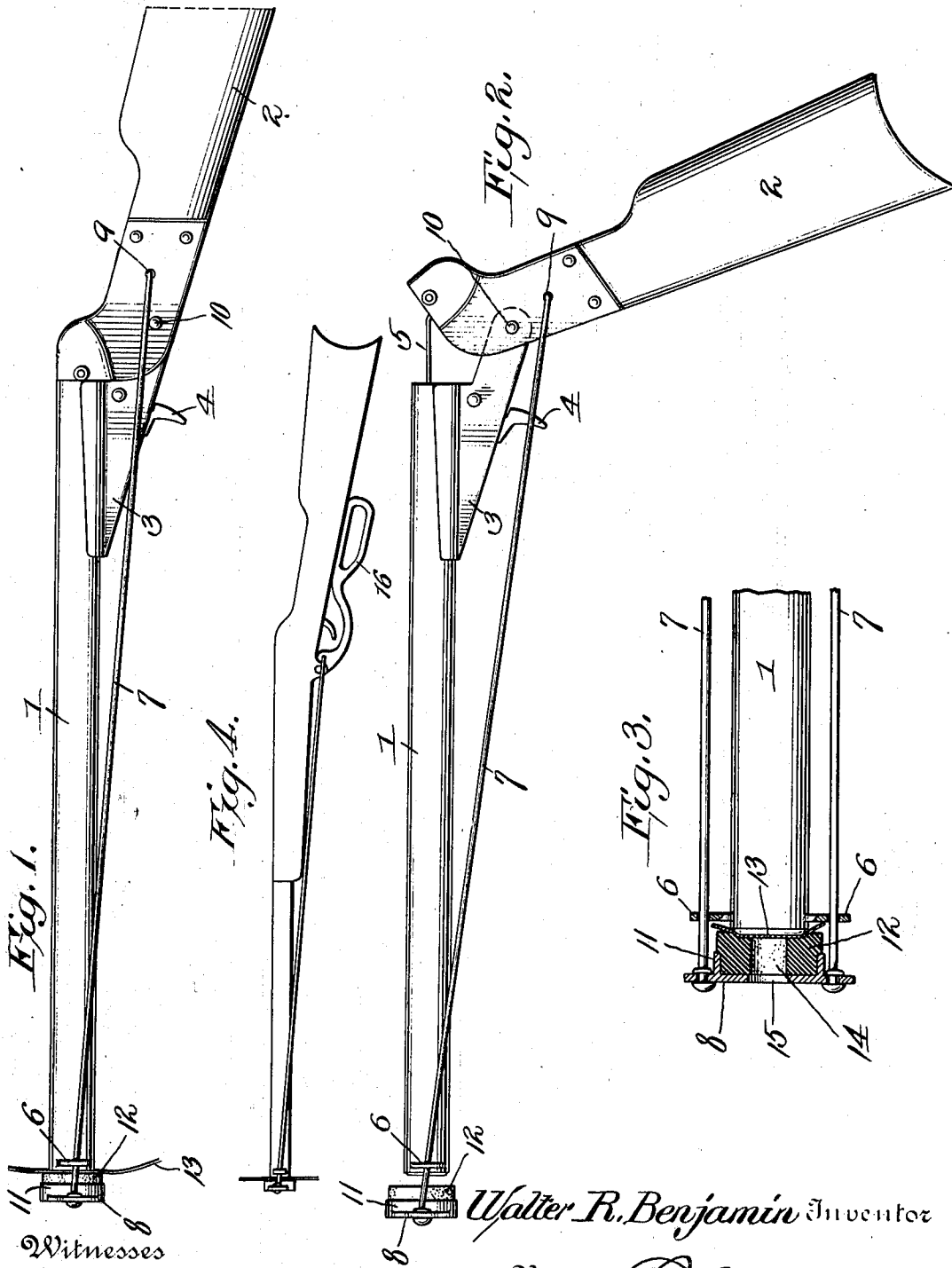


W. R. BENJAMIN.
TOY GUN.
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970,876.

Patented Sept. 20, 1910.



Witnesses

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UNITED STATES PATENT OFFICE.

WALTER R. BENJAMIN, OF GRANITE CITY, ILLINOIS.

TOY GUN.

970,876.

Specification of Letters Patent. Patented Sept. 20, 1910.

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To all whom it may concern:

Be it known that I, WALTER R. BENJAMIN, a citizen of the United States, residing at Granite City, in the county of Madison and State of Illinois, have invented a new and useful Toy Gun, of which the following is a specification.

The object of this invention is to provide an attachment for a pop-gun whereby the gun will be adapted to act upon a film of paper or similar material to perforate the same with an explosive report similar to that produced by the use of ordinary caps.

The preferred embodiment of the invention is illustrated in the accompanying drawings, and the invention consists in certain novel features of the same, as will be hereinafter first fully described and then more particularly pointed out in the appended claims.

In the drawings, Figures 1 and 2 are side elevations of a pop-gun equipped with my improvements, Fig. 1 showing the gun arranged to produce the report, and Fig. 2 showing it arranged to permit feeding of the film to bring another portion of the same into position to be acted upon by the gun. Fig. 3 is a detail sectional view of the forward end of the gun barrel and the attachment, showing the same on a slightly larger scale. Fig. 4 is a side elevation showing a slightly different application of the invention.

The toy gun may be of any well known form and is shown consisting of a barrel 1, a stock 2 pivotally connected to a bracket 3 at the breech end of the barrel, and a trigger 4 mounted within the said bracket 3 and adapted to release a piston (not shown), which may be retracted through a link 5 pivotally attached to the stock, as shown. At the forward end of the barrel 1, and at diametrically opposite points of the same, I provide outstanding guides or ears 6 having enlarged perforations through which pitmen or connecting rods 7 extend from the stock to a cap 8 disposed in advance of the front end of the barrel. The rear ends of the connecting rods 7 are pivoted to the stock at a point 9 so arranged that when the stock is thrown down, as indicated in Fig. 2, to withdraw the plunger, the ends of the connecting rods will be disposed below the fulcrum or pivot 10 of the stock, whereas when the stock is raised to close

the breech, the said pivotal point 9 will be above and in rear of the pivot or fulcrum 10 so that a direct pull will be exerted upon the cap 8 to hold the same against the front end of the barrel and prevent its accidental dislodgment. The cap 8 is preferably constructed of sheet metal or some other light, strong material, and is provided on its face opposed to the barrel 1 with an annular flange 11 within which is fitted a cushion or plug 12 of rubber or other elastic material which is adapted to be drawn tightly against the end of the barrel when the stock is raised, as will be readily understood on reference to Fig. 3. A narrow film or strip 13 of paper or similar material is fitted between the end of the barrel and the said plug, and the plug and the cap are provided with central perforations 14 and 15, respectively, which will aline with the bore of the barrel when the toy is arranged for producing an explosion in order to provide an outlet for the compressed air and, consequently, permit the perforating of the film and the production of the explosive report.

It is believed the operation and advantages of my improved device will be readily appreciated from the foregoing description, taken in connection with the accompanying drawings. The gun is broken at the breech to draw the plunger toward the rear end of the barrel, as shown in Fig. 2, and this operation will move the cap 8 and the plug 12 away from the barrel so that a space will be provided through which the film or strip may be introduced and fed. The film or strip having been brought into position over the end of the barrel, the stock is raised so as to close the breech, and this movement will draw the cap and its attached plug against the end of the barrel and clamp the film closely around the end of the barrel so that it will be stretched thereover. If the trigger be then released, the plunger will be projected in the usual manner so as to compress the air in front of the same against the film, and the pressure thus created will be sufficient to burst the film and produce a loud report.

It will be readily seen that my invention dispenses with the use of explosive caps or other dangerous elements ordinarily incident to the use of toy firearms and may be operated to any desired extent without any expense for ammunition, while the report

produced by the use of the gun is the same in all respects as that ordinarily produced by the explosion of percussion caps.

My attachment is composed of very few parts so that it can be produced at a trifling cost and, when in position, will hold the film stretched over the end of the gun so that the pressure of the compressed air within the barrel will cause a bursting of the film in its effort to escape through the central perforations of the cap and its attached plug.

While I have shown the connecting rods as connected to and operated by the stock, my invention is not limited to such arrangement and other means may be utilized to move the cap to and from the barrel and hold it in the clamping position, such as the lever 16, Fig. 4.

From the foregoing description, taken in connection with the accompanying drawings, the advantages of the construction and of the method of operation will be readily apparent to those skilled in the art to which the invention appertains, and while I have described the principle of operation of the invention, together with the device which I now consider to be the best embodiment thereof, I desire to have it understood that the device shown is merely illustrative, and that such changes may be made when desired as are within the scope of the claims appended hereto.

Having thus described the invention, what I claim as new, and desire to secure by Letters Patent, is:—

1. The combination with a toy air gun having a movable element, of a perforated plug adapted to fit against the end of the gun, and means for connecting the said element with the plug so that the latter may be moved to and from the gun by the movement of the said element.

2. The combination with a toy air gun having a movable stock and provided with guides on its barrel at the front end of the same, connecting rods playing through said guides and pivotally attached to the stock, and a perforated plug carried by the said connecting rods and adapted to hold a film against the end of the barrel.

3. The combination with a toy air gun having a movable stock, of connecting rods pivotally attached to the said stock, and a perforated plug carried by the front ends of said connecting rods and adapted to clamp a film over the end of the gun.

4. The combination with a toy air gun having a movable stock, of connecting rods pivotally attached to the said stock, a cap

carried by the front ends of said rods, and an elastic perforated plug secured to said cap and adapted to fit against the end of the gun.

5. The combination with a toy air gun having a movable stock, of connecting rods actuated by said stock, a cap carried by the front ends of said rods and provided with an annular flange, and an elastic perforated plug fitted within said flange and adapted to hold a film against the end of the barrel.

6. The combination with a toy air gun having a movable stock, of a perforated cap arranged in advance of the gun, connecting rods pivoted to the stock and carrying the said cap, and a centrally perforated elastic plug carried by the said cap and adapted to hold a film over the end of the gun.

7. The combination with a toy air gun comprising a barrel and a stock pivotally supported by the barrel, of a cap disposed in advance of and adjacent to the front end of the barrel, and connecting rods secured to said cap and having their rear ends pivoted to the stock adjacent and in rear of the fulcrum of the same.

8. The combination with a toy air gun, of a perforated plug adapted to fit against the outer end of the barrel of the gun, a movable element forming a part of the gun, means for connecting the said element with the said plug, said element being movable from its normal position to carry the plug away from the outer end of the barrel and when restored to its normal position drawing the plug against the barrel.

9. The combination with an air gun having a pivoted element forming a part of the gun, a perforated plug adapted to fit against the outer end of the barrel of the gun or to be moved away from the same, and means for connecting the said element with the said plug, whereby the said element in its normal position holds the plug against the end of the barrel and acting as a lever serves to move the said plug beyond the end of the barrel.

10. The combination with a toy air gun, of a perforated plug, a support for the plug mounted on the gun, and means carried by the gun for actuating said support whereby the plug may be moved to and from the end of the barrel to clamp a film thereagainst.

In testimony, that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

WALTER R. BENJAMIN.

Witnesses:

G. E. WHITTEN,
LOVE E. ERWIN.