R. P. ORR.

ARROW.

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1,424,674.

Patented Aug. 1, 1922.

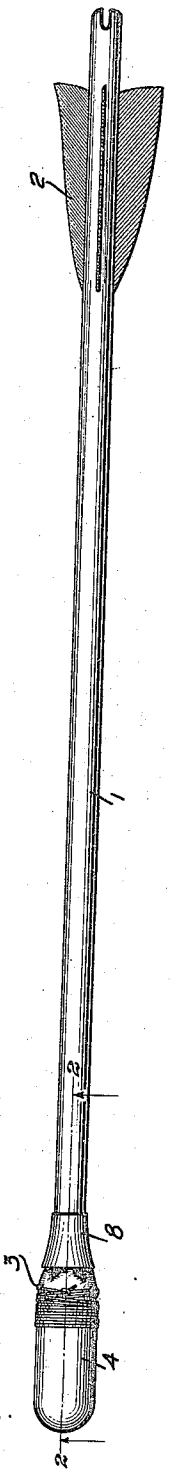


Fig. 1.



Fig. 3.

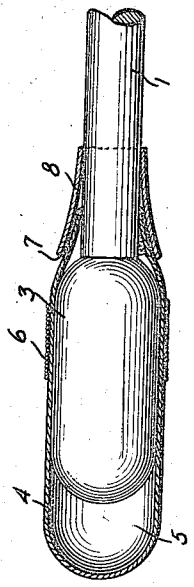


Fig. 2.

WITNESSES

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ARROW.

1,424,674. Specification of Letters Patent. Patented Aug. 1, 1922.

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To all whom it may concern:

Be it known that I, ROBERT P. ORR, a citizen of the United States, and a resident of Albany, in the county of Albany and State of New York, have invented a new and Improved Arrow, of which the following is a full, clear, and exact description.

This invention relates to arrows and has for an object to provide an improved construction wherein the head is formed to utilize the yielding quality of confined air.

Another object is to provide an arrow of any usual construction with a head having an end member of resilient material confining the quantity of air whereby an air cushion is presented without interfering with the provision of a proper weight to the head.

A still further object of the invention is to provide a rubber bag at the front end of the head of an arrow and secure the same in place by adhesive, cord or the like so that a confined air chamber will be provided in front of the head of the arrow.

In the accompanying drawing—

Figure 1 is a side view of an arrow disclosing one embodiment of the invention.

Figure 2 is a longitudinal vertical section through Figure 1 on line 2—2.

Figure 3 is a view similar to Figure 2 but disclosing a slight modified form of the invention.

Referring to the accompanying drawing by numerals, 1 indicates the body of the arrow which may be provided with feathers 2 if desired. The body 1 at the front merges into a head 3 so as to provide the proper weight, though if desired a separate head could be provided and secured to body 1. Arranged on the head 3 is a cushioning member 4 formed as a rubber bag, open at one end and arranged to fit snugly over the head 3 so that the closed end will project beyond the forward end of the head 3 and thereby present a closed air chamber 5.

As shown in Figures 1 and 2, the bag or cushioning member 4 is held in place on the head 3 by a number of turns of a ligament 6 and also the extreme end is clamped to the body 1 by a number of turns of a ligament 7. Preferably, an ornamental and covering member 8 is mounted on the body 1 and overlaps the windings 7. The member 8 may be paper, cloth or other desired material. By constructing the arrow as just described, the usual weight at the head end is secured and at the same time an air cushion is provided in front of the head 3 so that when the air strikes an object it will not do any appreciable injury. The arrow may be used in shooting small animals and birds so as to stun the same and thereby effect a capture without permanently injuring the animals or birds.

In Figure 3 will be seen a slight modified form of the invention in which the resilient member or bag 4′ is secured to the head 3 by an adhesive instead of by the ligaments 6 and 7 and the ornamental or finishing cover 8 is arranged as shown in Figure 2, so as to give a finished appearance to the article. Preferably, the bag or cushioning member 4 is made from some good quality of rubber which is of the right thickness to retain its form ordinarily but to readily collapse when striking a solid object. This collapsing, of course, is retarded not only by the consistency of the rubber but by the speed in which the air escapes from chamber 5 or is compressed therein.

In use the arrow is to be operated in the usual manner of the ordinary arrow now on the market. It may be used on the same bow as now commonly used but will not, of course, penetrate a target in case the same is shot at a target. However, target practice may be had and a proper score kept by observing carefully where the arrow strikes or providing a coating on the target so that when the arrow strikes an impression will be produced.

What I claim is:—

1. An arrow comprising an elongated head, a body, a tubular rubber bag open at one end and completely enclosing said head so that the closed end will project beyond the front end of the head, a ligament binding the open end of the bag to said body and a ligament binding said bag intermediate its ends to said head.

2. An arrow comprising a body provided with a head, an elongated rubber bag open at one end and completely enclosing said head so that the closed end will project beyond the front of the head, a ligament for clamping the bag to said body, and a ferrule on the body and overlapping the open end of the bag.

ROBERT P. ORR.