R. A. HUTCHISON.

CAN STRAIGHTENING MACHINE.

APPLICATION FILED JUNE 10, 1908.

912,377. Patented Feb. 16, 1909.

Fig. 3.

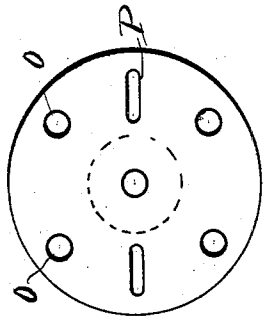


Fig. 4.

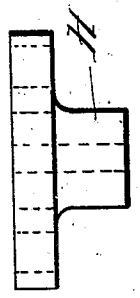


Fig. 5.

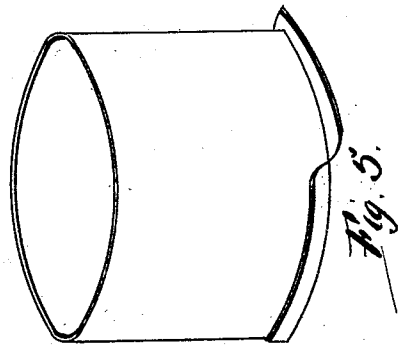


Fig. 1.

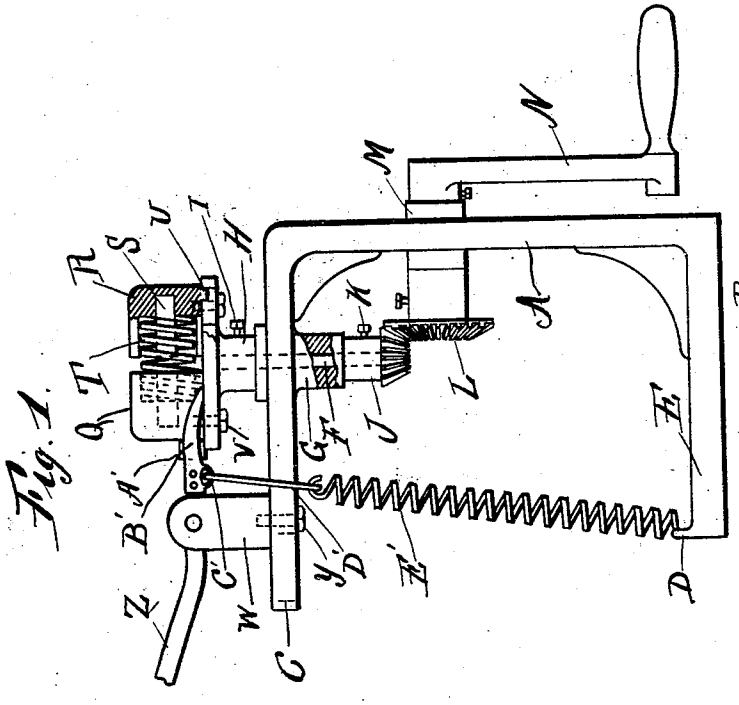
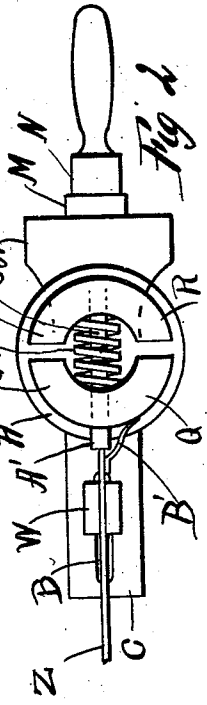


Fig. 2.



WITNESSES:

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CAN-STRAIGHTENING MACHINE.

No. 912,377. Specification of Letters Patent. Patented Feb. 16, 1909.

Application filed June 10, 1908. Serial No. 437,635.

To all whom it may concern:

Be it known that I, ROBERT A. HUTCHISON, a citizen of the United States, residing at Salem, county of Salem, and State of New Jersey, have invented a certain new and useful Improvement in Can-Straightening Machines, of which the following is a specification.

My invention relates to a new and useful improvement in can straightening machines, and has for its object to provide an exceedingly simple and effective device of this character whereby a can whose lip is turned up or whose mouth is crooked may be straightened by placing the can upon the machine and turning the crank.

With these ends in view, this invention consists in the details of construction and combination of elements hereinafter set forth and then specifically designated by the claims.

In order that those skilled in the art to which this invention appertains may understand how to make and use the same, I will describe its construction in detail, referring by letter to the accompanying drawing forming a part of this specification, in which—

Figure 1 is a side elevation of the machine showing the head block in section. Fig. 2 a plan view thereof. Fig. 3, a similar view of the removable plate to which the head block is fastened. Fig. 4, a side elevation thereof, and, Fig. 5, a view of the can showing the lip, part of which is turned and the other part down.

In carrying out my invention as here embodied, A represents a frame, which may be cast in one piece having a slot B formed in the upper arm C thereof, and a catch D on the lower arm E.

F represents a shaft placed in the bearing G formed with the frame, and on the upper end of this shaft is placed the detachable plate H which is held to said shaft by means of the set bolt I. To the lower end of this shaft F is detachably secured the pinion J, by means of the set bolt K, said pinion engaging with the gear L, which is detachably secured to the shaft, passing through the bearing M formed with upright portions of the frame.

N indicates a crank handle which is detachably secured to the opposite end of the shaft to which the gear L is fastened. The detachable plate H has formed in it suitable bolt receiving openings O and slots P.

Q and R represent two semi-circular blocks, which together form the head block. From the inner surface of these semi-circular blocks are formed the projections S, around which the spiral spring T is adapted to pass and rest against the inner surface of said semi-circular blocks for consistently keeping them apart. On these blocks is formed the lug U which engages with the slots P formed in the detachable plate, so as to enable the block which slides to move straight in reference to the center; the other block is held stationary, centered by suitable bolts V, being threaded into it through the bolt receiving openings O formed in the detachable plate.

W indicates a bracket, and Y a bolt threaded in the lower end thereof which passes through the slot B formed in the upper arm of the frame; thus it will be seen that said bracket may be moved from one side to the other, within the limits of the slot. In the bracket W is pivoted the lever Z, on the end of which is movably secured the roller A′, which is adapted to rest upon the lip of the can, when said can is placed upon the head block. In proximity to its lower end to the lever Z is attached the blade B′. On the inner side of the lever is fastened the staple C′, into which hooks one end of the rod D′, the other end of said rod fastened to one end of the spring E′, the other end of this spring being hooked in the catch D formed with the lower arm E. The spring E′ is adapted to draw the roller A′ into contact with the lip of the can.

In practice, a can, the mouth of which is out of shape or the lip turned up against the body of the can, is placed upon the head block. The spring T pressing against the two parts of the head block will cause the can to be straightened or brought to a circle formed by the said two parts of the head block. When the can is placed upon the head block it is inverted and pressed down until the top thereof comes in contact with the plate H, at which time the lever Z is moved upward until the end on which the roller A′ and the blade B′ is fastened assumes the position in Fig. 1. The blade B′ is inserted between the lip and the body of the can, then the crank handle N is turned, causing the plate H, the head block, and the can thereon, to rotate, and these movements will cause the blade B′ to bend the lip away from the body of the can, when the roller A

being behind the knife will flatten said lip; the action from the can by the blade B, the roller A′, is clearly illustrated by Fig. 5.

Of course I do not wish to be limited to the exact details of construction here shown, as these may be varied within certain limits without departing from the spirit of my invention.

Having thus fully described my invention what I claim as new and useful is—

1. In a can straightening machine, the frame having a slot formed in the upper arm of said frame, suitable bearings formed with said frame, a catch formed with the lower arm of said frame, a shaft, a detachable plate secured to one end thereof having bolt receiving openings, and slots formed therein, a set bolt for holding said plate to the shaft, a pinion secured to the opposite end of said shaft, a set bolt for holding said pinion on said shaft, a gear wheel engaging with the teeth on said pinion, a crank handle for turning said gear, blocks, semi-circular in shape, movably and detachably secured to the detachable plate, projections formed on the inner surface of said blocks, a spiral spring adapted to pass around said projections, and rest against the inner surface of said blocks, a sliding bracket, a bolt passing through the slot formed in the upper arm, then threaded into the sliding bracket for holding said sliding bracket to the frame, and permitting it to slide from side to side within the limits of the slot, a lever pivoted to said sliding bracket, a roller movably secured to one end of said lever, a plate also secured to said lever in proximity to the roller, a staple fastened to the lever on the inner surface thereof, a rod having hooks formed on either end thereof, one end attached to the staple, a spring, one end attached to the rod, the other end to the catch formed on the lower arm of the frame, as shown and described.

2. The herein described combination of a frame having an upper and lower arm, said upper arm having a slot cut therein, a detachable plate, a head block formed of two semi-circular blocks mounted on said plate, projections formed with said blocks, means for pressing the blocks away from one another, means for rotating said detachable plate and blocks, a sliding bracket movably secured to the upper arm, a lever pivoted thereto, a roller fastened to the inner end of the lever, a blade also secured to the inner end of the lever in proximity to the roller, and means for holding said blade and roller in contact with the lip of a can when placed upon the head block, as specified.

3. In a can straightening machine, a frame, a head block formed of two semi-circular blocks mounted on the frame, a spring for keeping said blocks apart, means for rotating said head block, a sliding bracket movably secured to the frame, a roller movably secured to the lever, a blade also secured to said lever, and means for bringing and holding said blade and roller in engagement with the lip of a can when placed upon the head block, as and for the purpose set forth.

In testimony whereof, I have hereunto affixed my signature in the presence of two subscribing witnesses.

ROBERT A. HUTCHISON.

Witnesses:
WILLIAM CARNEY,
D. HARRIS SMITH.