

Nov. 2, 1937.

J. T. WADE

2,097,749

TOY MACHINE GUN

Filed Nov. 21, 1935

2 Sheets-Sheet 1

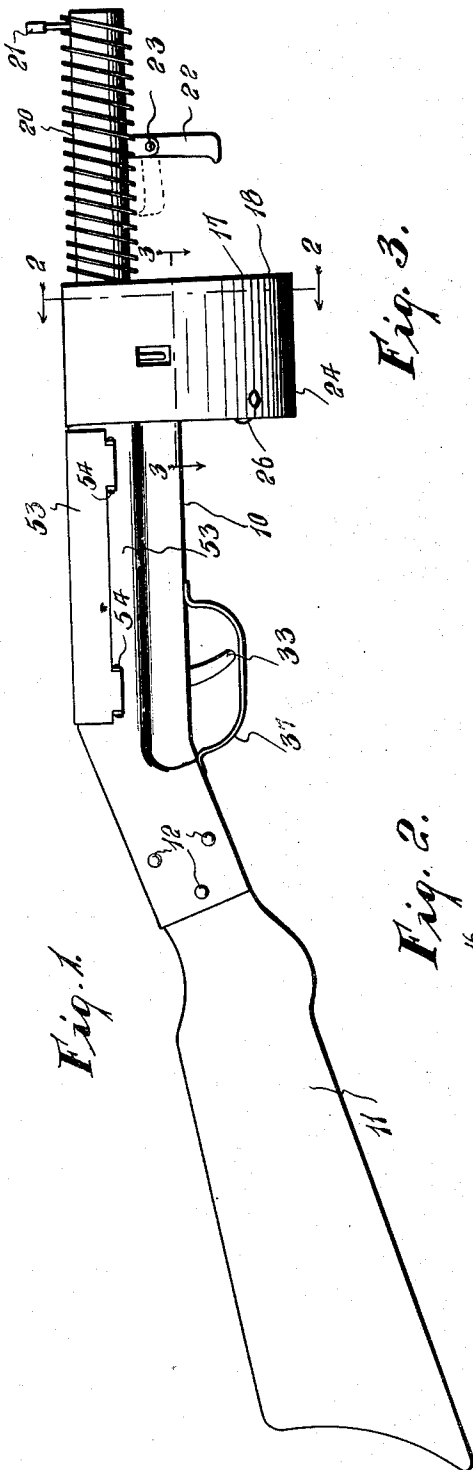


Fig. 3.

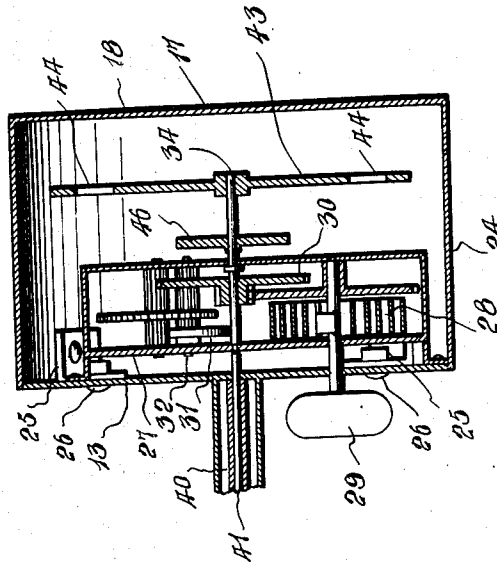
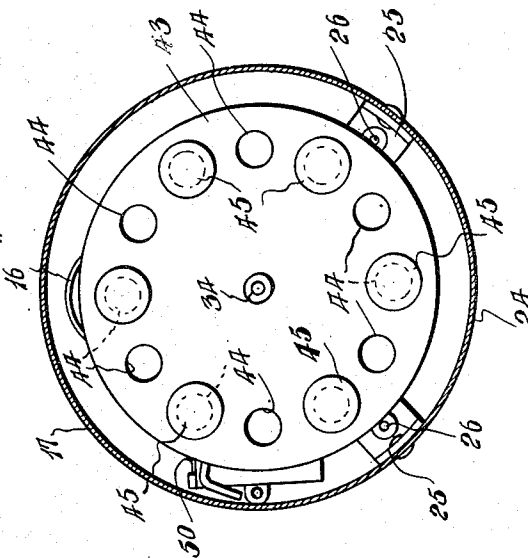


Fig. 2.



Inventor

James T. Wade

By *L. F. Randolph, Jr.*

Attorney

Nov. 2, 1937.

J. T. WADE

2,097,749

TOY MACHINE GUN

Filed Nov. 21, 1935

2 Sheets-Sheet 2

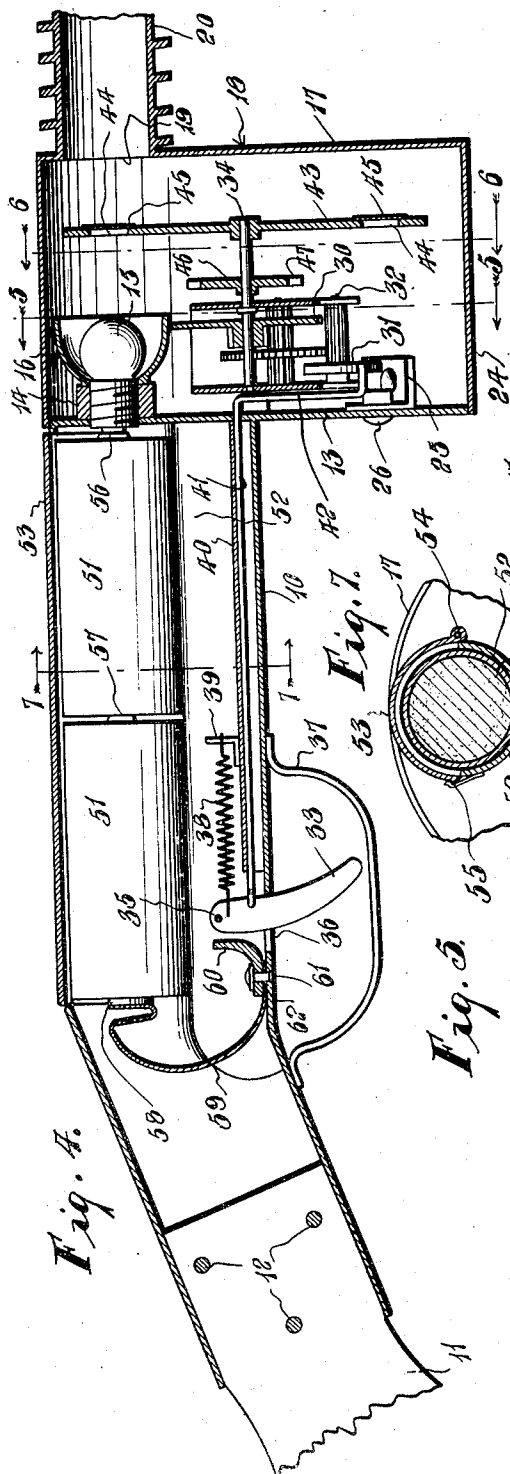


Fig. 6.

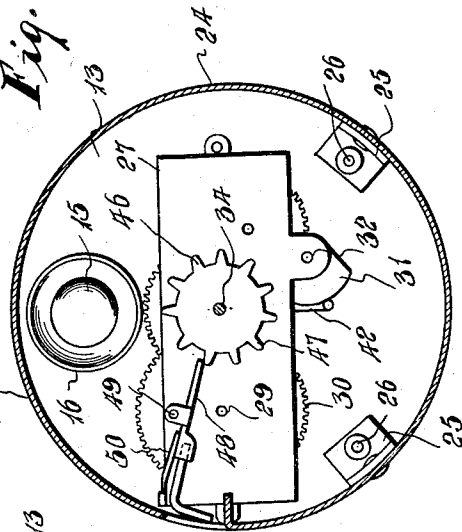


Fig. 7.

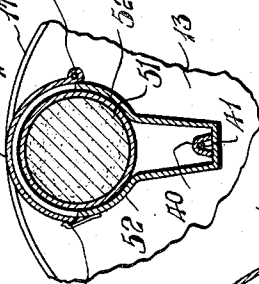
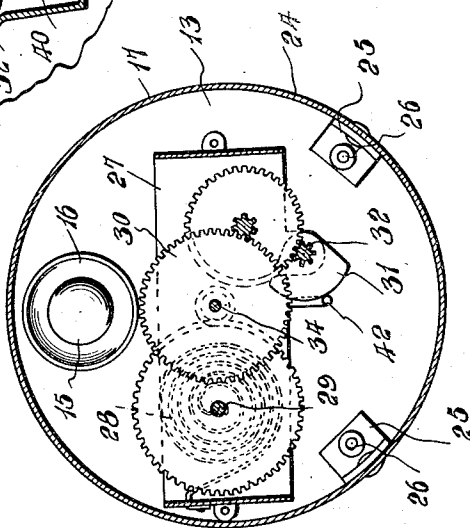


Fig. 5.



Inventor

James T. Wade,

L. F. Ramsey, Jr.

Attorney

UNITED STATES PATENT OFFICE

2,097,749

TOY MACHINE GUN

James T. Wade, Ogden, Utah, assignor of one-third to Samuel E. Ward, Green River, Wyo.

Application November 21, 1935, Serial No. 50,957

9 Claims. (Cl. 46-1)

This invention relates to a toy machine gun.

It is primarily aimed to provide a novel construction having means operable by a trigger or lever to emit light through a diaphanous member, accompanied by sound to simulate the firing of a machine gun.

Another object is to provide a novel construction wherein said diaphanous member is rotatable and consists of a disc having a plurality of openings to align with the barrel of the gun, and which openings are preferably covered by colored sheets of glass, celluloid, or the like, and which member is preferably operated by a spring motor under trigger control.

The more specific objects and advantages will become apparent from a consideration of the description following taken in connection with accompanying drawings illustrating an operative embodiment.

In said drawings:—

Figure 1 is a view of the invention in side elevation;

Figure 2 is a cross sectional view taken on the line 2—2 of Figure 1;

Figure 3 is a cross sectional view taken on the line 3—3 of Figure 1;

Figure 4 is an enlarged, substantially central longitudinal sectional view through the gun;

Figure 5 is a cross sectional view taken on the line 5—5 of Figure 4;

Figure 6 is a cross sectional view taken on the line 6—6 of Figure 4; and

Figure 7 is a cross sectional view taken on the line 7—7 of Figure 4.

Referring specifically to the drawings, wherein like reference characters designate like or similar parts, 10 designates a breech section, into the rear end of which a stock 11 is partly telescoped and fastened as by means of rivets 12. Across the forward end of such breech section 10 is a disc or plate 13. Removably screwed in a socket 14 on such plate is an electric bulb or lamp 15, one terminal of which is grounded to the plate 13, which plate and breech section 10 are metallic. About the lamp 15 is a reflector 16 connected to the socket or holder 14.

Removably connected to the wall 13 is a casing 17, having a wall 18 parallel to the wall 13 and an opening 19 therein longitudinally aligned with the lamp 15 and forwardly of which opening a barrel 20 extends. This barrel preferably has a sight 21 and a handle 22. The handle is pivotally connected to the barrel as at 23 and the connection is somewhat tight, so that the handle will frictionally remain in the extended

full line position of Figure 1, or the dotted folded or retracted position of the same figure.

Said casing 17 also has a cylindrical wall 24 to which brackets 25 are riveted or otherwise fastened, and which are engaged by removable screws 26 passed through the wall 13. The casing 17 and parts attached thereto are accordingly detachably secured to the plate 13 by screws 26.

Disposed within the casing 17 and rigidly 10 fastened to the wall or disc 13 is a spring motor device 27, the same having a spring at 28 adapted to be wound by the key 29 which extends exteriorly of the casing through the wall 13 and drives a suitable train of gears at 30, mounted 15 with their shafts, by the frame 27, as shown. Such spring motor includes a segmental detent 31 on one of its shafts 32.

Said spring motor 27 is normally inactive but is adapted to unwind under control of a lever or trigger 33, so that the main shaft of the spring motor designated 34 will rotate. Such trigger is pivoted as at 35 to the breech section 10, and it passes downwardly through an enlarged slot 36 in the wall of such section so as to be accessible 25 for engagement by the finger of the operator. A guard 37 is disposed about the free end of the trigger, being fastened to the breech section, as shown. Such trigger 35 is urged to its forward position through the contractile action 30 of a spring 38 connected thereto and to a lug 39 on the breech section. An inverted channel or guide member 40 is connected to the base of the breech section on the interior thereof and therethrough a rod 41 is slidably disposed, being pivotally connected to the trigger 33 and 35 being slidable through the wall 13 and within the casing 17 having an L-shaped arm or terminal 42 normally disposed in the path of rotation of the detent 31, in order to prevent and arrest 40 operation of the spring motor.

On the forward end of the main shaft of the spring motor, a disc 43 is fastened, which has an annular row of openings 44, as shown. Alternate openings have diaphanous elements 45 disposed across the same, which may be of glass, celluloid, or the like, and which are preferably 45 red in color. The other openings remain uncovered. When the shaft 34 rotates, the openings 44 successively align with the barrel 20 and 50 lamp 15, in order to alternately emit light which is red and uncolored, which will simulate firing.

Wheel or disc 46 is fast on the shaft 34 between the disc 43 and the spring motor, and it has teeth 47. Such teeth engage the forward free end of a 55

sounding bar 48 pivoted at 49 to the spring motor frame and maintained in engagement with the adjacent tooth 47 by a leaf spring 50 fastened to the same frame. Thus, as the wheel 46 rotates, and the teeth 49 rapidly strike bar 48, noise is produced to simulate the act of firing.

In order to form an electric circuit through the lamp 15, one or more primary or dry cell batteries may be used as at 51, parts of the side walls of the breech section 10 being arcuately bulged as at 52 to removably hold the same. To one of such parts 52 a semi-circular cover 53 is hinged at 54, and to the other of which part the cover or closure 53 is adapted to be secured by latch means or the equivalent at 55. One terminal of one battery 51 engages the central contact 56 of the lamp 15, it being understood that the other contact of the lamp 15 is grounded to the wall 13 as previously stated. The contacts of the two batteries 51 are in engagement as at 57, and the contact of the other battery 51 engages a contact bar 58 within the breech section 10, and from which a conductor 59 extends. Such conductor 59 leads to a contact 60. The conductor 59 and contact 60 are secured rigidly to the breech section by a rivet as at 61, but insulated therefrom as at 62. As a result, when the trigger 33 is drawn rearwardly to simulate firing, it will contact with the element 60 and thus produce an electric circuit through the lamp 15.

Simultaneously with the production of the electric circuit through the lamp 15, rod 41 will have been drawn rearwardly, thereby releasing detent 31 and permitting the spring motor to rotate its shaft 34, whereupon the diaphanous member 43 will be rotated with the openings thereof successively passing the lamp and emitting light of alternate colors through the barrel 20. In addition, the rotation of the disc 46 causes striking engagement of the teeth 47 with the sounding bar 48 to additionally produce noise in simulation of firing.

I claim as my invention:—

1. A device of the class described, having a barrel, a lamp in line therewith, a motor, a diaphanous member operable by the motor in line with the lamp and barrel, and a common means operable to energize the lamp and permit operation of the motor.
2. A device of the class described, having a lamp, a barrel in line with the lamp, a spring motor having a diaphanous member operable between the lamp and barrel, electric circuit means for the lamp including a contact and a trigger engageable therewith to close the circuit, and an escapement rod for the spring motor operable by said trigger.
3. A device of the class described, having a lamp, a barrel in line with the lamp, a spring motor having a diaphanous member operable between the lamp and barrel, electric circuit means for the lamp including a contact and a trigger engageable with said contact to close the circuit, and an escapement rod for the spring motor operable by said trigger, said trigger operating to simultaneously close said circuit and release the spring motor to actuate said diaphanous member.
4. A device of the class described, having a breech section, a wall at the front thereof, a lamp mounted by said wall, a spring motor mounted by said wall, a diaphanous member operable by the spring motor and movable in front of said lamp, battery means carried by the breech

section, means to produce an electric circuit through the lamp and battery means including a contact, a trigger, means mounting the trigger on the breech section for engagement with said contact, and escapement means for the spring motor controlled by said trigger.

5. A device of the class described, having a breech section, a wall at the front thereof, a lamp mounted by said wall, a spring motor mounted by said wall, a diaphanous member operable by the spring motor and movable in front of said lamp, battery means carried by the breech section, means to produce an electric circuit through the lamp and battery means including a contact and a trigger, means mounting the trigger on the breech section for engagement with said contact, escapement means for the spring motor controlled by said trigger, comprising a rod slidable through said wall attached to the trigger and movable into and out of the path of movement of a part of said spring motor.

6. A device of the class described, having a breech section, a wall at the front thereof, a lamp mounted by said wall, a spring motor mounted by said wall, a diaphanous member operable by the spring motor and movable in front of said lamp, battery means carried by the breech section, means to produce an electric circuit through the lamp and battery means including a contact and a trigger, means mounting the trigger on the breech section for engagement with said contact, escapement means for the spring motor controlled by said trigger, comprising a rod slidable through said wall attached to the trigger and movable into and out of the path of movement of a part of said spring motor, an inverted channel member over said rod adjacent the base of the breech section, and a contractile spring urging the trigger to forward position.

7. A device of the class described comprising a gun shaped member having a stock and a breech, a casing arranged adjacent to said breech, a lamp mounted in said casing and aligned with said breech, a spring motor secured in said casing, a diaphanous member arranged in line with the lamp and breech, means actuated by said motor to operate the diaphanous member, electric circuit means for energizing the lamp including a contact, a trigger engageable with said contact to close the circuit, an escapement rod attached to the trigger and extending into the casing, and a detent engageable with said rod to control the operation of said spring motor, said trigger operating against the action of a spring to simultaneously energize the lamp and release the spring motor to rotate said diaphanous member.

8. A toy machine gun of the class described, comprising in combination a gun shaped member having a stock and a breech, a casing arranged adjacent to said breech, a lamp mounted in said casing, a spring motor secured to said casing, a barrel secured to said casing in alignment with said lamp, a diaphanous member arranged in alignment with said lamp and barrel, said diaphanous member being operated by said spring motor, electric circuit means for energizing the lamp including a contact, a trigger engageable with said contact, an escapement rod secured to the trigger and extending into the casing, a detent secured to said rod to control the operation of the motor, said diaphanous member having spaced openings about its circumference covered with colored translucent material, said trig-

ger operating to simultaneously engage the contact to close the circuit and energize the lamp and to release said detent to operate said spring motor, and light rays from said lamp passing
5 through said translucent covered openings in the diaphanous member as it is revolved and through the barrel to give the visual impression of a gun flash.

9. A toy machine gun comprising a spring

motor, a diaphanous member operated by said spring motor, a lamp in alignment with said diaphanous member and adapted to be energized simultaneously with the operation of said motor, sounding means operated by said motor, said
5 diaphanous member and sounding means adapted to operate simultaneously to simulate the firing of a machine gun.

JAMES T. WADE.