

C. C. SHEPPARD AND H. C. SCHMIDT.
 MECHANISM AND METHOD FOR DISASSEMBLING CARTRIDGES.
 APPLICATION FILED AUG. 16, 1921.

1,403,525.

Patented Jan. 17, 1922.

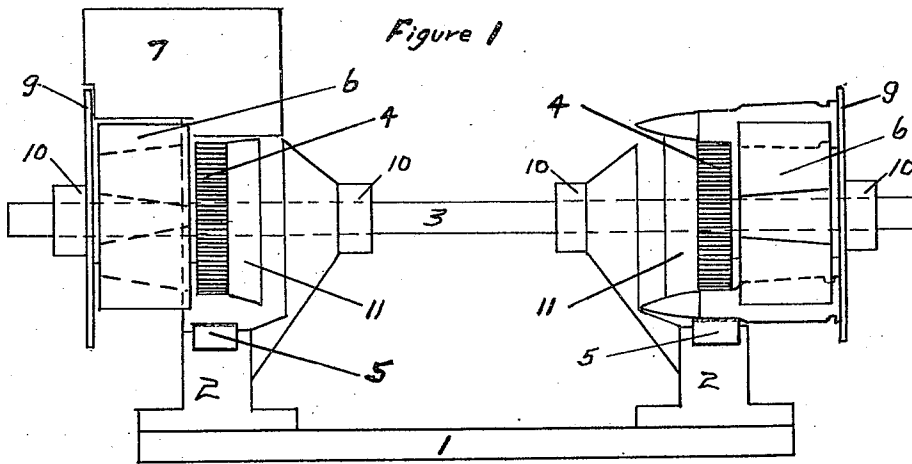
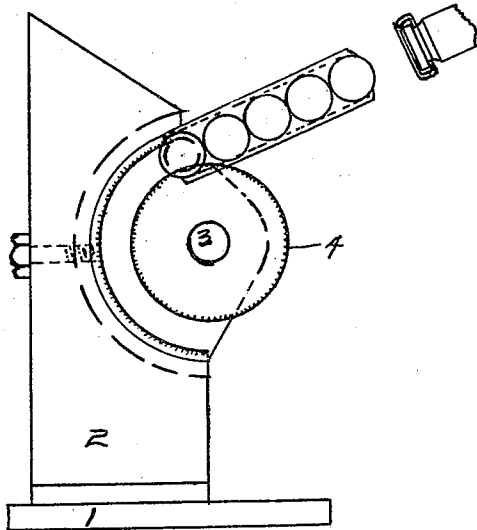


Figure 3

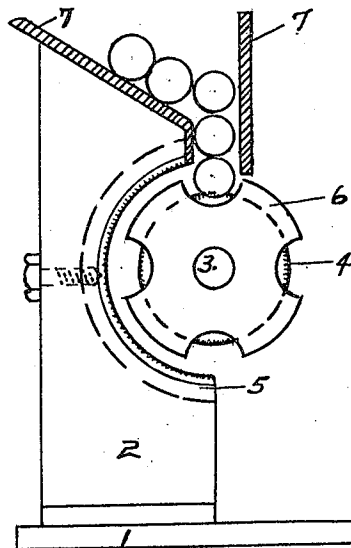


Figure 2

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UNITED STATES PATENT OFFICE.

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MECHANISM AND METHOD FOR DISASSEMBLING CARTRIDGES.

1,403,525.

Specification of Letters Patent. Patented Jan. 17, 1922.

Application filed August 16, 1921. Serial No. 492,802.

To all whom it may concern:

Be it known that we, CREEDY C. SHEPPARD and HERMAN C. SCHMIDT, citizens of the United States, and residents of Washington, in the District of Columbia, have invented certain new and useful Improvements in Mechanism and Methods for Disassembling Cartridges, of which the following is a specification.

Our invention relates to a mechanism and method for disassembling cartridges.

The object of our invention is to provide a mechanism and method for rapidly and safely disassembling cartridges by loosening the hold of the cartridge case on the projectile so as to permit the projectile to fall out of the case or to be easily withdrawn therefrom manually or in any other suitable manner.

It is also the purpose of our invention to so improve machines of this type as to render them more positive and efficient in action and capable of acting on a plurality of cartridges held together in group by the well known clip.

One form of carrying our invention into practice is illustrated in the accompanying drawing wherein like characters of reference denote corresponding parts in the several views and in which

Figure 1 is a front elevation of a duplicate unit machine constructed in accordance with our invention;

Figure 2, an end elevation with certain parts removed and others in section; and

Figure 3, an end elevation of the machine slightly modified to permit handling of cartridges secured in group by the well known clip.

Referring to these drawings, 1 represents a base plate on which are mounted brackets 2 supporting a rotatable shaft 3. On this shaft there is fixed a roller 4 serrated on its periphery. In the bearing brackets 2 there are mounted dies 5 having a segmental circular shape and serrated on their inner surface. These dies are secured to the brackets 2 by set screws or other suitable means in such manner as to permit adjustment thereof so that the distance between inner face of dies and axis of the shaft may be varied. In this case the adjustment is made by loosening supporting set screw and placing shims between die and bracket. The rollers 4 are driven by shaft 3. The cartridges are

fed into the upper space between die and roller which engage the cartridge neck over the projectile seating. The distance between die and roller is adjusted so that it is less than the diameter of the cartridge at this point, consequently, as the cartridge rolls through between die and roller the metal of the cartridge case is compressed and consequently thinned out. This results in the periphery of the case being expanded so that after passing through the machine the projectile is free to drop out of the cartridge case.

There is mounted on shaft 3 a fluted feed wheel 6 having notches into which individual cartridges drop from a feed box 7. The bearing at the center of this wheel is slightly larger than the diameter of the shaft so that as the cartridges roll through the machine, the speed of the feed wheel is determined by the speed of the cartridge rolling along die 5. There is also provided a flanged wheel 9 against which the base of the cartridges drop and which positions them longitudinally with respect to roller and die. There is further provided a bullet guide roller 11 for positioning the projectile end of cartridge. Roller 4, feed wheel 6, guide flange 9 and guide flange 11 are adjustable with respect to each other by means of washers placed between the various elements. The shaft is held in position and this adjustment of various operating parts maintained by means of collars 10 are attached to the shaft by set screws (not shown).

As a great many cartridges are packed in clips it is desirable to handle these cartridges while retained in the clips. We have provided means for doing this as shown in Figure 3. For this purpose, feed wheel 6, feed box 7 and flange guide 9 are removed. A clip containing a multiple of cartridges is then inserted directly into space between die and roller, the clip serving as a guide for spacing and alignment of cartridges. A cross section of the clip holding the bases of cartridges is indicated in the small view at the upper right hand corner of Figure 3. The clips may be inserted manually or may be fed down a suitable chute to the machine.

We claim:—

1. In a machine for disassembling cartridges, the combination of a shaft, a serrated roller mounted thereon, a die substantially concentric with and spaced from the

outer periphery of the roller and means for feeding cartridges between said die and roller.

2. In a machine for disassembling cartridges, the combination of a shaft, a roller mounted thereon, a serrated die substantially concentric with and spaced from the outer periphery of the roller, and means for feeding cartridges between the die and roller.

3. In a cartridge disassembling machine, the combination of a serrated roller mounted on a shaft, a serrated die concentric with and spaced from the periphery of the roller, whereby the neck of a cartridge passing between the roller and die will be peened and expanded to loosen its projectile, and means for varying the distance between the roller and die.

4. In a cartridge disassembling machine, the combination of a roller mounted on a shaft, a die disposed in cooperative relation

to the periphery of the roller whereby a cartridge passing between the roller and die will be peened and expanded to loosen its projectile, and a wheel loosely mounted on the shaft for controlling the feeding of cartridges between the die and roller, said wheel being rotated by the cartridges during their passage between the die and roller.

5. The method of disassembling cartridges which consists in rolling axially each cartridge of a clip carried group while all of the cartridges are carried by the clip to maintain end alinement of the several cartridges, and subjecting the neck of each cartridge, while rolling, to pressure sufficient to expand said neck and thereby loosen the projectile from the cartridge case.

In testimony whereof we hereunto affix our signatures.

CREEDY C. SHEPPARD.
HERMAN C. SCHMIDT.