

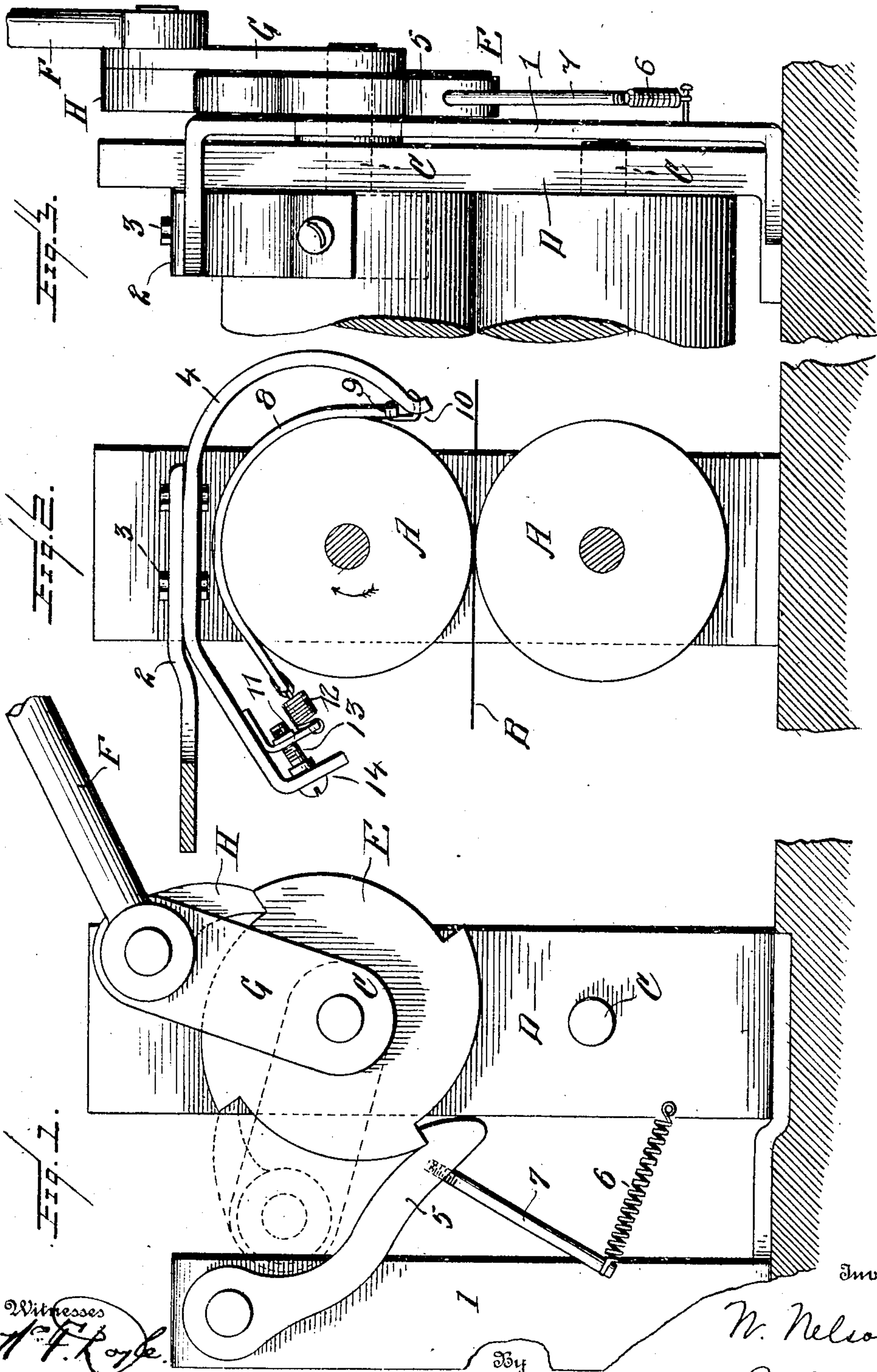
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N. NELSON.

SOLDER FEEDING MECHANISM FOR CANNING MACHINES.

APPLICATION FILED MAY 11, 1907.



Inventor

W. Nelson

C. L. Parker

Attorney

Witnesses

W. F. Royle.

Myron G. Clear

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UNITED STATES PATENT OFFICE.

NATHANIEL NELSON, OF CHICAGO, ILLINOIS.

SOLDER-FEEDING MECHANISM FOR CANNING-MACHINES.

No. 869,510.

Specification of Letters Patent.

Patented Oct. 29, 1907.

Application filed May 11, 1907. Serial No. 373,078.

To all whom it may concern:

Be it known that I, NATHANIEL NELSON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Solder-Feeding Mechanisms for Canning-Machines, of which the following is a specification.

My invention relates particularly to an improved mechanism for feeding a thin sheet of solder to a die or stamp for the purpose of cutting rings therefrom, adapted to be fed upon the can lid and then to the can itself when heat is applied to melt the solder ring and secure the lid.

My invention particularly resides in the provision of a pair of rollers, one of which is provided with a ratchet, a reciprocating arm provided with a pawl adapted to operate the said ratchet, a locking dog for preventing reverse movement of the solder strip, and a novel and adjustable strap brake for preventing the reverse rotation of the rollers when said arm is reciprocated.

My invention further resides in the following features of construction and arrangement as hereinafter described with reference to the accompanying drawings, in which like numerals are used to designate like parts in the several figures, and in which,

Figure 1 is an end elevation of my improved mechanism. Fig. 2 is a vertical section taken therethrough, and showing the rollers and brake mechanism in elevation, and, Fig. 3 is a rear elevation of the mechanism, the rollers being broken away.

Referring to the drawings, the feed rollers A, A are represented as feeding between them a sheet of solder B, and are mounted by means of short shafts C, C through a standard D. The upper roller A is provided upon its shaft C with a ratchet wheel E, operated to intermittently rotate said roller by means of a reciprocating operating arm F by means of its pivotal connecting arm G mounted concentric with said ratchet wheel E, and provided with a pawl H, adapted to engage, by gravity, within the notches of the ratchet wheel E to rotate the same upon the movement of the arm F. The operating arm F may be reciprocated from the driven shaft of the machine by means of a strap eccentric, or any other well known means, such means being well known in the canning art.

According to my invention I provide a bracket frame 1, mounted adjacent the standard D, and provided with an offset arm 2, connected at 3 to a supplemental bracket 4. The bracket 1 is provided with a swingingly mounted locking dog 5, normally pressed into engagement with the ratchet wheel E by means of a retractile spring 6, arranged between the standard D and a projecting stem 7 of said dog 5, to securely hold the strip B im-

movable under pressure of the die or punch previously referred to. The supplemental bracket 4 attached to the arm 2 of said frame 1 inside the standard D is provided with a strap 8 rigidly secured at its end 9 to the end of said bracket by means of a clip 10. The strap 8 is connected at its other end to an adjustable arm 11 by means of a strong coil spring 12, and said arm 11 is provided with a threaded opening for the reception of an adjusting screw 13, arranged through the end 14 of said bracket 4.

The operation of my device is as follows: Supposing the operating arm F to have been moved to the position shown in full lines from that shown in dotted lines in Fig. 1, the ratchet E being operated thereby, and the upper feed roller A being rotated in the direction of the arrow shown in Fig. 2. When the limit of movement of the arm F has been reached, the sheet B of solder will have been fed beneath the dies or punches, and the locking dog 5 will engage one of the ratchets of wheel E to prevent movement of said solder sheet. The upper roller A being moved in the direction of the arrow will force the strap 8 upward under tension of the coil spring 12 at the end thereof, but as soon as the rotation ceases, and the arm F is again moved to the position shown in dotted lines in Fig. 1, the spring 12 will contract and draw said strap 8 tightly upon the roller A. Should there be any tendency of said roller to move in the reverse direction, such movement will be prevented by reason of said spring 12, and the rigid connections at the other end 9 of said strap 8.

Having thus fully described my invention I claim:

1. In a mechanism of the character described, the combination with the feed rollers for feeding a sheet of solder and the ratchet wheel and operating arm for actuating said rollers, of a locking dog arranged to engage said ratchet wheel to prevent reverse movement of said solder sheet, and a strap brake arranged upon one of said rollers and having a resilient connection at one end thereof to allow this rotation and a rigid connection at its other end to prevent the reverse movement thereof, substantially as described.

2. In a mechanism of the character described, the combination with the feed rollers for feeding a sheet of solder and the ratchet wheel and operating arm for actuating said rollers, of a locking dog arranged to engage said ratchet wheel to prevent reverse movement of said solder, and a strap brake arranged upon one of said rollers and having an adjustable resilient connection at one end thereof to allow this rotation, and a rigid connection at its other end to prevent the reverse movement thereof, substantially as described.

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

NATHANIEL NELSON.

Witnesses:

JOHN W. BRITTON,
MARY O'CONNELL.