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Eagles

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[54] **TOY PISTOLS**

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[52] **U.S. Cl.** **42/58,** 42/54

[51] **Int. Cl.** **F41c 3/06**

[58] **Field of Search** 42/58, 54

[56] **References Cited**

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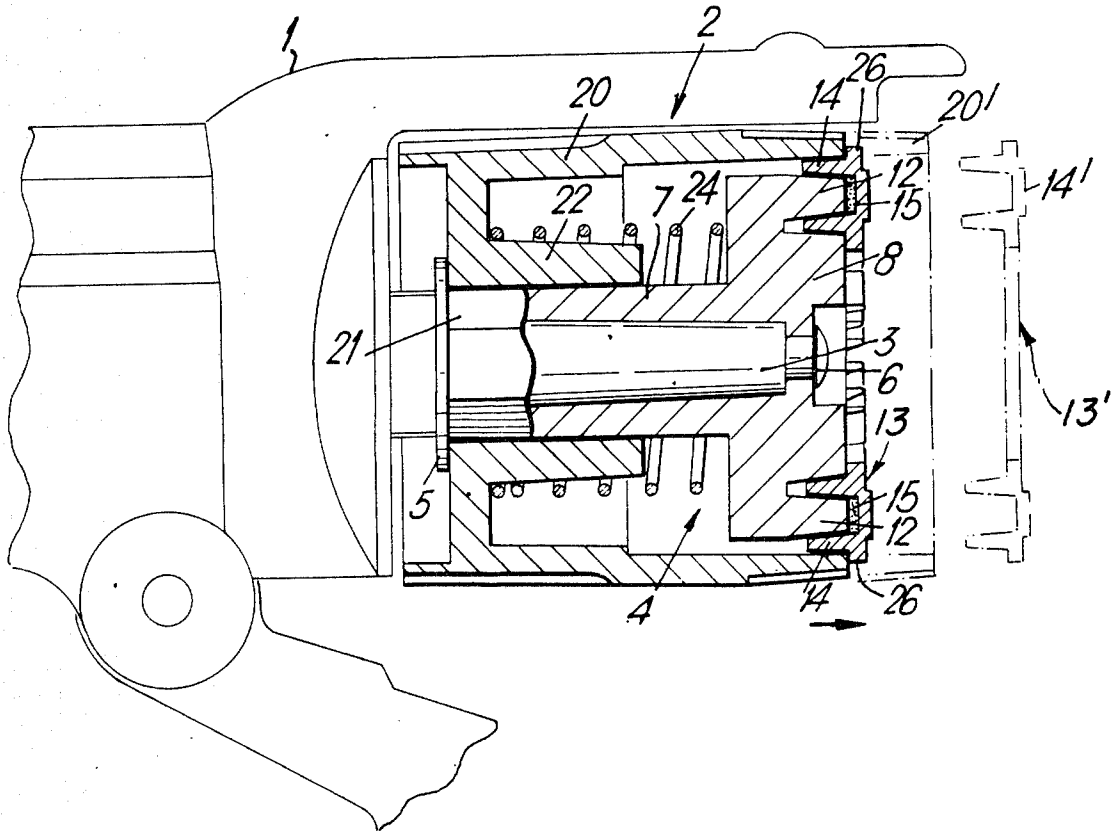
[57] **ABSTRACT**

A toy pistol includes spring-loaded cylinder comprising an inner part which is fixed in an axial direction and is provided with a ring of firing pins for the reception of a ring of caps. An outer shell surrounds the inner part and is capable of sliding in a longitudinal direction between a forward position in which its rear edge is overlapped by a part of a ring of caps in position on the firing pins and a rearward position, movement into which frees the ring from the firing pins. The outer shell may be spring-loadd into its forward position. Also the inner part may be formed with a ring of teeth for cooperation with an indexing finger on the hammer mechanism.

2 Claims, 2 Drawing Figures



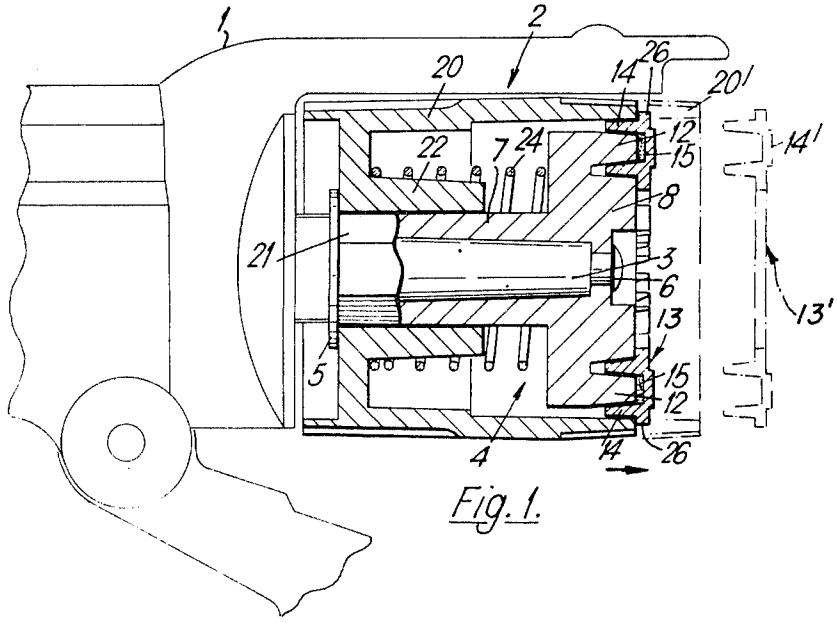


Fig. 1.

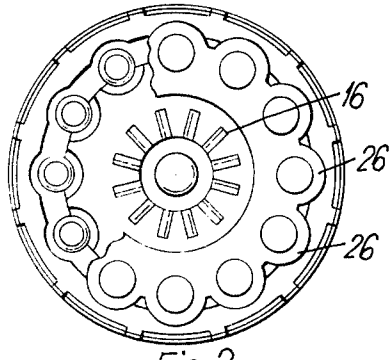


Fig. 2.

TOY PISTOLS

Until recently toy pistols have commonly used paper "caps" either in strip or single form. Another form of caps which is gaining in popularity comprises a number of small plastic cups which are moulded integrally with a supporting member in the form of a ring. Each of the cups contains a small quantity of explosive at the closed end and fits over a firing pin in the cylinder of the pistol. For example there may be a total of twelve cups in the ring which fit over a corresponding ring of twelve firing pins in the cylinder of the pistol. Such caps as they are known are more expensive than paper caps and a higher degree of performance is expected to justify the additional expense. After all the caps in the ring have been fired there is usually a certain amount of difficulty in removing the spent ring from the cylinder of the pistol. This is partly because the individual cups need to be a fairly close fit on their firing pins and partly because the firing of the explosive tends to increase the adhesion.

According to the present invention the cylinder of a toy pistol intended for use with caps of the type just described includes a cylinder comprising an inner part which is fixed in an axial direction and is provided with a ring of firing pins for the reception of a ring of caps and an outer shell which surrounds the inner part and is capable of sliding in a longitudinal direction. In its forward position the rear edge of the shell is overlapped by a part of a ring of caps in position on the firng pins and when slid rearwardly the movement frees the ring from the firing pins. The rearward movement of the complete ring removes the individual caps from their firing pins and thus allows the ring as a whole to be removed without difficulty.

Preferably the outer shell is spring loaded into its forward position and consequently has to be slid rearwardly against the action of the spring. Consequently as soon as a ring has been removed, the outer shell automatically returns to its forward, operative position ready for the insertion of a fresh ring of caps and further operation of the pistol.

A construction in accordance with the invention will now be described by way of example with reference to the accompanying drawings, in which:

FIG. 1 is a longitudinal cross section through the cylinder of a toy pistol, the surrounding structure of the pistol being shown in outline; and,

FIG. 2 is an end view of the cylinder with a ring of caps in position and shown partly broken away.

The mechanism illustrated in the drawings forms part of a toy pistol described in more detail in the concurrently filed copending Application Ser. No. 199,443 but in principal a cylinder in accordance with the present invention can be fitted to any form of toy pistol. The forward part of the body of the pistol is shown in outline at 1 and the cylinder itself is indicated generally as 2. The cylinder is mounted to rotate on a fixed axle 3 projecting rearwardly from the main body 1. The cylinder comprises an inner portion 4 which is fixed in a longitudinal direction between a washer 5 and a rivet 6. The part 4 is of generally T-shaped cross-section, the main limb 7 of the T fitting around the axle 3 and the cross member 8 being formed with a ring of firing pins 12 for the reception of a ring-type cap 13 seen in section in FIG. 1 and partly broken away in FIG. 2.

The cap 13 comprises a ring of plastic cups 14, two of which are seen in FIG. 1, and each of which contains a small quantity of gun powder 15 which is consequently located between the end of the cup and the end of the respective firing pin 12 so as to be exploded when struck by the hammer of the pistol (not shown). The cross member 8 is also formed with a ring of teeth 16 for cooperation with an indexing finger on the hammer mechanism, by means of which the cylinder is rotated step by step each time the pistol is fired. This type of indexing mechanism is well known in itself.

The part 4 is surrounded by an outer shell 20 which is capable of sliding on the central limb 7 of the part 4, but is prevented from rotating by a series of flats shown as 21 on the outer surface of the limb 7 and the inner surface of a central portion 22 of the shell 20. The shell 20 is loaded by means of a coiled spring 24 into its forward position where further forward movement is prevented by the washer 5. During normal operation of the pistol the two parts 4 and 20 rotate together and to external appearances constitute a normal construction of cylinder. The shell 20 is, however, capable of rearward sliding movement against the action of the spring 24 into the position shown in dotted lines as 20'. The rear end of the shell 20 is overlapped by a series of lips 26 formed on the cap 13 as best seen in FIG. 2. Consequently rearward movement of the shell 20 moves the complete ring 13 with it, thus freeing the individual cups from their firing pins 12, the removed ring being shown in dotted lines in FIG. 1 as 13' and as including a cup 14'. In other words, as soon as a complete ring has been fired, it is merely a question of sliding the shell 20 rearwardly to remove the spent ring after which it can be replaced very simply by means of a new ring and operation of the pistol can continue.

I claim:

1. A toy pistol including a cylinder, said cylinder comprising an inner part, means for fixing inner part in an axial direction, said inner part having a ring of firing pins for the reception of a cap ring, and said cylinder also comprising an outer shell which surrounds said inner part and means mounting said shell for sliding movement in a longitudinal direction between a forward position in which its rear edge is level with the rear edge of said ring of firing pins and a rearward position, whereby movement into said rearward position frees a cap ring from said firing pins.

2. A toy pistol according to claim 1, in which said outer shell has spring means for spring-loading it into its forward position.

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