C. Bunge,

Spring Gun.

No. 94,279. Patented Aug. 31, 1869.

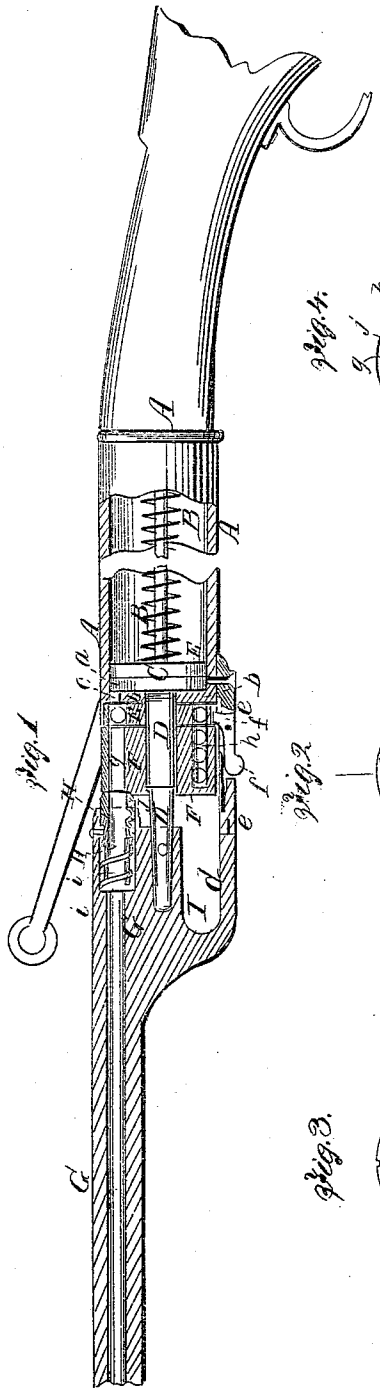


Fig. 1.

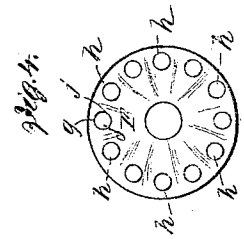


Fig. 4.

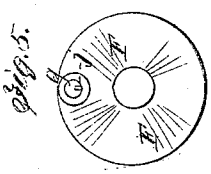


Fig. 5.

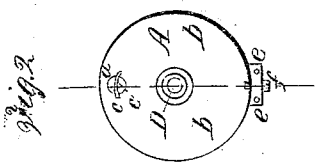


Fig. 2.

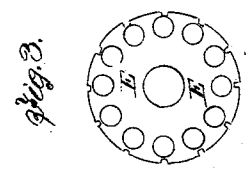


Fig. 3.

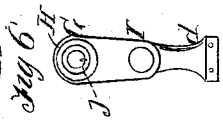


Fig. 6.

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CHARLES BUNGE, OF GENEVA, NEW YORK.

Letters Patent No. 94,279, *dated August* 31, 1869.

REVOLVING SPRING TOY-GUN.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, CHARLES BUNGE, of Geneva, in the county of Ontario, and State of New York, have invented a new and improved Revolving Spring-Gun; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a longitudinal vertical section of my improved spring-gun.

Figure 2 is a detail end view of the stock.

Figure 3 is a detail face view of the revolving feed-plate.

Figure 4 is a detail back view of the reservoir-plate.

Figure 5 is a detail face view of the same.

Figure 6 is a detail back end view of the barrel.

Similar letters of reference indicate corresponding parts.

This invention relates to a new spring air-gun, which is so constructed that it can be readily set to automatically place a charge into the barrel, or at least in line with the same, it being provided with a reservoir, which contains a suitable large number of charges.

The invention consists chiefly in the combination of a perforated revolving feed-plate, with a stationary supply or reservoir-chamber, from which, as the feed-plate is turned, the balls, constituting the charges, are transferred into the apertures of the feed-plate.

The invention consists, secondly, in separating the breech-end of the barrel from the main body of the same, and in interposing a spring between the two parts by which the reservoir is held tight against the feed-plate.

A, in the drawing, represents the stock of my improved spring air-gun.

It contains the propelling-spring B and piston C, which are, as in all ordinary spring air-guns, to force air through an aperture, *a*, in the face-plate *b* of the stock, said aperture having a cross-pin, *c*, as usual, to prevent the ball from falling into the stock.

From the stock A projects forward a centre-pin, D, around which two plates, E and F, are fitted, their diameters being about the same as that of the face-plate *b*.

The barrel G has a shank, I, formed on it, which is adapted to receive the end of the pin D, and which has an arm, *d*, that is locked to or fitted against the end of an arm, *e*, which projects from the stock, as shown.

The barrel is thus prevented from turning.

The inner plate, E, is the feed-plate. It is not much thicker than, or about as thick as the diameter of the balls used in the gun, and has a series of cylindrical apertures, each large enough to receive one ball.

The plate E can be revolved around the pin D, and has notched edges, so that it can be locked by a spring-catch, *f*, that is arranged in the arm *e* of the stock.

When thus locked, one of its apertures will be in line with the opening *a* of the face-plate *b*; when turned, it will be again locked, when its next aperture comes in line with the opening *a*, and so forth.

The plate F has one aperture, *g*, extending right through it, and in line with the bore of the barrel, and with the opening *a*. It is thus locked in line by the breech-end of the barrel, which fits into a recess provided in F, as shown in fig. 1, and cannot be turned.

There is, in the plate F, provided a series of chambers, *h h*, of about the same diameter as the bore of the barrel, each one extending from the inner face of the plate into, but not through the same.

Each chamber *h* is made large enough to hold six or more or less balls for the charges.

If there are twelve chambers *h*, each adapted for six balls, there will be seventy-two balls in this reservoir-plate F.

When a ball has been discharged through the barrel, and when, thereby, one of the apertures of the feed-plate has been emptied, the feed-plate is turned, and when its empty aperture arrives under one of the chambers *h*, that still contains a ball, or a number of them, the lowest ball of *h* will fall into the aperture of the feed-plate. Thus, as after each discharge, the feed-plate is turned, there will be a ball brought into line with the bore *g* of F, and with that of the barrel, and the full supply will be kept regularly up as long as there are any balls in the reservoir.

The first chamber, *h*, will first be emptied, as the empty apertures of E first arrive under it, and then the others in succession.

The breech-end of the barrel is made in form of a separate cylinder, H, fitted into a chamber that is provided in the body of the barrel, and forced, by means of a concealed spring, *i*, against the reservoir-plate, to hold the same always tight against the feed-plate, and the latter against the face of the stock. The loss of propelling-air through bad joints is thereby prevented.

In the bore of the reservoir-plate, or in the part H of the barrel, is arranged a very light inward-projecting spring, *j*, which is just strong enough to prevent the ball, that constitutes the charge, from falling out.

Having thus described my invention,

I claim as new, and desire to secure by Letters Patent—

1. The combination of the perforated revolving feed-plate E with the stationary reservoir-plate, which has the chambers *h* and the bore *g* in line with the barrel, all arranged and operating substantially as herein shown and described.

2. The separated breech-end H of the barrel, when forced by a spring, *i*, against the reservoir-plate F, substantially as and for the purpose herein shown and described.

Witnesses: CHARLES BUNGE.

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