

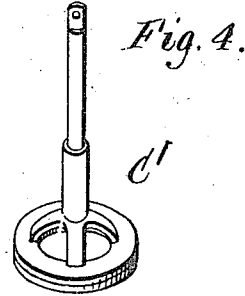
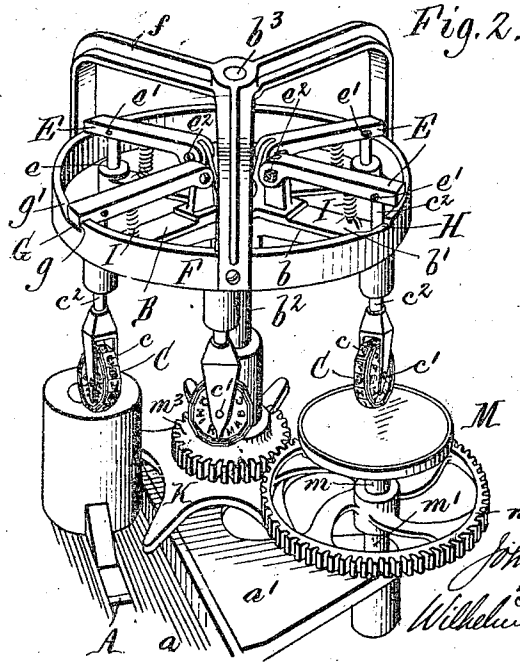
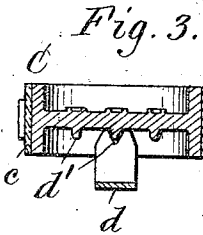
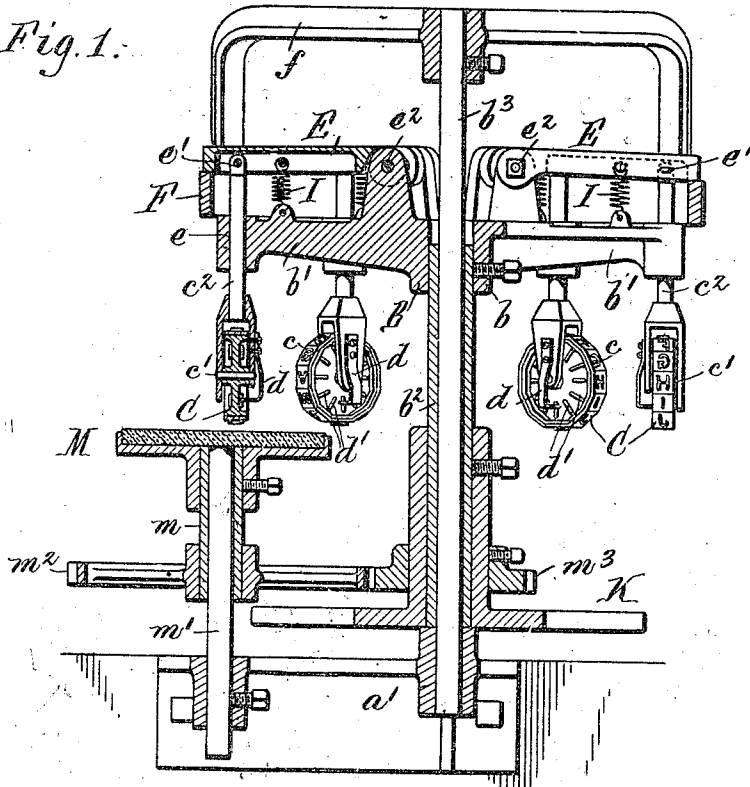
J. F. WHITE.
CAN STAMPING MACHINE.
APPLICATION FILED FEB. 26, 1906.

1,006,814.

Patented Oct. 24, 1911.

2 SHEETS—SHEET 1.

Fig. 1.



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2 SHEETS—SHEET 2.

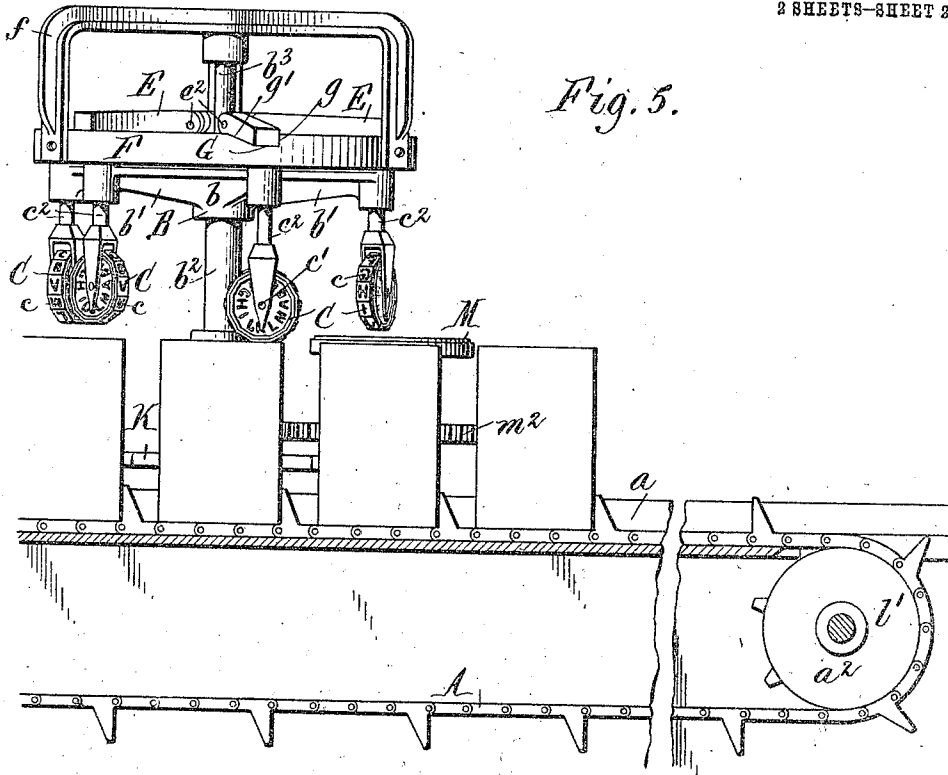


Fig. 5.

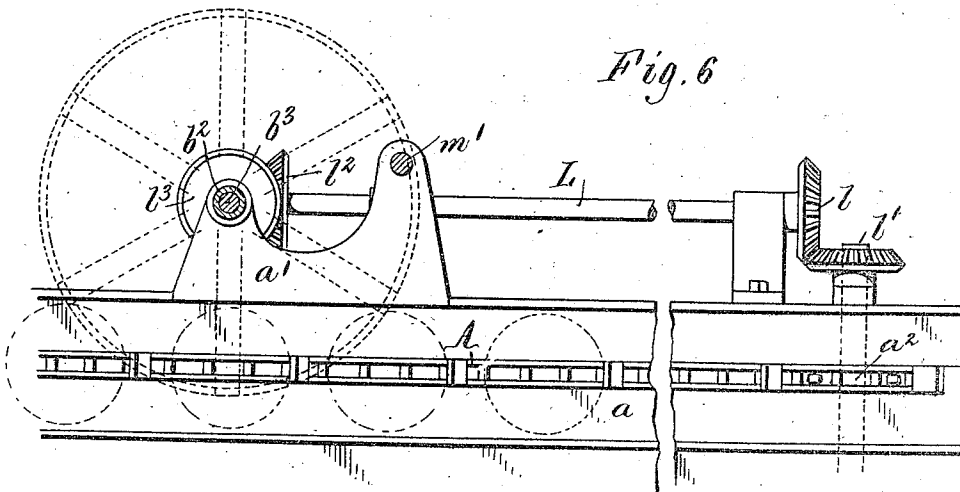


Fig. 6.

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UNITED STATES PATENT OFFICE.

JOHN F. WHITE, OF MOUNT MORRIS, NEW YORK.

CAN-STAMPING MACHINE.

1,006,814.

Specification of Letters Patent.

Patented Oct. 24, 1911.

Application filed February 26, 1906. Serial No. 302,887.

To all whom it may concern:

Be it known that I, JOHN F. WHITE, a citizen of the United States, residing at Mount Morris, in the county of Livingston and State of New York, have invented a new and useful Improvement in Can-Stamping Machines, of which the following is a specification.

This invention relates to machines for marking or stamping cans and other receptacles or articles. While the machine hereinafter described is designed more especially for printing characters on the ends of filled cans whereby the contents of different cans are indicated, the invention is not necessarily restricted to machines for such purpose.

The object of the invention is to provide a machine of simple and desirable construction capable of rapidly marking cans or other articles as they are moved past the stamping mechanism by a traveling conveyer.

In the accompanying drawings, consisting of two sheets: Figure 1 is a fragmentary transverse sectional elevation of a stamping machine embodying the invention. Fig. 2 is a perspective view thereof, on a reduced scale. Fig. 3 is a detail section of one of the stamps. Fig. 4 is a perspective view of a detached stamp for use in the machine in place of the stamps shown in the other figures. Fig. 5 is a front elevation, partly in section, of the machine, on a reduced scale. Fig. 6 is a plan view partly in section, on a reduced scale, showing different means for driving the stamp carrier.

Like letters of reference refer to like parts in the several figures.

The machine comprises, briefly stated, a traveling conveyer for the cans, or other articles, a series of stamps or marking devices, an inking pad or device, and means whereby the stamps are successively moved opposite to and pressed against the inking pad to receive ink and are then carried to a position opposite to the path of movement of the cans or articles and pressed in succession against the successive cans or articles to

make the impressions, and retracted to repeat the same functions. The stamps are moved in unison with the articles by means engaged and actuated by the articles, or by suitable mechanism connecting the article conveyer and stamps.

A represents the conveyer or carrier for the cans or other articles to be marked. This conveyer may be constructed and operated in any suitable manner. In the machine illustrated the cans or articles are supported by a stationary table or guide way on a suitable frame a' , and the conveyer consists of an endless chain or belt provided with dogs which project up through a slot in the table to engage and move the cans or articles along the same. The conveyer can be driven either intermittently or continuously by a wheel a^2 around which it passes, or by other means.

B represents a movable carrier or supporting head for a series of stamps C. The carrier preferably consists of a spider b having radiating arms b' , each carrying one of the stamps, the carrier being so located above the article conveyer that in the rotation of the carrier the stamps are brought in succession to printing position over the successive articles in the conveyer. The carrier is movably mounted, preferably rotatably, in any suitable manner, for instance, it is secured to the upper end of a sleeve or hollow shaft b^2 which surrounds and rotates on a stationary vertical spindle b^3 , which is fixed to and rises from the frame a' of the machine or other suitable support.

The stamps C, in the construction shown in Figs. 1, 2 and 5, consist of typewheels which are provided around their peripheries with type c and are journaled in any suitable manner at c' on vertical stems or rods c^2 so that the wheels can be turned to place any desired type thereon at the bottom of the wheel, where it can print upon the top of the article by depressing the wheel when in printing position. The wheels are releasably held from turning when adjusted by suitable means, for example, by

spring fingers d secured to the stems or rods c^2 and adapted to yieldingly engage stop projections d' on one face of the wheels, see Figs. 1 and 3. The stems or rods of the stamps preferably pass through guide holes e in the arms of the carrier in which they are adapted to slide lengthwise or vertically and are connected at their upper ends at e' to operating levers E which are pivoted at their inner ends at e^2 to lugs or parts on the rotary carrier B and rest and slide at their outer ends on a stationary circular track F . The track can be supported, as shown, by a skeleton frame f fixed to the upper end of the spindle b^3 on which the carrier rotates, or in any other desired manner. This track E is provided at a point over the can or article conveyer A with a notch or depression G having an abrupt vertical face g and an inclined or cam face g' , the location of the notch being such that each operating lever is brought opposite to the notch by the rotation of the carrier B and will drop into the same over the abrupt face at the time when the stamp connected to the lever is in printing position over an article in the conveyer, thus permitting the stamp to descend and make the impression on the article. The operating arm E will then engage and ride up the inclined face of the notch onto the horizontal upper face of the track. The track F is provided with a second notch or depression H , similar to G , located in a suitable point to allow the descent of the stamps against an inking pad or device, to be described, as they are brought successively over the same by the rotation of the carrier. The stamps are preferably forcibly lowered or pressed down to insure proper impressions by suitable means, such as springs I connecting the operating levers F and arms of the rotary carrier B .

In the construction shown in Figs. 1, 2 and 5 the carrier is rotated to move the stamps in unison with the articles to be printed by the engagement of the articles themselves with the arms of a star wheel K secured to the lower end of the hollow carrier shaft b^2 with its arms projecting over the conveyer A in the path of the articles carried thereby. As the cans or articles move along they engage the arms of the wheel and turn the same and the carrier so that a stamp is brought around into printing position directly over each can or article when it reaches the printing position. By thus actuating the carrier through the instrumentality of the articles, it is moved one step by each article to effect the printing of the same, but remains at rest in the event that an article is not presented by the conveyer to the stamping mechanism.

Fig. 6 illustrates other means for operating the stamps in unison with the cans or

articles but by means other than the article itself connecting the conveyer and the actuating device for the stamp carrier. The connecting mechanism shown in this figure, by way of example, consists of a shaft L connected by bevel gears l to the shaft l' carrying the conveyer drive wheel a^2 and provided with a bevel gear l^2 which meshes with a bevel gear l^3 which is secured to the hollow shaft b^2 of the carrier and replaces the star wheel K shown in the other construction.

M represents the inking device which preferably consists of a horizontal ink-saturated pad on a disk supported below the path of the stamps in position to be engaged by the stamps when they are lowered by the dropping of their operating levers E into the notch or depression H of the circular track F . The disk is rotated horizontally to present different parts of the pad to the stamps and prevent a local wearing or drying of the pad, the disk in the construction illustrated being secured to a hollow vertical shaft m which is supported and turns on a stationary spindle m' fixed to the frame a' of the machine. The disk is rotated by intermeshing gears m^2 m^3 secured to the shaft m and to the hub of the actuating star wheel for the rotary carrier. The inking device could be mounted and moved by any other suitable means.

Obviously the wheel stamps C described could be replaced by stamps of a different form adapted to the particular form of the articles to be printed or for making special impressions. In Fig. 4, for instance, a ring-shaped stamp C' is shown which is provided with a stem for mounting it in the carrier in the same manner as the other stamps. The wheel stamps can be replaced by stamps of this or other form.

The operation of the machine is as follows: The cans or other articles are placed on the table a and moved by the conveyer A past the stamp carrier. The latter is rotated by the engagement of the articles with the arms of the star wheel K or by gearing connected with the conveyer, as explained. As the carrier rotates, each stamp is brought over the inking pad and pressed down against the same and inked and is then again raised and moved to the printing position over an article on the conveyer, and when in this position, the actuating lever E therefor drops into the notch G of the track F and the stamp is pressed against the top of the article to make the impression. The stamp is again immediately lifted off of the article by reason of its actuating lever riding upon the inclined face g' of the notch G , so that a clean sharp impression is left even though the conveyer and article are not arrested in the printing position. The

stamps are thus successively inked and pressed against the successive articles on the conveyer to mark each article.

I claim as my invention:

5 1. The combination of a conveyer for the articles to be stamped, an inking device, a stamp, means controlled by the movement of the conveyer for moving the stamp to place it opposite to the inking device and
10 opposite to the article, and means for moving the stamp into contact with the inking device to receive ink and for producing a relative movement of the stamp and article toward each other to make the impression,
15 substantially as set forth.

2. The combination of a conveyer for the articles to be stamped, a series of stamps, a carrier therefor, means controlled by the movement of the conveyer for moving said
20 carrier to place the stamps in printing position opposite the articles, and means for moving the stamps against the articles to make the impressions, substantially as set forth.

25 3. The combination of a conveyer for the articles to be stamped, an inking device, a stamp, means controlled by the movement of the conveyer for moving the stamp to place it opposite to the inking device and
30 opposite to the article, and means for moving the stamp into contact with the inking device to receive ink and with the article to make the impression, substantially as set forth.

35 4. The combination of a conveyer for the articles to be stamped, an inking device, a stamp, means controlled by the movement of the conveyer for moving the stamp parallel with the plane of movement of the
40 articles to place the stamp opposite to the inking device and opposite to the article, and means for producing a relative movement of the stamp and inking device toward each other to ink the stamp and of the stamp
45 and article toward each other to make the impression, substantially as set forth.

5. The combination of a conveyer for the articles to be stamped, an inking device, a stamp, means controlled by the movement
50 of the conveyer for moving the stamp parallel with the plane of movement of the articles to place the stamp opposite to the inking device and opposite to the article, means for moving the stamp against the inking device to receive ink, and means for
55 moving the stamp against the article to make the impression, substantially as set forth.

6. The combination of a conveyer for the articles to be stamped, an inking device, a
60 stamp, means controlled by the movement of the conveyer for moving the stamp to place it opposite to the inking device and opposite to the article, a track which controls the position of the stamp and which

is constructed to allow the stamp to move 65 toward the inking device and article when opposite to the same, and means for pressing the stamp against the inking device and article, substantially as set forth.

7. The combination of a conveyer for the 70 articles to be stamped, an inking device, stamps, a carrier for the stamps arranged above the conveyer and inking device, means controlled by the movement of the conveyer for moving said carrier to place the stamps 75 over the articles, a track for holding the stamps in a plane above the articles and inking device and having depressions opposite to the conveyer and inking device formed to allow the stamps to descend against the 80 inking device and articles and to again raise the stamps, substantially as set forth.

8. The combination of a conveyer for the articles to be stamped, an inking device, stamps, a carrier for the stamps arranged 85 above the conveyer and inking device, means controlled by the movement of the conveyer for moving said carrier to place the stamps opposite to the articles, a track for holding the stamps in a plane above the articles and 90 inking device and having depressions opposite to the conveyer and inking device provided with abrupt and inclined faces, levers pivoted to said carrier and connected to the stamps, and springs connecting said levers 95 and carrier for forcibly depressing the stamps, substantially as set forth.

9. In a machine for the purpose indicated, in combination with a rotary marker carrier, markers pivoted to the carrier for up- 100 and-down movement, an abrupt shouldered marker-tripping cam fixed with respect to the axis of the carrier movement, and a positioning device for the articles to be marked, rotating with the carrier, comprising posi- 105 tioning arms, one for each marker.

10. In a machine for the purpose indicated, in combination with a marker mounted for up-and-down movement, a rotary carrier for such marker and means for giving it 110 the marking movement, a spoked wheel or spider rigid with the rotary carrier, and a feeding device for the articles to be marked positioned for advancing them past the axis of rotation into engagement with the spokes 115 or arms of said spoked wheel or spider.

11. In a machine for the purpose indicated, in combination with a marker carrier mounted for rotation, a plurality of markers pivoted to the carrier for up-and- 120 down movement, means for tripping the markers as the carrier rotates, a feeding device for advancing the articles to be marked past the axis of rotation, and a spoked wheel or spider rigid with the rotary carrier 125 having its spokes or arms projecting over the feeding device into the path of the articles carried by the latter for encounter

with said articles to communicate the rotary motion from the travel of the feeding device.

12. The combination of a conveyer for the
5 articles to be stamped, a series of stamps, a carrier therefor, means controlled by the movement of the conveyer for moving said carrier to place the stamps in printing position opposite the articles, and means for ac-

tuating the stamps to mark the articles at that position.

Witness my hand, this 21st day of February, 1906.

JOHN F. WHITE.

Witnesses:

JOHN E. PHILLIPS,

I. NEWTON WHITE.