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E. HEPERLE

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MECHANISM ON AUTOMATIC FIREARMS WITH REVOLVER DRUMS

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Fig. 1

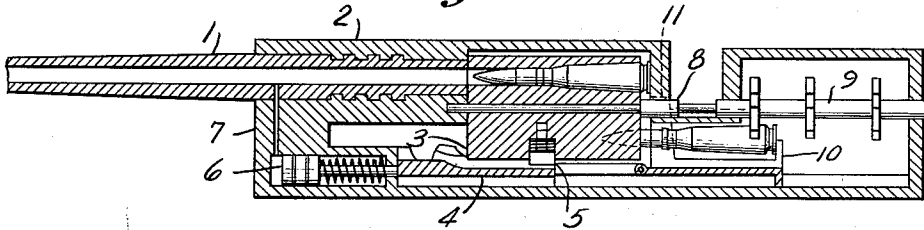


Fig. 2

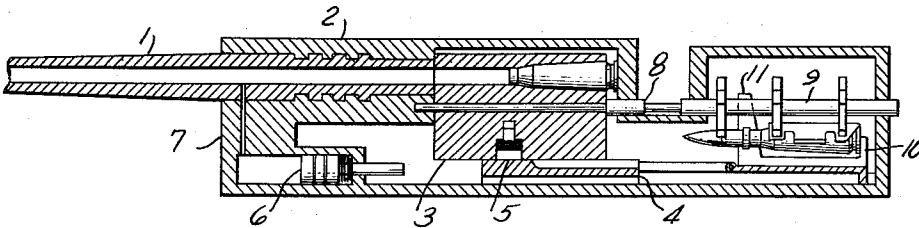


Fig. 3

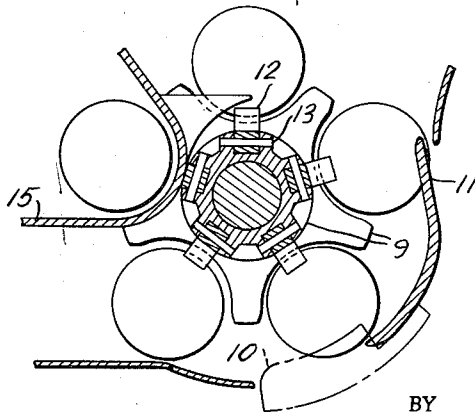
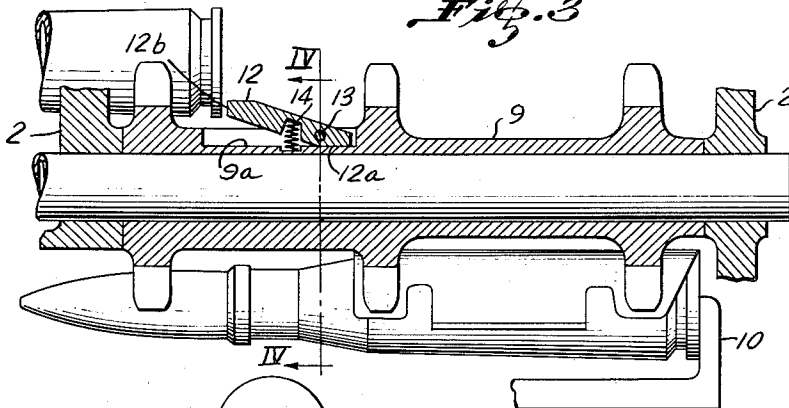


Fig. 4

INVENTOR

ERWIN HEPERLE

Richard Geyer

ATTORNEYS

BY

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MECHANISM ON AUTOMATIC FIREARMS WITH REVOLVER DRUMS

Erwin Hepperle, Zurich, Switzerland, assignor to Machine Tool Works Oerlikon, Administration Company, Zurich-Oerlikon, Switzerland, a company of Switzerland

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2 Claims. (Cl. 89—33)

The present invention relates to a mechanism on the feed device of automatic firearms with revolver drums. In such firearms generally the cartridge belt is moved into the gun by means of a starwheel arranged coaxially with and behind the drum and coupled to the latter. During the movement of drum and starwheel the cartridges are successively moved from the starwheel into the drum by means of an axially movable slide. With each stroke of the axially movable slide a cartridge is moved over half of its travel. Therefore at the end of each movement of the mechanism one cartridge is in an intermediate position between starwheel and drum. If the drum casing with the barrel is movably arranged in the gun casing to reduce the recoil forces it is possible that the cartridge in the intermediate position is moved due to acceleration forces in such a way that it cannot be seized by the lug of the axially movable slide and thus cannot be moved into the drum.

The present invention eliminates this disadvantage. It is characterized in that on the starwheel movable spring-supported elements are arranged which engage with the bottom of the cartridges in the intermediate position and secure them against movement to the rear.

A constructional example of the present invention is shown in the enclosed drawing. In the drawing:

Fig. 1 is a longitudinal section through the gun;

Fig. 2 is a longitudinal section through the gun immediately after firing of a round;

Fig. 3 is a longitudinal section of the starwheel with one cartridge in the rear position and another cartridge in intermediate position;

Fig. 4 is a section along the line IV—IV in Fig. 3.

As shown in Figs. 1 and 2 the barrel 1 is fastened by means of a bayonet to the casing 2 which contains the drum 3. The drum 3 is fitted with a number of cartridge chambers which, on rotation of the drum 3, are successively moved in front of the barrel 1. Rotation of the drum 3 is effected in known manner by means of a slide 4 fitted with curved grooves which engage the rollers 5 disposed on the drum. The slide 4 is actuated by the gas piston 6 arranged in the gas cylinder 7. The cartridge feed starwheel 9 is arranged coaxial to the drum 3 and

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connected with the latter by the coupling 8. The cartridges are moved in known manner in two steps from the starwheel into the cartridge chambers of the drum 3 by means of the lugs 10, 11 of the slide 4.

Between the arms of the starwheel dogs 12 are provided. The dogs 12 are pivotable about the axis 13 and subjected to the action of the spring 14 (cf. Fig. 3). As can be seen from Fig. 4 the drum casing is fitted with an ejector duct 15. During rotation of the drum the dogs 12 are depressed on passing the ejection duct so as not to interfere with the ejection of the cartridges.

The operation of the mechanism is as follows:

The cartridge to be moved into the drum is seized and moved forward by the lug 10 during the forward run of the slide while the drum chamber and sprocket 9 containing the cartridge pass through their lowermost position and rotate to the extent of half a chamber spacing. By its forward movement the cartridge slides over the dog 12 which is depressed against the action of the spring 14. As soon as the cartridge has reached its intermediate position the dog 12 pivots under the action of the spring 14 until its face 12a rests against the face 9a of the star wheel. In this position of the dog the face 12b is pressed immediately behind the bottom of the cartridge, thus preventing the latter from sliding to the rear. In the meantime the slide 4 has made a backward run and turned the drum and sprocket by half a chamber spacing again. During the next forward motion of the slide, resulting in another turn by half a chamber spacing of drum and sprocket, the cartridge is moved by the rod 11 from its intermediate position into the chamber of the drum. The same sequence of operations is repeated for the introduction of each cartridge.

I claim:

1. In an automatic firearm with a revolver drum, in combination a toothed starwheel arranged coaxially with and behind the drum for moving a cartridge belt into the gun, means coupling said starwheel with said drum, a longitudinally movable slide for successively moving cartridges from their belt links while in the starwheel to an intermediate position in one stroke, and in the next stroke from the intermediate position into a cartridge chamber of the drum, movable spring-biased elements mounted on the hub of the star wheel for engagement with the bottoms of the cartridges when in their intermediate position to secure them against movement to the rear.

2. Mechanism in accordance with claim 1 characterized in that the elements are pivotable, spring-biased dogs which are pivotally mounted between the teeth of the starwheel.

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