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PRACTICE MEANS FOR SHOOTING OF MOVING OBJECTS  

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My invention relates to a practice means for shooting moving objects and particularly for skeet or trap shooting.

Skeet and trap shooting are popular outdoor sports. For illustration, when clay pigeons are used as moving targets they are thrown in an arc and as a test of skill are shot at by the shooter from a number of desired positions. One of the positions is adjacent to the trap at the beginning of the arc. Other positions are located intermediate and through different points to and including a place adjacent the end of the arc. Because the clay pigeon is a moving and not a stationary object, it is necessary that the shooter allow for the time that it takes for the shot to reach a given spot after the trigger of the gun has been pressed.

Because of inclement weather and other reasons there are periods of the year when skeet shooting cannot be enjoyed. The normal skeet shooter, being enthusiastic about the sport, is ordinarily desirous of keeping in practice.

Among the objects of my invention is to provide means whereby the skeet or trap shooter may practice at his favorite sport at any time in doors, and with his own gun unfettered by attachments and extraneous apparatus; to create a practice device which will provide substantially the same or proportionate lapse of time between the shot and the position of the object to be shot at actual trap or skeet shooting so as to afford the user actual practice; to create means whereby the user may see his errors and correct the same; to provide a light throwing device adapted to simulate the arc of travel of a thrown clay pigeon, and such other objects, advantages and capabilities as will later more fully appear and which are inherently possessed by my invention.

While I have shown in the accompanying drawing preferred embodiments of my invention, yet I wish it understood that the same are susceptible of modification and change without departing from the spirit of my invention.

Referring more particularly to the drawing, Fig. 1 is a sectional view of my gun equipped for practice in accordance with my invention; Fig. 2 is a detailed sectional view of one embodiment of my timing mechanism; Fig. 3 is a detailed view of my lighting mechanism; Fig. 4 is a perspective view of my light throwing device and Fig. 5 is a diagrammatical view of a skeet ground.

The embodiment selected to illustrate my invention comprises a gun 10, having a trigger 11 adapted upon pressure to actuate a hammer 12, and in turn a firing pin 13. In the inner end of the barrel 15 of the gun 10 is removably placed a timing mechanism 16. In the outer end or muzzle 17 of the barrel 15 of the gun 10 is removably placed an electric light bulb 18 held in a socket 19 and in front of a reflector 20. Wires 21, suitably insulated, lead from the socket 19 in the barrel 15 to electric batteries 22 of the storage type. Wires 23, suitably insulated, lead backwardly in the barrel from the batteries 22 to the timing mechanism 16.

The timing mechanism 16 has a casing 24 and at its inner end a contact point 25 adapted to receive the firing pin 13 upon the user pressing the trigger 11. The timing mechanism is so constructed that it will delay the lighting of light bulb 18 until a sufficient period of time, substantially equal to the time required for the passage of a real discharge of actual shot from the gun to a desired spot, has elapsed. Upon the expiration of this period of time, the timing device will act to light the bulb 18 and cast a ray of light 26.

An illustrative embodiment of my timing mechanism 16 provides my contact point 25 as integral with piston like member 27. A fixed member 28 is attached to the inner walls of the casing 24 forming a chamber 29 between the members 26 and 27. A resilient member 30, of the compression spring type, has opposite portions contacting members 27 and 28. Said fixed member 28 has an opening 31. Spaced from fixed member 28 and at the opposite end of chamber 32 is a floating member 33. Upon pressure by the firing pin 13 on contact point 25, piston like member 27 moves against resilient member 30 and causes fluid in chamber 29 to pass through opening 31 into chamber 32 and move floating member 33 against the ends of wires 23 to actuate the batteries 22 to light bulb 18 to flash a ray of light 26. Upon release of the firing pin 13, pressure is released on piston like member 27, and in turn the resilient member 30. The resilient member then creates a suction in chamber 29 which in turn creates a suction in chamber 32 to draw the fluid back into chamber 29 thereby causing floating member 33 to draw away from contact with the ends of wires 23 and causing the light to go out.

To provide a moving target to simulate a thrown clay pigeon I have a light throwing device 34 comprising a support 35 upon which is suitably positioned a motor 36 and an attached speed arrester 37. Said motor moves a rotating member 38 to which is attached an arm 39. The arm 39 at its other end is slidably attached to a rod 40 which is attached to a container 41 housing in the front end an electric bulb 42 in front of a reflector 43.
and a source of electrical supply such as dry storage batteries. In use, it will be noted that no special kind of gun is needed with my practice means. The user has the great advantage of practicing with his own gun to which he has previously become accustomed and with which he is capable of handling. In dividing the said outer and inner chambers, said fixed member having an opening, a compression spring positioned in the inner chamber with opposite ends contacting said piston member and said fixed member, a floating member within the outer chamber, the inner ends of the connecting means with the light ray producing means extending slightly within the outer chamber, said piston member adapted upon pressure from the firing pin of the gun on the contact point to move against the compression spring and cause fluid in the inner chamber to pass through the opening in the fixed member to the outer chamber and move the floating member against the inner ends of the connecting means to cause a flash of light at substantially the elapsed time after the trigger of the gun had been pressed that an actual shot would have reached a desired moving object, said piston member having lost pressure upon the release of the firing pin releases in turn pressure on the compression spring causing the compression spring to create a suction in the inner chamber and in turn a suction in the outer chamber thereby drawing fluid from the outer chamber through the opening of the fixed member into the inner chamber and floating the floating member away from contact with the ends of the light connecting means and causing the light to go out.

In combination with a gun, means for producing a ray of light removably fitted within the muzzle of the gun, a timing device removably fitted within the loading chamber of the gun, means connecting said timing device with said light ray producing means, means connecting said casing to receive the firing pin of the trigger of the gun, a piston member integral with said contact point, a fixed member attached to the inner walls of said casing and dividing the said outer and inner chamber, said fixed member having an opening, a compression spring positioned in the inner chamber with opposite ends contacting said piston member and said fixed member, a floating member within the outer chamber, the inner ends of the connecting means with the light ray producing means extending slightly within the outer chamber, said piston member adapted upon pressure from the firing pin of the gun on the contact point to move against the compression spring and cause fluid in the inner chamber to pass through the opening in the fixed member to the outer chamber and move the floating member against the inner ends of the connecting means to cause a flash of light at substantially the elapsed time after the trigger of the gun had been pressed that an actual shot would have reached a desired moving object, said piston member having lost pressure upon the release of the firing pin releases in turn pressure on the compression spring causing the compression spring to create a suction in the inner chamber and in turn a suction in the outer chamber thereby drawing fluid from the outer chamber through the opening of the fixed member into the inner chamber and floating the floating member away from contact with the ends of the light connecting means and causing the light to go out.

In combination with a gun, means for producing a ray of light removably fitted within the muzzle of the gun, a timing device removably fitted within the loading chamber of the gun, means connecting said timing device with said light ray producing means, means connecting said casing to receive the firing pin of the trigger of the gun, a piston member integral with said contact point, a fixed member attached to the inner walls of said casing and dividing the said outer and inner chamber, said fixed member having an opening, a compression spring positioned in the inner chamber with opposite ends contacting said piston member and said fixed member, a floating member within the outer chamber, the inner ends of the connecting means with the light ray producing means extending slightly within the outer chamber, said piston member adapted upon pressure from the firing pin of the gun on the contact point to move against the compression spring and cause fluid in the inner chamber to pass through the opening in the fixed member to the outer chamber and move the floating member against the inner ends of the connecting means to cause a flash of light at substantially the elapsed time after the trigger of the gun had been pressed that an actual shot would have reached a desired moving object, said piston member having lost pressure upon the release of the firing pin releases in turn pressure on the compression spring causing the compression spring to create a suction in the inner chamber and in turn a suction in the outer chamber thereby drawing fluid from the outer chamber through the opening of the fixed member into the inner chamber and floating the floating member away from contact with the ends of the light connecting means and causing the light to go out.

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