(No Model.) 2 Sheets—Sheet 1.

B. BECK & W. LIEBRECHT.

BLOW GUN.

No. 565,423. Patented Aug. 11, 1896.

Fig. 1

Fig. 2

Fig. 3

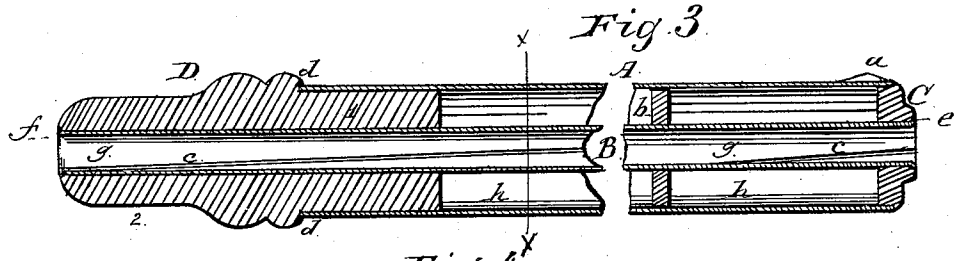


Fig. 4

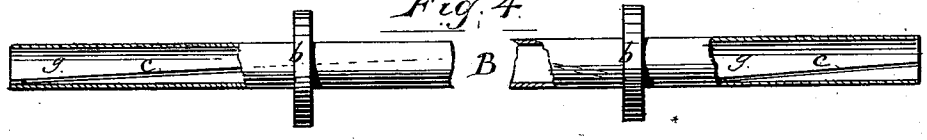
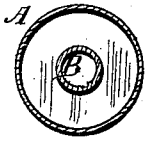


Fig. 5



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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

(No Model.) 2 Sheets—Sheet 2.

B. BECK & W. LIEBRECHT.

BLOW GUN.

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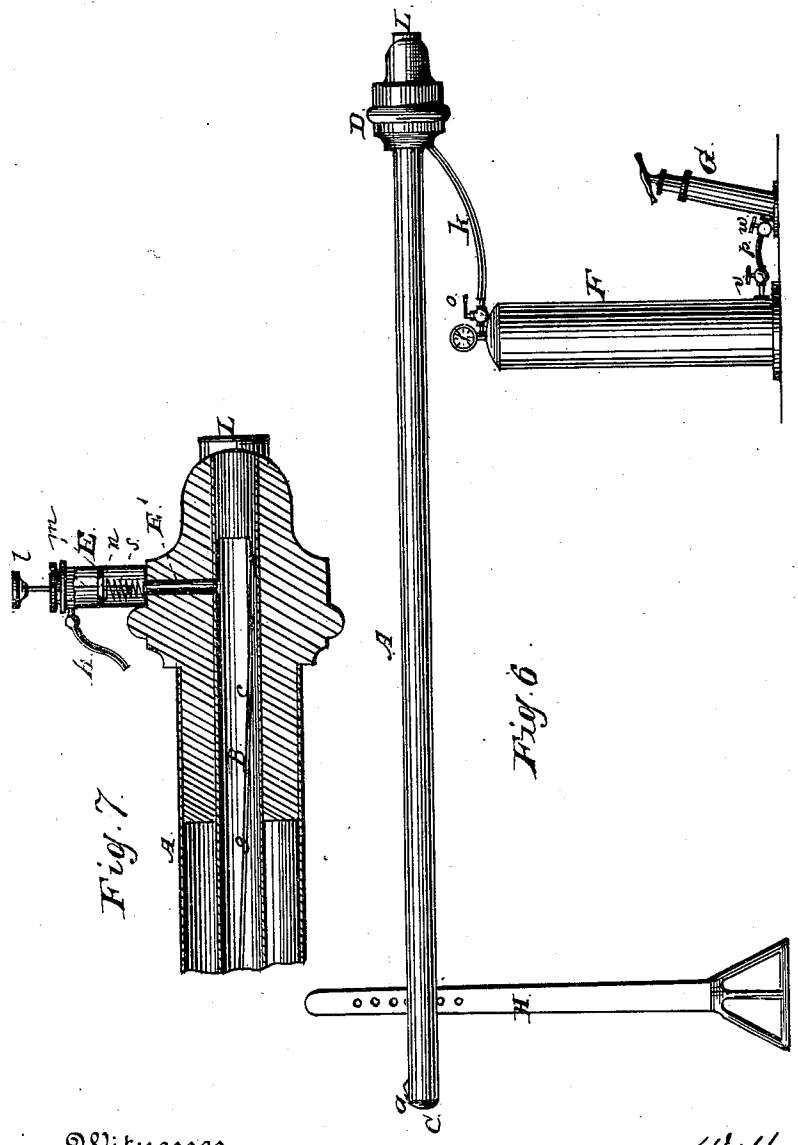

Fig. 6.

Fig. 7.

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UNITED STATES PATENT OFFICE.

BRUNO BECK AND WILHELM LIEBRECHT, OF CHICAGO, ILLINOIS.

BLOW-GUN.

SPECIFICATION forming part of Letters Patent No. 565,423, dated August 11, 1896.

Application filed March 3, 1896. Serial No. 581,709. (No model.)

To all whom it may concern:

Be it known that we, BRUNO BECK, a citizen of the United States, and WILHELM LIEBRECHT, a subject of the German Emperor, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Air-Guns, of which the following is a specification, reference being had to the accompanying drawings, which form a part thereof.

Our invention relates to air-guns, in which the projectiles are expelled by the breath or the use of compressed air.

Heretofore air-guns, under the name of "blow-tubes," in which arrows or other suitable projectiles are placed and driven out with more or less force of the breath, were made generally of wood; but to produce an air-gun or blow-tube of this kind, being perfect in all respects as to durability and accuracy, will readily be understood is not an easy task.

The object of our invention is not only to produce a durable blow-tube being nice in appearance and simple in construction, so as to be easily handled and made at a small expense, and as to its range and accuracy far superior to any now known, but also an air-gun well adapted for amusement purposes, as shooting at the target, &c.; and to this end our invention consists in the construction, arrangement, and combination of parts, as hereinafter will be more fully described, and specifically pointed out in the claims.

In the drawings, Figure 1 is a side elevation of our invention. Fig. 2 is a detail. Fig. 3 is a longitudinal vertical section of our invention. Fig. 4 is a detail having reference to Fig. 2. Fig. 5 is a cross-section at the line x x in Fig. 3. Fig. 6 shows our invention when compressed air is applied. Fig. 7 is a longitudinal horizontal section of the butt-end of our gun.

Our combined blow-tube and air-gun is composed of the exterior tube A and the interior one B. At the outer end of the tube A is a stop C, forming a bearing for the outer end of the tube B. The mouthpiece D is slipped over one end of the tube B and firmly secured thereto, as it tightly fits around said tube B, which is expanded at f, so as to overlap toward the outer circumference of the mouthpiece D. (See Fig. 3.) The tube B is provided with collars b b, which are firmly secured thereto. Thus the tube B, when attached to the mouthpiece D and provided with the collars b b, will constitute a piece by itself capable of being inserted into the tube A, so that both the tube A and the tube B will form a solid whole or unit, for the part 1 of the mouthpiece D will tightly fit in the upper end of the tube A, which will strike against the shoulder d of the mouthpiece, while the outer end of the tube B will rest in the circular opening of the stop C, where it will expand a little to the outside circumference, so as to overlap at e, (see Fig. 3,) and soldered thereto. Thus it will be readily understood the tubes A and B, in this manner united and finished, will make a durable blow-tube and the barrel proper for an air-gun, as they are supported well by each other not only at their ends, but also in the middle at certain distances by means of the collars b b, whereby all desired stability is attained.

The mouthpiece D is made of wood and may, like the stop C, be provided with an ornamental outfit. The tubes A and B, with the collars b b and stop C, are preferably made of brass.

E is a small cylinder having at the bottom a pipe E′, entering into a corresponding opening of the mouthpiece D and tube B, so that a communication is produced between the interior of the cylinder E and the bore g or interior of the tube B. There is a partition m in the cylinder E, provided with a valve-seat for the valve n, firmly secured to the pin l', having a spiral spring s surrounding it and holding up the valve to its seat. This cylinder E, thus sidewise attached to the mouthpiece D, is connected by a rubber hose k with a drum F, in which compressed air is stored by means of the air-pump G, said drum F and air-pump being connected by the rubber hose p at v and w.

L is a combined cap and stopple for closing the orifice of the mouthpiece D when the projectile to be expelled is placed in the bore g or the interior of the tube B and compressed air is to be applied by pressing down the knob l.

H is a standard serving as a support for

our blow-tube or air-gun, facilitating the direction of the same in shooting at a target or any other object in view.

To increase both the accuracy and range of our combined blow-tube and air-gun, we provide the bore *g* of the inner tube B with a rifle-groove *c*, the winding to be one and one-fourth of the entire length of our shooting instrument.

a is a sight or aim affixed to the end of our air-gun.

In using our invention any suitable projectile adapting itself to the bore may be chosen and placed in proper position through the orifice of the mouthpiece D, so as to be easily blown by more or less force of the breath of the user or the application of compressed air, as the case may be.

We make our blow-tubes or air-guns of any length suitable to the desired purpose, generally five feet, more or less; but the diameter of the exterior tube is generally one inch and that of the interior tube three-eighths of an inch.

It is obvious the construction of a combined blow-tube and air-gun, as described, enables us to furnish the same satisfactory in all respects.

Having described our invention, what we claim, and desire to secure by Letters Patent, is—

1. A blow-gun, composed of two tubes, one inserted in the other, and supported at their ends by a mouthpiece, D, and a stop, C, so as to form an annular space, all combined and constructed, substantially, as shown and described.

2. A blow-gun, composed of two tubes, one inserted in the other one, and supported at their ends by a mouthpiece, D, and stop, C, and collars, so as to form annular spaces between the mouthpiece, D, and stop, C, all combined and constructed, substantially as set forth.

3. A blow-gun, composed of two tubes, one inserted in the other one, and being supported by the mouthpiece, D, and the stop, C, so as to form an annular space, the bore of the inserted tube being provided with a grooved rifle, all combined and constructed, substantially as set forth.

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