

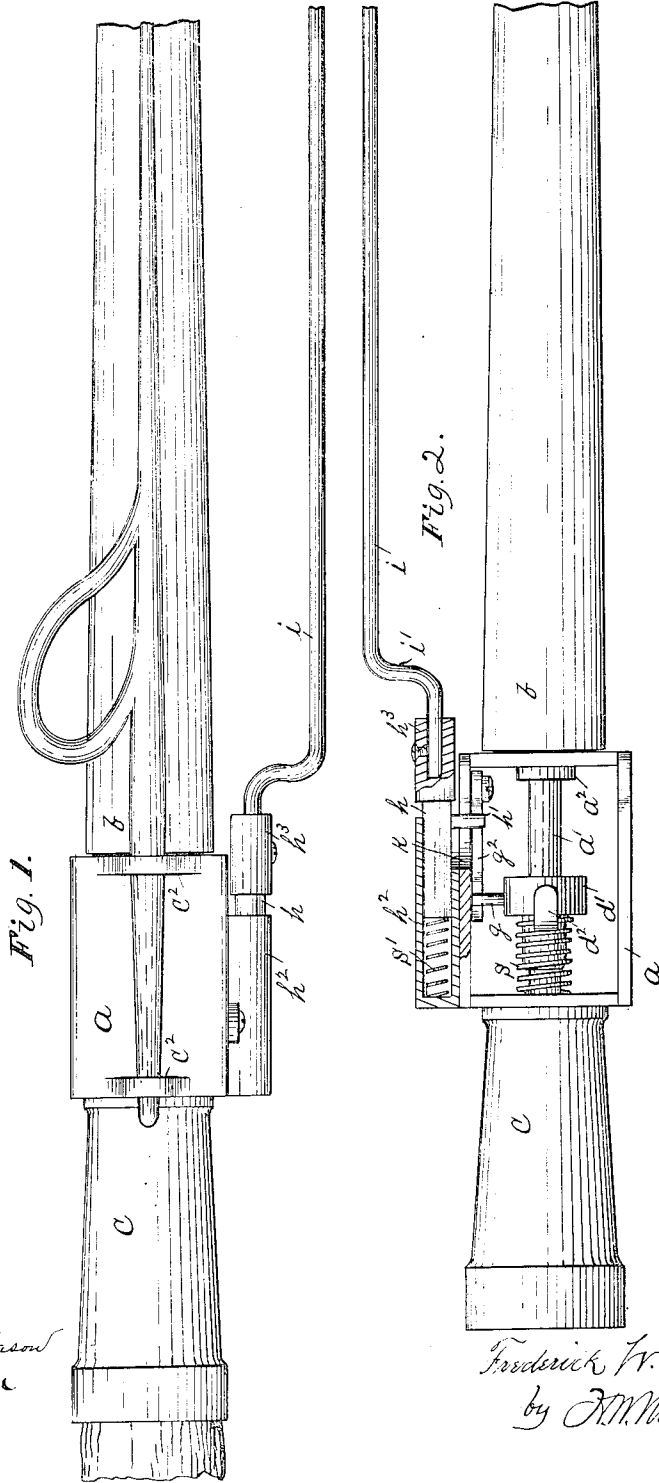
(No Model.)

2 Sheets—Sheet 1.

F. W. LUSCOMB.
BOMB GUN.

No. 523,289.

Patented July 17, 1894.



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UNITED STATES PATENT OFFICE.

FREDERICK W. LUSCOMB, OF NEW BEDFORD, MASSACHUSETTS, ASSIGNOR
TO WILLIAM LEWIS, OF SAME PLACE.

BOMB-GUN.

SPECIFICATION forming part of Letters Patent No. 523,289, dated July 17, 1894.

Application filed October 27, 1893. Serial No. 489,330. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK W. LUSCOMB, a citizen of the United States, residing at New Bedford, in the county of Bristol and State of Massachusetts, have invented certain new and useful Improvements in Bomb-Guns, of which the following is a specification.

My invention relates to that class of bomb guns in which the barrel is detachable, and adapted to have the cartridge inserted in its rear end.

The object of my invention is, first, to provide a firing mechanism, certain in its action, and adapted to be wholly inclosed in a breech piece which is practically water tight, thereby avoiding the liability of becoming clogged with ice; and second, to so arrange the connection of the barrel with the breech piece, that the cartridge shall be exploded at a distance from the rear end of the barrel, thus rendering it less liable to burst; and so arranging it, that should it burst, no other part of the gun would be injured.

The accompanying drawings illustrate my invention, in which—

Figure 1. is a view showing my improved bomb gun, as it appears when ready for use. Fig. 2. is a view showing the upper side of my improved bomb gun, with the breech piece open, and a portion of the firing mechanism, in section. Fig. 3. is a side view, in longitudinal vertical section through the center of my improved bomb gun. Fig. 4. is a side view of the trigger. Fig. 5. is a front view of the hammer. Fig. 6. is a view of the front end of the firing shaft. Fig. 7. is a view of the front end of the breech piece. Fig. 8. is a side view of the hook, by means of which the gun is cocked.

Similar letters refer to similar parts in the several views.

a, represents the breech piece, having its rear end provided with a pole socket *c*, and its front end, with the screw threaded projection *e*.

d, represents one side of the breech piece which is hinged thereto, and adapted to be raised as shown when the gun is to be cocked, and held in a closed position, by a catch *d*³.

The projection *e*, has an opening in its center, communicating with the interior of the breech piece *a*, in which opening, rests the

front end of the firing shaft *a'*, provided with a spline *a*⁵, which fits in a groove in said opening, in order to prevent said shaft from turning. The rear end of said firing shaft, rests in a recess *c'*, in the rear wall of the breech piece. The firing shaft *a'*, is further provided with a shoulder *a*², a firing pin *a*⁴, and a spline *a*³.

e', represents a block, secured in the front end of the opening in the projection *e*, which is counterbored for the purpose, and is provided with the recess *e*², to receive the spiral spring *e*³, and an opening in its center for the passage therethrough of the firing pin *a*⁴. The function of the spring *e*³, is to retract the firing pin *a*⁴, after it has been driven into the cap of the cartridge by the hammer *d'*.

d', represents the hammer, having a hook *d*², adapted to slide on the smaller portion of the shaft *a'*, and is prevented from turning on said shaft, by the spline *a*³. The side of the hammer is provided with a pin *g*, adapted to engage with a projection *g*³, on the trigger piece, which is pivoted to the side of the breech piece, in such a manner as to be supported, by the spring *s*³, in a diagonal position over the slot *k*. The ends of the spring *s*³, encircle the pins *g*⁴, and *g*⁵, and the spring is thereby, held in place.

s, represents a spiral spring, surrounding the shaft *a'*, having its front end bearing against the hammer *d'*, and its rear end, resting in the annular groove *s*².

h, represents a shaft having enlarged head *h*³, and provided with the projection *h'*, adapted to slide in a socket *h*², secured to the side of the breech piece *a*, and having a slot in its inner side to coincide with the slot *k*, in the side of the breech piece, through which the projection *h'*, passes to actuate the trigger, as shown in Figs. 2. and 3.

i, represents a rod, having an offset *i'*, secured in the head of the shaft *h*, and projecting beyond the barrel of the gun.

b, represents the barrel of the gun, interiorly screw threaded at its rear end, to fit the screw threaded projection *e*, and chambered to receive the cartridge *b'*. The cartridge chamber is arranged at such a distance from the rear end of the barrel, that the end of the projection *e*, will bear against

the rim of the cartridge, before the barrel brings up against the face b^2 , of the breech piece; thereby holding it firmly, and preventing to a large degree, the recoil, when the gun is discharged. When the chamber is thus arranged away from the end of the barrel, there is also less liability of expanding or bursting the barrel, by the explosion of the cartridge. In the present construction, should the barrel explode, no other part of the gun would be injured; and as all the parts of the gun are interchangeable, another barrel can be quickly substituted.

c^2 , indicates lugs projecting from one side of each end of the breech piece, having orifices c^3 , adapted to receive the tapered shank of a harpoon, as shown in Fig. 1.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a bomb gun of the character described, the combination of the hammer d' , having the hook d^2 ; adapted to slide on the shaft a' , and having a pin g , projecting from its side; the shaft a' , adapted to have a slight longitudinal movement in the breech piece of the gun and having the shoulder a^2 , and provided with splines a^3 , and a^5 , whereby said shaft is prevented from axial motion, and having a firing pin a^4 , projecting from its forward end; the block e' , having chamber e^2 , secured in the front end of the breech piece, and provided with an opening in its center for the passage of the firing pin; the spiral spring e^3 ; the spiral spring s , surrounding said shaft a' , and adapted to impel said hammer at certain times; the trigger g^2 , having projection g^3 , pivoted to the side of the breech piece; the

spiral spring s^3 , adapted to support said trigger in position so that its projection g^3 , shall engage the pin g , on the hammer, at certain times; a shaft h , provided with a rod i , extending beyond the muzzle of the gun, adapted to slide in a socket secured to the side of the breech piece, and provided with a projection h' , extending through a slot in the side of the breech piece and engaging the trigger, whereby the hammer, when cocked, is released by shifting said rod i , to the rear; and a barrel b , interiorly screw threaded at its rear end to fit the screw threaded projection e , of the breech piece, and chambered to receive a cartridge, all as shown and described.

2. In a breech loading bomb gun, the combination of a breech-piece containing firing devices of the character described, adapted to be actuated as described, and having its front provided with an exteriorly screw threaded projection containing the firing pin; and a barrel, having its rear end interiorly screw-threaded to fit said projection, and provided with a cartridge chamber arranged immediately in front of said interior screw thread, whereby the rim of the cartridge shell is firmly clamped between the end of the projection on the breech-piece, and the cartridge chamber, and the cartridge exploded at a distance from the rear end of the barrel, as shown, and for the purpose set forth.

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Witnesses:

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