

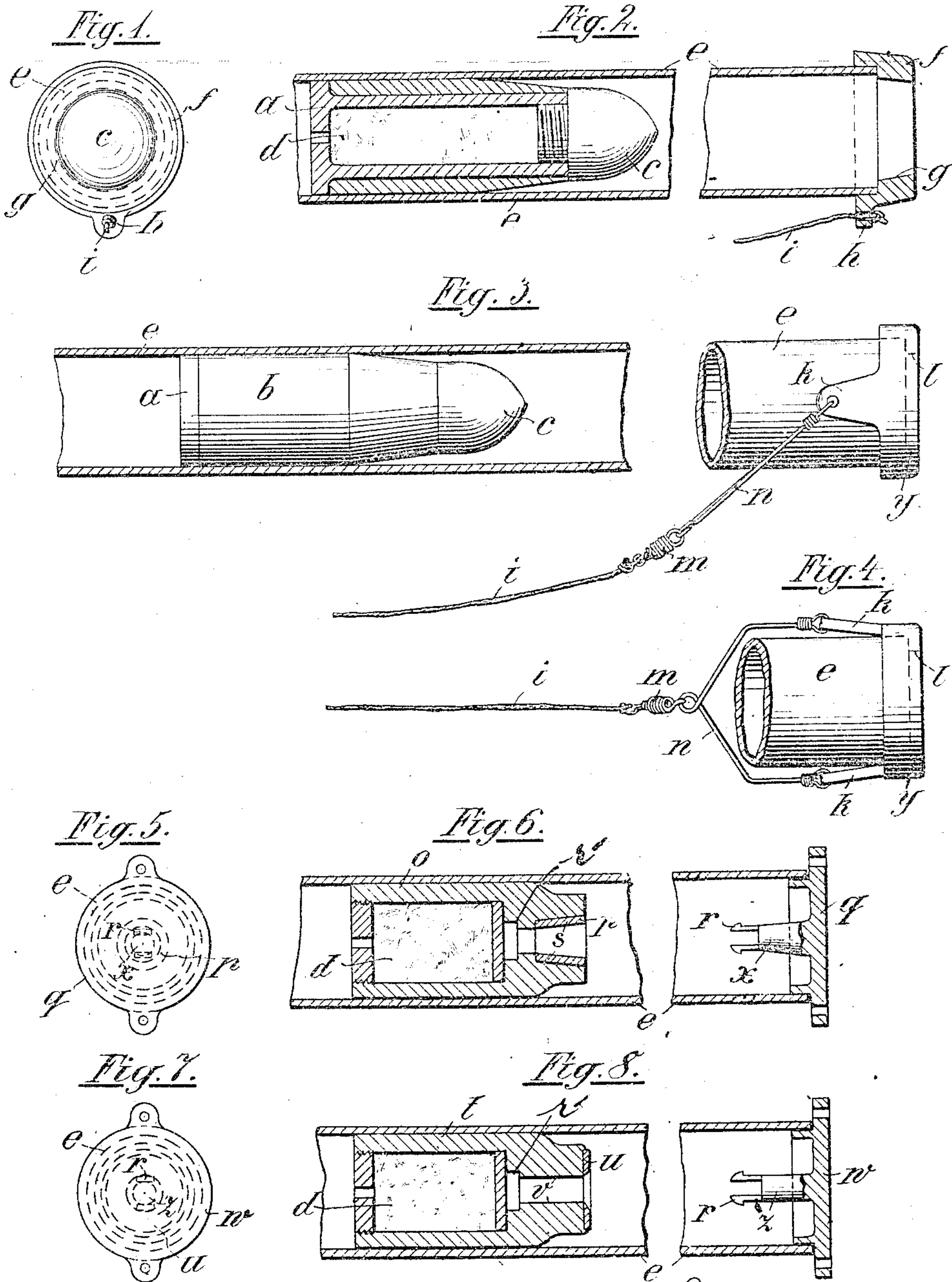
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DEVICE FOR PROJECTING LIFE LINES.

APPLICATION FILED JAN. 27, 1906.



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UNITED STATES PATENT OFFICE.

BURKARD BEHR, OF HAMBURG, GERMANY.

DEVICE FOR PROJECTING LIFE-LINES.

No. 843,385.

Specification of Letters Patent.

Patented Feb. 5, 1907.

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To all whom it may concern:

Be it known that I, BURKARD BEHR, a citizen of the German Empire, residing at Hamburg, in the State of Hamburg, Germany, have invented certain new and useful Improvements in Devices for Projecting Life-Lines, of which the following is a description, reference being had to the accompanying drawings and to the letters of reference marked thereon.

This invention relates to a device which is adapted for projecting or firing life-saving lines. For this object a ring capable of engagement with the shot is mounted in front on the gun-barrel, to which ring the life-saving line is suspended and which is carried along with the shot.

The characteristic feature of the present invention consists in the shot being surrounded at those places on which the ring engages with a casing of softer metal—such, for instance, as copper or lead—whereby the shock when the ring is struck and carried along is diminished.

Some forms of construction of the object of the present invention will now be explained, and these mainly embrace two groups. In the one the ring is mounted on the shot when carried along with it, while in the other the shot engages over a projection of the ring, preferably provided with spring tongues or protuberances. In all the forms of construction, however, the resting-place of the ring on the shot according to the present invention is made of softer material. Preferably the shot is made hollow and filled with a propelling substance, which imparts a more exact direction to its flight and also makes the same visible in darkness.

The object of the present invention is shown in several forms of construction in the accompanying drawings, in which—

Figure 1 is an end view, and Fig. 2 an axial longitudinal section, of a shot and ring according to the first form of construction. Fig. 3 shows an elevation of the shot and a ring of altered form mounted on the barrel, part of the barrel being shown in section. Fig. 4 is another view of this ring and shows the introduction of an intermediate member between the ring and the line for better absorbing the shock. Fig. 5 is an end view, and Fig. 6 a longitudinal section, of the shot and ring in a second form of construction. Fig. 7 is an end view, and Fig. 8 is a longitudinal sectional view, of the same.

The shot *a* (shown in Figs. 1 and 2) is cylindrical and hollow and also provided with a cupola-shaped point. According to the present invention the shot or projectile in one form of construction is provided with a casing *b*, of soft material—such, for instance, as copper or lead—which is slightly tapering in front. The life-saving line *i* is attached to the lug *h* of a ring *f*, which is mounted on the mouth *e* of the barrel and serves for conveying the line *i*. This ring has a conical bore *g*, corresponding to the cone of the shot *a*, in which bore the shot *a* after being fired enters, and in this manner carries with it the ring *f* and the line *i*. Another shape of this ring is shown in Figs. 3 and 4, in which, instead of the tapering bore, it has a cylindrical bore *l*. Also instead of one lug *h*, as shown in Figs. 1 and 2, several such may be provided. Thus, for instance, in Fig. 4 a ring *y* is shown with two such lugs *k*, and here, in addition, between the line *i* and the ring *y* a spring intermediate member *m* is also interposed, whereby the shock arising when the shot carries the ring with it is still better absorbed.

In the shots *o* and *t* (shown in Figs. 6 and 8) the ring in being carried with them is not mounted on the casing of the shot, but the latter engages over a corresponding projection of the ring. For this object on the ring *q* in Fig. 6 a conical projection *x* is provided; and similarly on the ring *w* (shown in Fig. 8) a cylindrical projection *z*, which carry above spring hooks or protuberances *r*. The respective shots *o* and *t* are provided with suitable conical and cylindrical recesses or turned out parts *s* and *y*, respectively, which serve for receiving the projections, while on the ring *q* and *w*, being carried along with the shots, the hooks *r* are first compressed by reason of their elasticity and then engage behind corresponding shoulders *r'* on the shots *o* and *t*, so that their hold is secure. Here also the respective resting-places *p* and *u*, according to the present invention, are covered with softer metal.

Preferably all the shots are filled with a propelling substance *d*, the gas of which can escape during the flight through a perforation formed in the bottom.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is—

1. In combination, a line-carrying ring adapted to be carried by the muzzle of a gun,

and having a bore of less diameter than that of the gun, and a projectile having a tapered sleeve of soft metal arranged rearward of its point for engagement with the ring.

5 2. In combination, a line-carrying member, a projectile and a positive interlocking means between the two.

3. In combination, a line-carrying member, spring-fingers thereon, and a projectile
10 having a shoulder for interlocking with said fingers.

4. In combination, a line-carrying member, spring-fingers thereon, and a recessed

projectile having shoulders for interlocking with said fingers.

15 5. In combination, a line-carrying member, spring-fingers therein, a projectile having a tapered recess for the reception of said fingers, said recess having a lining of yield-
20 able material.

In testimony whereof I affix my signature in presence of two witnesses.

BURKARD BEHR.

Witnesses:

OTTO W. HELLMRICH,
IDA CHRIST. HAUFERMANNY.