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COCKING MECHANISM FOR AUTOMATIC FIREARMS

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Fig. 1

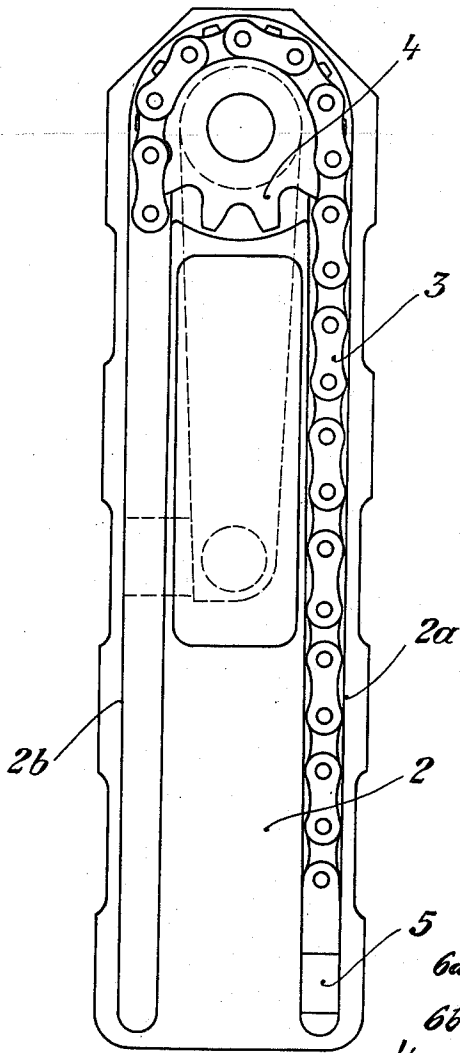


Fig. 2

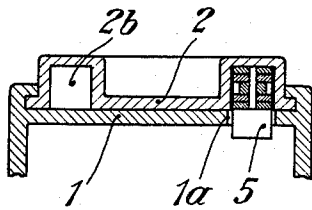
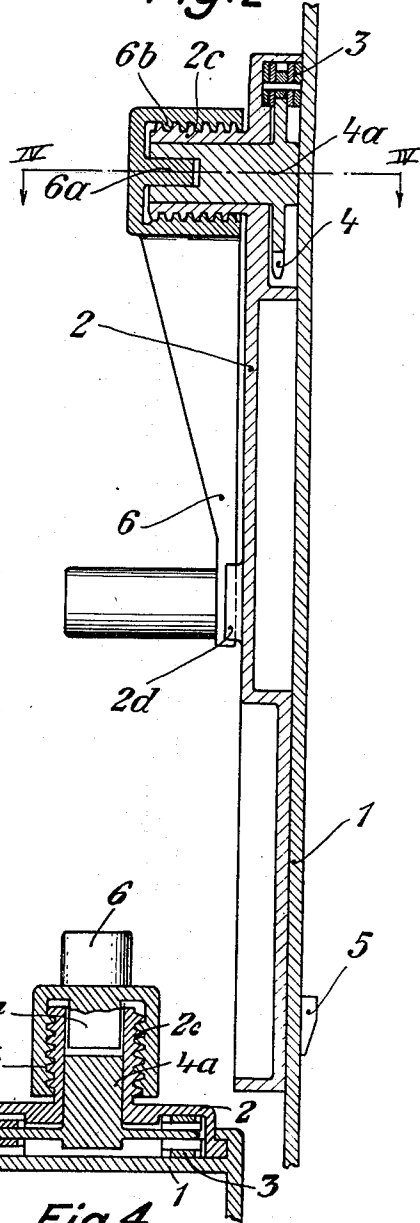


Fig. 3

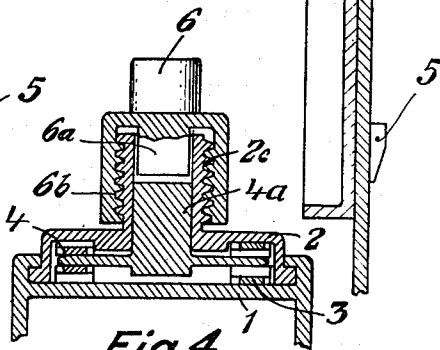


Fig. 4

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COCKING MECHANISM FOR AUTOMATIC FIREARMS

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7 Claims. (Cl. 89—27)

The invention relates to a cocking device for automatic firearms comprising a chain and sprocket wheel. It differs from known forms of construction of apparatus of this kind having an endless chain in that there is used an open ended chain which is guided in grooves in the gun body. Thus the result is obtained that only a single sprocket wheel is required and the cocking device is simpler in construction, while its overall length is less.

In order that the cocking device may be easily accessible, it is advisable for it to be mounted in a removable part of the gun body or housing.

When the velocity ratio of the cocking device must be so great that more than one revolution of the sprocket wheel is necessary for cocking the breech, it is advantageous to impart to the crank driving the sprocket wheel an axial displacement dependent upon its rotary movement. On the gun housing there may be provided a fixed abutment against which the crank bears in the position of rest. By the axial displacement of the crank during the cocking movement the effect is obtained that the cocking crank can make several revolutions without striking against this abutment, which, on the return of the cocking device, by limiting the backward turning movement of the crank, indicates the end position attained.

An example of construction of apparatus according to the invention is shown in the accompanying drawing in which:

Fig. 1 shows a view on the inner side of a removable part of a gun body or housing carrying the cocking device.

Fig. 2 shows a horizontal longitudinal section. Fig. 3 a cross-section through the part of the gun receiving the cocking device.

Fig. 4 is a cross sectional view through the spindle and projection taken on line IV—IV of Fig. 2.

In the side wall 1 of the gun housing there is arranged a removable frame or wall portion 2 in which the open ended chain 3 and the sprocket wheel 4 are mounted. The chain is adapted to move in guide grooves 2a and 2b in the frame or wall portion 2. The chain carries at one end a nose 5 which engages with the breech block through a longitudinal groove 1a in the housing wall 1.

On a pin or trunnion 2c on the housing wall portion or frame 2, there is mounted a cocking crank 6 which is coupled by a projection 6a having a square or other prismatic cross section which engages with a spindle 4a of the sprocket wheel 4 in a recess of corresponding cross section.

The pin or trunnion 2c has an external screw thread and the hub 6b of the crank 6 a corresponding female thread.

The pitch of the thread is such that it is greater than the height of an abutment 2d against which the cocking crank 6 bears when in the position of rest. On cocking, therefore, during the first revolution the cocking crank 6 turns on the threaded pin or trunnion 2c, the pitch of the thread carrying it beyond the abutment 2d, without striking the latter. Only when the cocking device is completely withdrawn into the position of rest does the crank 6 again strike against the abutment 2d, the end of the necessary return movement thereby being indicated.

I claim:

1. A hand operated cocking device for automatic firearms having a breech mechanism housing, comprising a single sprocket wheel, and an open-ended chain engaged by the sprocket wheel, the ends of said chain being guided in corresponding grooves provided in the breech housing, and means at one end of the chain adapted for engagement with a portion of the breech mechanism for cocking the same.

2. A hand operated cocking device for automatic firearms having a breech mechanism housing, comprising a single sprocket wheel, and an open-ended chain engaged by the sprocket wheel, the ends of said chain being guided in corresponding grooves provided in the breech housing, and means at one end of the chain adapted for engagement with a portion of the breech mechanism for cocking the same, said housing having a detachable frame in which said chain-grooves are provided and said sprocket wheel is mounted to turn.

3. A hand operated cocking device for automatic firearms having a breech mechanism housing, comprising a single sprocket wheel, and an open-ended chain engaged by the sprocket wheel, the ends of said chain being guided in corresponding grooves provided in the breech housing, and means at one end of the chain adapted for engagement with a portion of the breech mechanism for cocking the same, said housing having a detachable frame in which said chain-grooves are provided and said sprocket wheel is mounted to turn, and said cocking means consisting of a stud projecting through a longitudinal slot in the side of said frame.

4. A hand operated cocking device for automatic firearms having a breech mechanism housing, comprising a single sprocket wheel, an open-ended chain engaged by the sprocket wheel, the

ends of said chain being guided in corresponding grooves provided in the breech housing, means at one end of the chain adapted for engagement with a portion of the breech mechanism for cocking the same, said housing having a detachable frame in which said chain-grooves are provided and said sprocket wheel is mounted to turn, and said cocking means consisting of a stud projecting through a longitudinal slot in the side of said frame, a spindle on said sprocket wheel provided with a flat sided recess, and a crank handle having a hub with a central, flat sided projection engaging in said recess to permit axial displacement of the crank handle on said spindle during the turning of the handle and the sprocket wheel.

5. A hand operated cocking device for automatic firearms having a breech mechanism housing, comprising a single sprocket wheel, an open-ended chain engaged by the sprocket wheel, the ends of said chain being guided in corresponding grooves provided in the breech housing, means at one end of the chain adapted for engagement with a portion of the breech mechanism for cocking the same, said housing having a detachable frame in which said chain-grooves are provided and said sprocket wheel is mounted to turn, an externally threaded hollow trunnion, a spindle on said sprocket wheel engaging for turning in the hollow trunnion, a flat-sided axial recess at the end of said spindle, a crank handle having a hub threaded to turn on the trunnion, and an inward and axial projection on said hub engaging in said flat-sided recess, permitting turning and axial displacement of the crank handle relative to said trunnion.

6. A hand operated cocking device for automatic firearms having a breech mechanism housing, comprising a single sprocket wheel, an open-ended chain engaged by sprocket wheel, the ends of said chain being guided in corresponding grooves provided in the breech housing, means at one end of the chain adapted for engagement with a portion of the breech mechanism for cock-

ing the same, said housing having a detachable frame in which said chain-grooves are provided and said sprocket wheel is mounted to turn, an externally threaded hollow trunnion, a spindle on said sprocket wheel engaging for turning in the hollow trunnion, a flat-sided axial recess at the end of said spindle, a crank handle having a hub threaded to turn on the trunnion, an inward and axial projection on said hub engaging in said flat-sided recess, permitting turning and axial displacement of the crank handle relative to said trunnion, and an abutment on the side of said frame for engaging the crank handle in position of rest and permitting the crank handle to pass the abutment after one turn of the crank handle.

7. A hand operated cocking device for automatic firearms having a breech mechanism housing, comprising a single sprocket wheel, an open-ended chain engaged by a sprocket wheel, the ends of said chain being guided in corresponding grooves provided in the breech housing, means at one end of the chain adapted for engagement with a portion of the breech mechanism for cocking the same, said housing having a detachable frame in which said chain-grooves are provided and said sprocket wheel is mounted to turn, an externally threaded hollow trunnion, a spindle on said sprocket wheel engaging for turning in the hollow trunnion, a flat-sided axial recess at the end of said spindle, a crank handle having a hub threaded to turn on the trunnion, an inward and axial projection on said hub engaging in said flat-sided recess, permitting turning and axial displacement of the crank handle relative to said trunnion, and an abutment on the side of said frame for engaging the crank handle in position of rest and permitting the crank handle to pass the abutment after one turn of the crank handle, and said cocking means consisting of a stud projecting through a longitudinal slot in the side of said frame.

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