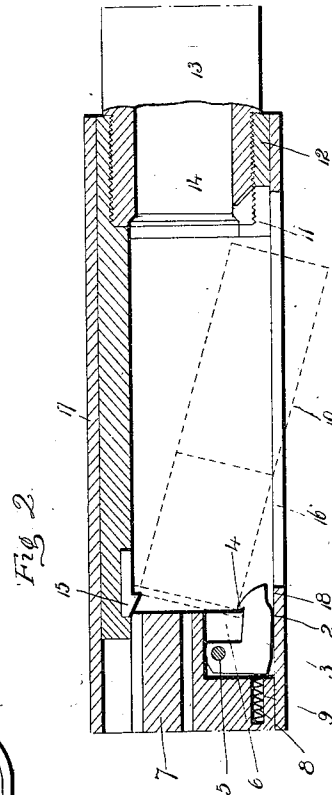
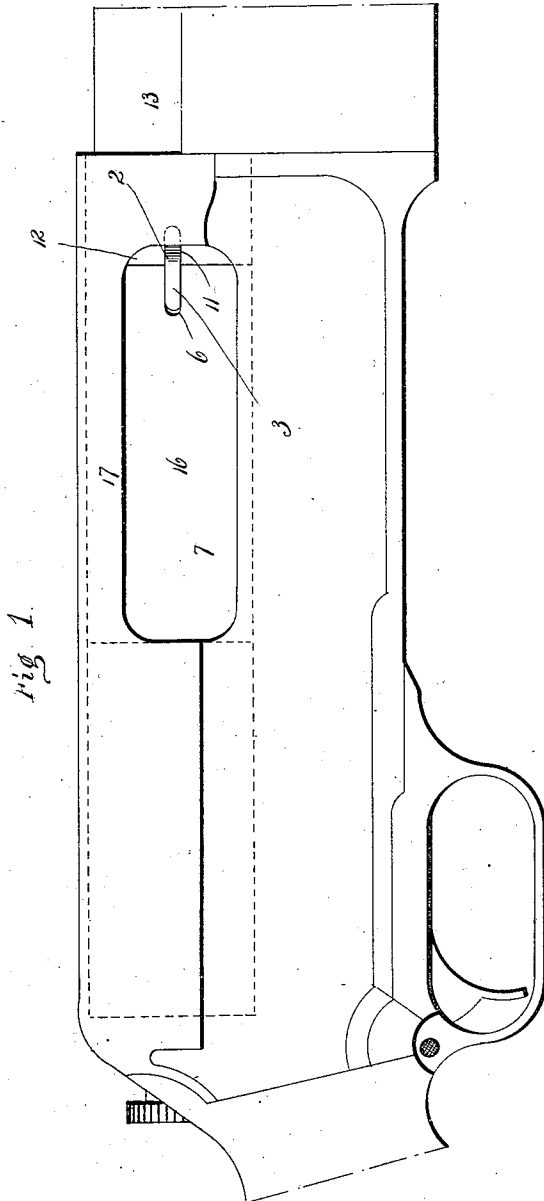


F. F. BURTON.
 RECOILING BARREL GUN.
 APPLICATION FILED FEB. 4, 1909.

941,006.

Patented Nov. 23, 1909.



Witness
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 attys.

UNITED STATES PATENT OFFICE.

FRANK F. BURTON, OF SHORT BEACH, CONNECTICUT, ASSIGNOR TO WINCHESTER REPEATING ARMS CO., OF NEW HAVEN, CONNECTICUT, A CORPORATION.

RECOILING-BARREL GUN.

941,006.

Specification of Letters Patent.

Patented Nov. 23, 1909.

Application filed February 4, 1909. Serial No. 476,119.

To all whom it may concern:

Be it known that I, FRANK F. BURTON, a citizen of the United States, residing at Short Beach, in the county of New Haven and State of Connecticut, have invented a new and useful Improvement in Recoiling-Barrel Guns; and I do hereby declare the following, when taken in connection with the accompanying drawings and the figures of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1 a broken view in side elevation of a gun constructed in accordance with my invention. Fig. 2 a broken view thereof in horizontal section showing the breech-block as detained at the limit of its rearward movement and the recoiling-barrel and barrel-extension just approaching the limit of their forward movement and a cartridge being ejected through the side ejection-opening of the gun-frame.

My invention relates to an improvement in recoiling-barrel guns, the object being to provide simple and reliable means for insuring the proper performance of their extractors notwithstanding variations in the shape and size of the heads of the spent cartridges, and notwithstanding possible defects in the heads and improper presentation of the heads to the extractors.

With these ends in view my invention consists in means for insuring the positive holding of the extractor in its extracting position at the time of the performance of its extracting function.

My invention further consists in a cam for positively holding the extractor in its extracting position at the time of the performance of its extracting function.

My invention further consists in certain details of construction and combinations of parts as will be hereinafter described and pointed out in the claim.

In carrying out my invention as herein shown, I form a cam 2 upon the outer edge of the extractor 3 which is formed with a hook 4 and hung upon a vertically arranged pin 5 on which the extractor swings in a horizontal plane in a recess 6 in the breech-block 7 which may be of any approved construction. A small spiral spring 8 located in a recess 9 in the breech-block engages with the heel of the extractor and exerts a con-

stant effort to swing the same inward into position for engagement with the cartridge 10 which is indicated by broken lines. As the breech-block moves into its closed position, the hook 4 of the extractor 3 enters a clearance-notch 11 formed partly in the barrel-extension 12 and partly in the recoiling-barrel 13 containing the cartridge-chamber 14 in which the cartridge is located at the time of its explosion. As the hook 4 moves into the clearance-notch 11 its beveled forward edge rides over the head of the cartridge and snaps into engagement with the rim thereof. When the cartridge is exploded the barrel 13, barrel-extension 12 and breech-block 7 recoil together with the extractor engaged, as described, with the rim of the cartridge. When they reach the limit of their rearward excursion, the block is caught and temporarily detained in the usual manner, while the barrel and barrel-extension are returned to their normal positions by the barrel-returning spring which is of ordinary construction and not shown. During this forward movement of the barrel and barrel-extension, the barrel, as it were, is stripped from the spent shell which is gripped and held by the extractor. Now just before the barrel and barrel-extension reach the limit of their forward movement, the head of the cartridge is struck a sharp blow from the rear by the cartridge-ejector 15 which is mounted in the rear end of the barrel-extension 12 at a point directly opposite the extractor 3 as shown in Fig. 2. The cartridge being at this time engaged with the extractor, will be partly revolved upon the hook 4 as upon a center and violently ejected through a side ejection-opening 16 formed in the right hand wall of the gun-frame or receiver 17. Now as the barrel, barrel-extension and breech-block recoil together, the extractor will not be disturbed in its relation to the cartridge during this movement. But just before they reach the limit of their rearward excursion, the cam 2 of the extractor engages with the inner face of the right hand wall of the gun-frame or receiver at about the point 18, whereby the extractor is positively held in position for the performance of its extracting function; in other words after the cam 2 has been engaged with the inner face of the right hand side wall of the gun-frame, no strain imposed upon the extractor can cause it to

swing outward away from its proper extracting position. On the other hand in case the extractor is not in proper position at the time of its engagement with the said wall or not properly hooked onto or engaged with the spent shell, then the extractor will by the said cam be forced inward into its proper position in which it will be positively held by the said cam.

10 My improvement takes care of all inequalities in the shape and size of the heads of the cartridges as well as all failures of the shell to be fully and properly engaged by the hook of the extractor when the same first engages with the spent shell. Obviously any strain imposed upon the spent cartridge while the gun-barrel is being stripped from it as described, will not cause the extractor to let go its hold upon the cartridge as the cam-surface of the extractor holds the same up to its work and will not allow it to swing outward and let go its hold.

I claim:—

In a recoiling-barrel shot-gun, the combination with a frame or receiver having a side ejection-opening, of a recoiling-barrel, a breech-block formed at the forward end of its side adjacent to the said opening with a recess, a single pivotal extractor horizontally arranged in the said recess and yielding to engage a rim-cartridge and formed upon its outer edge with an irregular surface acting as a cam for positively swinging the extractor inward upon the rim of the shell to be extracted by the engagement of such surface with the inner face of that portion of the side wall of the receiver just at the rear end of the side-ejection opening.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

FRANK F. BURTON.

Witnesses:

THOMAS C. JOHNSON,
FRANK A. PAUL.