

J. B. BLACKSHEAR.
TOY MACHINE GUN.
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1,287,197.

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Fig. 1.

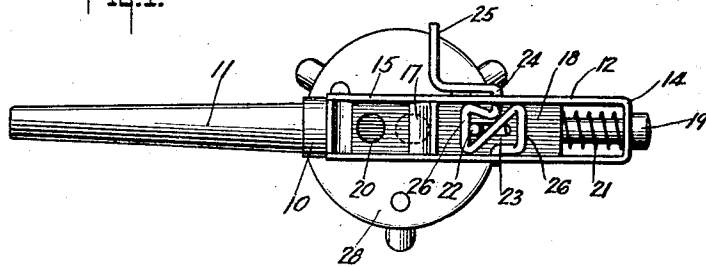


Fig. 2.

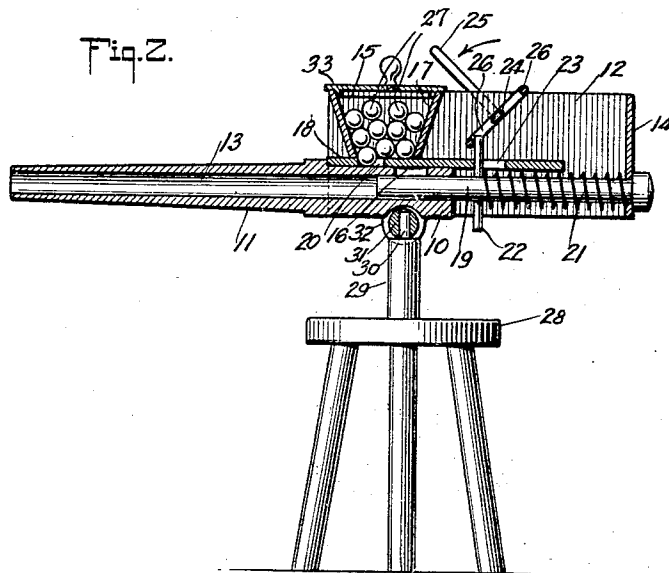
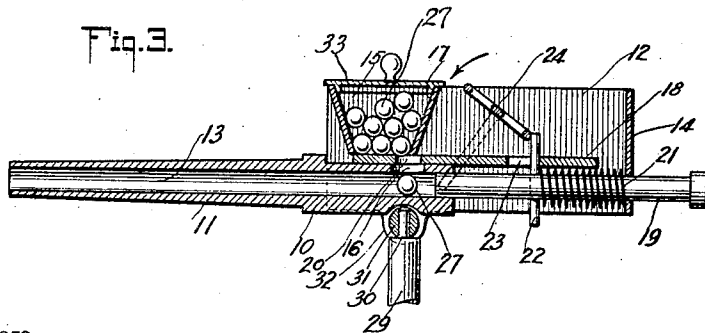


Fig. 3.



WITNESSES

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TOY MACHINE-GUN.

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To all whom it may concern:

Be it known that I, JAMES B. BLACKSHEAR, a citizen of the United States, and a resident of the city and county of Honolulu, Territory of Hawaii, have invented a new and Improved Toy Machine-Gun, of which the following is a full, clear, and exact description.

My invention relates to a toy machine gun in which projectiles are fed from a magazine and discharged by a firing plunger which is actuated to discharge the projectiles in quick succession.

An object of the invention is to provide a machine gun having an improved feed slide coördinated with a spring-pressed firing plunger, the two being controlled by a revolving trigger or actuating device in a manner to cause a feed movement of the slide and a rearward movement of the plunger to compress its spring and then release the plunger, which functions initially to discharge the projectile under the full reactive force of the spring, the plunger then in its final forward movement acting to carry the feed slide to the forward position for receiving a projectile whereby the projectiles will be automatically fed and discharged in rapid succession.

Reference is to be had to the accompanying drawings, it being understood that the drawings are merely illustrative of one example of the invention.

Figure 1 is a plan view of a machine gun embodying my invention;

Fig. 2 is a longitudinal vertical section thereof, the tripod on which the gun is mounted being shown in side elevation;

Fig. 3 is a fragmentary view similar to Fig. 2 but showing the feed and plunger in the positions occupied by the same immediately after the feeding of a projectile to the gun barrel and with the firing plunger about to be released for discharging the projectile.

In carrying out my invention a gun proper designated generally by the numeral 10 includes a barrel 11 of considerable length, the bore 13 of the barrel extending through the rear end of the breech. A suitable frame 12 is provided on the gun extending above and rearwardly of the breech. A hopper 15 is provided on the frame 12 at the forward portion above the gun breech and a vertical feed opening 16 is formed in the gun at the breech adjacent to the

rear wall 17 of the hopper and below the latter for permitting the projectiles to be fed in single succession to the bore. A reciprocating feed slide 18 is interposed between the bottom of the hopper and the gun barrel and has an opening 20 to partially accommodate one projectile to carry the same to the feed opening 16.

A firing plunger 19 reciprocates at its forward end in the gun at the breech and is supported at its rear end in the rear end wall 14 of the frame 12. A spring 21 is coiled about the plunger 19, the spring abutting at its rear end against the wall 14 and at its forward end against a vertically disposed pin 22 on said plunger. The pin 22 extends upwardly through a slot 23 in the feed slide 18 and within the frame 12 to be engaged by a revolving trigger or actuating device 24 having bearings in opposite sides of the frame 12 and provided at one end with the crank handle 25 for the rapid revolving of the trigger. Said trigger is in effect a crank shaft having in practice a plurality of cranks 26, two cranks being here shown diametrically opposite and joined by an oblique member crossing the axis of revolution of the trigger. The pin 22 is in effect a sear pin, since it is acted upon by the trigger and governs the compression and release of the firing plunger or pin 19.

The preferably round projectiles 27 of suitable size and material are disposed and tend to dispose themselves in the hopper in three vertical rows or layers and the opening 20 in the feed slide is central to take a projectile from the central row or layer of projectiles. In operation, therefore, the turning of the crank handle forwardly as indicated by the arrow, brings the cranks 26 in succession against the forward side of the pin 22, so that the latter and the firing pin 19 are carried rearwardly sufficient to permit one projectile to drop through the feed opening 16 in front of the plunger as in Fig. 3, and then immediately cut off the opening 20 by carrying the same past or partially past the rear hopper wall 17. The provision of the slot 23 permits a movement of the plunger 19 relatively to the slide both in the rearward movement and firing movement of the plunger. Thus, the primary action of the trigger is to move the plunger rearwardly to a given extent and then to suddenly shift the feed slide rearwardly to bring a projectile to the open-

ing 16 which occurs an instant before the trigger wipes past the pin 22 and releases the plunger. The firing movement of the plunger is at first independent of the feed slide owing to the slot 23 so that the full force of the spring results in the proper impact of the firing plunger against the projectile, after which the continued forward movement of the plunger causes engagement of the pin 22 with the slide 18 at the front end of the slot 23, thereby suddenly restoring the feed slide to the forward position for another operation. The illustrated arrangement of the cranks 26 results in two complete cycles of operation of the plunger and feed means with each revolution of the trigger. The arrangement makes for a rapidity of fire and accuracy of feed and discharge with a very simple construction of parts.

The gun mount permits of varying the vertical angle of the barrel as well as the lateral swinging thereof for which purpose a tripod 28 is employed having an upstanding post 29 above the table of the tripod which post has a pin 30 at its upper end, said pin being loosely received in a transverse bar 31 adapted to turn in hanger brackets 32 or the like on the gun at the breech.

The opening 20, it will be observed, is round whereas the feed opening 16 is preferably oblong in order to prevent possibility of the projectile being carried with the slide 18 past the said feed opening, 16, so rapidly as to prevent the feeding of the projectile to the barrel. The numeral 33 indicates a cover for the hopper 15. Said cover may be of any suitable form and arrangement as will be readily understood.

I would state in conclusion that while the illustrated example constitutes a practical embodiment of my invention, I do not limit myself strictly to the mechanical de-

tails herein illustrated, since manifestly the same can be considerably varied without departure from the spirit of the invention as defined in the appended claims.

Having thus described my invention, I claim as new, and desire to secure by Letters Patent:

1. A toy gun including a barrel, a hopper above the barrel, the latter having a feed opening for a projectile at the bottom of the hopper, a reciprocating slide extending across the hopper bottom and adapted to carry a projectile to said feed opening, upon a rearward movement of the slide, a firing plunger separate from the slide and adapted to reciprocate in the barrel at the breech, a revoluble trigger mounted above the feed slide, and adapted to impart a rearward movement to the slide, and means to retract the plunger by a rearward movement of the slide, said plunger on the forward movement being initially movable independently of the slide to discharge the projectile, and adapted after the initial forward movement to engage the slide and restore the latter to its forward position.

2. A toy gun including a barrel, a spring-pressed firing plunger adapted to reciprocate in the barrel at the breech, said barrel having a feed opening leading to the bore of the gun, a hopper above said feed opening, a reciprocating feed slide between the hopper and the barrel adapted to carry a projectile to the feed opening, a pin on the firing plunger, the feed slide having a slot through which said pin extends and in which it may have a limited movement back or forth independently of the feed slide and engageable with the feed slide at the ends of the slot in the rearward and firing movements of the plunger, and a revoluble trigger having a plurality of members thereon to successively engage said pin.

JAMES B. BLACKSHEAR.