO., OF NEW YORK, N. Y., A CORPORATION OF NEW JERSEY.

CAN-MARKING MACHINE.

980,795.

Specification of Letters Patent.

Patented Jan. 3, 1911.

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To all whom it may concern:

Be it known that I, JACQUES J. KIRKBY, a citizen of the United States, residing at Norwich, in the county of Chenango and State of New York, have invented certain new and useful Improvements in Can-Marking Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in stamping or marking machines and is especially designed as a machine for marking cans.

The primary object of the invention is to provide a machine operating in conjunction with a conveyer from the can capping or sealing machine, whereby a constant feed of the sealed cans is directed to the marking machine, through which they are fed and automatically stamped or marked during their passage therethrough.

Another object is the provision of the adjustable mountings of the operating parts, whereby the machine may be used with different sized cans.

Other objects and advantages reside in the details of construction and the general arrangement of parts, the whole being clearly set forth in the following description, and the particular features of novelty being more distinctly pointed out in the claims.

While the invention is not restricted to the exact details shown and described, still for the purpose of disclosure reference is had to the accompanying drawings, showing the preferred embodiment of same.

In the drawings the same parts are designated by the same letters in the several views.

Figure 1 is a view in side elevation of the complete machine, portions of the outside plate of one of the uprights or standards being broken away to show the adjustable mountings of the operating wheels, and also showing a portion of the means for conveying the sealed cans to the marking machine. Fig. 2 is a central transverse vertical section. Fig. 3 is a fragmentary plan view showing the type holder and its position on the printing wheel, and Fig. 4 is a local plan view of a picker or guide plate.

1 designates a suitable base provided with

a laterally adjustable run-way, said run-way formed from a pair of side walls 2, extending longitudinally of the base, and flaring outwardly at their upper edges, as at 3. Between the base proper and the side walls 2 of the trough, may be disposed a bottom plate 4, which projects considerably beyond both ends of the main base. The side walls are held adjustably in position by means of the angle bars 5, the side walls of the run-way being secured to the vertical arms of the angle bars by any suitable means, such as rivets or screws indicated in dotted lines at 6 (Fig. 2), and the horizontal arms are slotted to receive the securing bolts 7.

Centrally of the base and bolted or otherwise suitably secured thereto, are arranged the uprights or standards 8, consisting of the U-shaped, elongated side posts 9, provided with the laterally extending flanged portions 10, adapted to receive the face plate 11, the whole forming slotted standards for receiving the bearings of the inking and printing wheels. The flanged portions 10 of these uprights form a channeled portion to receive the bearing blocks, as indicated at 12 (Fig. 1), which channeled portion is of greater width than the space or slot formed between the U-shaped posts, as indicated at 13 (Fig. 1), through which latter pass the axles of the printing and inking wheels and the adjustment bolts for the bearing blocks.

14 designates a pair of blocks disposed in the channels 12 and vertically adjustable by means of the set screws or bolts 15, and 16 are similar blocks similarly mounted and held by the bolts 17. On top of the blocks 14 are disposed the bearing blocks 18 for the printing wheel, and the ends of the shaft 19 of the inking wheel normally rest on the blocks 16 when the inking wheel is out of engagement with the type, but which are raised above said block 16 when the inking wheel is in engagement with the type, as shown in Fig. 2.

The inking wheel is designated at 20 and may be of any suitable form provided with the padded surface 21, which may be inked by any suitable means. The collars 22 on the shaft 19 are provided to maintain the inking wheel in proper position.

The printing wheel performs the double function of carrying the type or other marking medium and also carrying fingers alter-

nating with the type holders and operating to feed the wheel and at the same time hold the can in proper relation with the type as the type comes into engagement with the can. The wheel itself, as shown, consists of a solid hub, provided with spindles 23, supported in the bearing blocks 18, and with the radial web 24 and the annular web 25, extending laterally adjacent the outside edge of the web 24 and provided with the radial flanged portion 26, forming a recess 27 with the projecting portion 28 of the web 24. To the outside face of this projecting portion 28 are affixed the feed fingers 29, which may be of the contour shown, and on the opposite projection or radial flange 26 are arranged the type.

In order to provide an easy means for securing the type in position, the flanged portion 26 is cut away annularly, forming the shoulder 26^a to receive the type, preferably of rubber, and it is further recessed, as at 27^a, to receive the vertical plate of the type holder. The construction of this type holder is shown more clearly by reference to Figs. 1 to 3, and consists of the flat plate 30, secured in the recess 27^a, provided with the central enlargement 31, bent laterally as at 32, and engaging a raised portion 33, formed on the inner edge of the annular flange 26. By this particular form of type holder, it can be seen that the rubber type may be readily inserted, and as the wheel revolves in the direction indicated by the arrow, the bent over portion 32 prevents the type from being shoved out of position.

34 designates the guide plate shown in detail in Fig. 4. This guide plate consists of a flat rectangular plate, having a tongue 35 at one end adapted to be inserted between the walls 2 of the run-way, and at its other end provided with the short and long beveled legs or projections 36 and 37, formed by the triangular shaped recess 38, the edges of the legs being beveled as shown.

39 represents a portion of a roller carrying a conveyer belt 40, provided with lugs 41, and adapted to receive a can in front of said lugs.

In operation as the cans are delivered from the sealing machine to the conveyer belt, they are fed forward to the marking machine, and when the lower side edge of the can strikes the long leg 37, it glides along the beveled edge 37^a until the short leg is engaged by the can, whereupon the can is picked up by the guide plate 34 and is shoved therealong, while the lug 41 passes around the roller 39. The next can pushing on the preceding one, automatically feeds the cans forward in intermittent steps, and as each can gets to the printing roller one of the fingers 29 is interposed between the two

adjacent cans, and as another can is fed on the guide plate 34, the series is pushed forward, the type comes in contact with the top of the can, the finger holding the can in proper position, and the can is fed away from the type as the next can approaches. The fingers 29 are spaced laterally from the type so that they will readily insert themselves between the oppositely disposed circular tops of the can, which they would not do if they were located centrally of the wheel. As each set of type comes around, they are inked by the inking roller and the operation is automatically carried on indefinitely. It will also be observed that by the arrangement of the adjustable run-way the same may be adjusted to suit cans of different diameters, and by the arrangement of the adjustable wheels the machine may be adjusted to suit cans of different heights.

Having thus described the invention, what I claim is:—

1. In a can marking machine, the combination of a runway consisting of an imperforate base plate and laterally adjustable side walls, and a vertically adjustable marking wheel rotatably supported above said runway, said marking wheel being provided with spacing fingers, and the whole arranged to adapt the machine for use with different sized cans, substantially as described.

2. In a can marking machine, a marking wheel provided on its periphery with annular flanges, the outside face of one of said flanges being provided with a plurality of feed fingers and the other of said flanges being provided with a plurality of type holders alternating with said feed fingers, substantially as described.

3. In a can marking machine, a printing wheel annularly recessed on one face and co-operating with a plurality of type holder plates, consisting of a flat plate provided with an enlarged central portion, bent over laterally to extend across said annular recess, substantially as described.

4. In a can marking machine, the combination of a run-way, a printing wheel, means for feeding the cans to said run-way, and picking-up means for said cans, comprising a guide plate having one end projecting within said run-way and having its other end provided with a cut away portion forming a short and a long leg provided with beveled edges, substantially as described.

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

JACQUES J. KIRKBY.

Witnesses:

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HUBERT L. BROWN.