

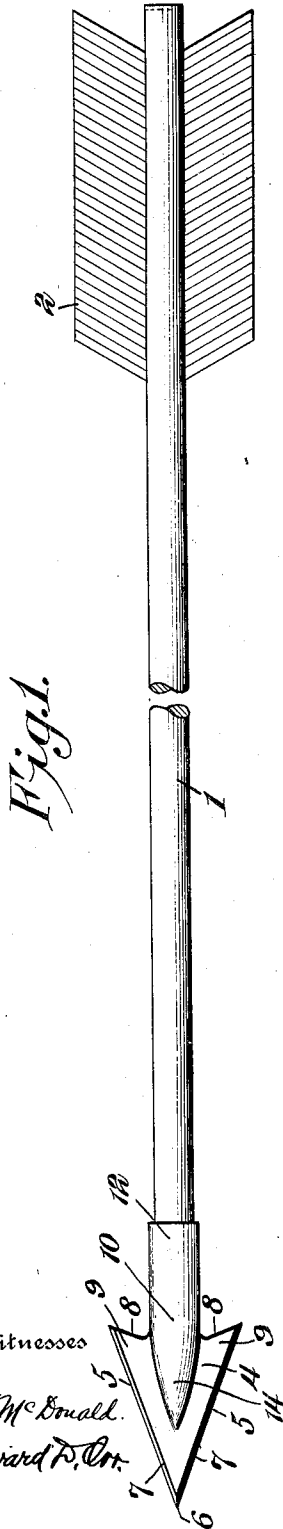
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O. A. NORLUND

DETACHABLE ARROW HEAD

Filed Jan. 25, 1926



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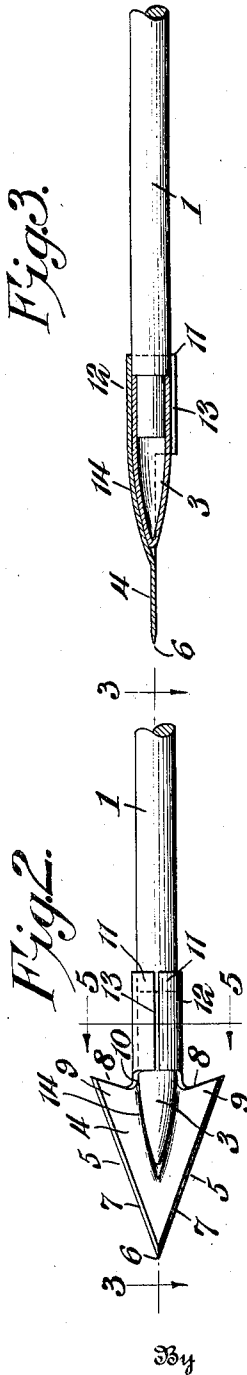
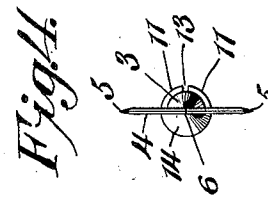
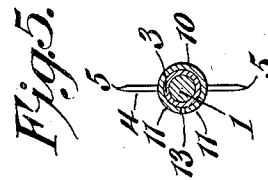
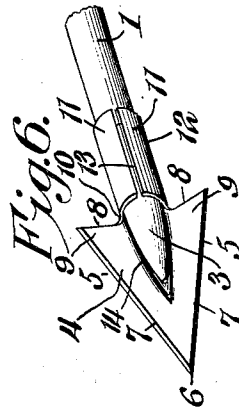


Fig. 3.



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UNITED STATES PATENT OFFICE.

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DETACHABLE ARROW HEAD.

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This invention relates to arrow heads, and has for its object to provide a metallic head, formed, preferably, of hardened sheet steel, and so shaped and proportioned as to be readily applied to the nose ends of ordinary arrows used by archers for target shooting and amusement, to convert said arrows into weapons for killing game animals, etc.

Another object is to provide a detachable arrow head for the above purpose which has the necessary penetrating point, cutting edges along the flaring sides thereof and the usual retaining hooks or barbs, and which may be readily formed of a single piece of sheet metal, suitably cut and pressed into a form having means for frictionally engaging the said nose end in a manner to rigidly hold the same in position during use of the same, and which may be as readily removed when it is desired to use the arrow again either for target practice or as a weapon with another head applied.

A full and complete understanding of the invention may be obtained from a consideration of the following detailed description, taken in connection with the accompanying drawing forming a part of this specification, it being understood that while the drawing shows a practical form of the invention, the latter is not confined to strict conformity with the showing thereof, but may be changed or modified, so long as such changes or modifications mark no material departure from the salient features of the invention, as specifically pointed out in the appended claims.

In the drawing, in which similar reference characters designate corresponding parts throughout the several figures:—

Figure 1 is a side elevation of an ordinary archer's arrow having the improved arrow head applied thereto.

Figure 2 is a reverse side view of the nose end of the arrow and the head.

Figure 3 is a longitudinal section on the line 3—3 of Figure 2.

Figure 4 is a front end view of the device.

Figure 5 is a transverse section on the line 5—5 of Figure 2.

Figure 6 is a perspective view of the head applied to the arrow.

Archers, in ordinary target shooting, generally use an arrow such as shown in the drawing and which comprises a staff 1

formed of suitable strong and tough wood of light weight and having at the trailing end, opposite feathers or other thin webs or fins 2 to guide and steady the arrow in its flight. At the front end the staff is usually provided with a thin metal ferrule or nose 3, which may be provided with a rounded or tapered end or striking point, the said ferrule being set into the staff and frictionally held thereon, so that the outer surface of the same is flush with the surface of the staff.

The improved, detachable arrow head comprises a body member 4 formed of thin, flat, hardened steel and is of triangular shape, having its opposite tapering side edges 5 converging towards the front, at an acute angle to each other, to provide the sharp penetrating point 6. The side edges 5 are bevelled on each side to provide cutting edges 7 for facilitating the entrance of the arrow into the object, and the rear edge of the triangular arrow head, at either side of the staff 1, is inclined forwardly as indicated at 8, to provide opposite side hooks or barbs 9 which serve, in the usual manner, to prevent the arrow head from being easily removed from the wound.

Projecting from the rear edge of the body portion 4 is an extension 10 which is normally provided with side wings 11, and the said extension is bent or formed into concave form longitudinally thereof, and the said wings are accordingly bent to complete the circle and provide a tubular sleeve or extension 12, joined integrally with the body member, the said sleeve having the longitudinal slit 13, co-extensive therewith, and formed by the abutting outer edges of said wings, to provide an expansible sleeve to be forced on over the nose end of the arrow, and to exert a constant pressure inwardly to frictionally retain the head in position thereon.

The concavity of the extension 10 is extended on into the body member 4 and tapered to a point somewhat in advance of the center of the head, to form a half-round seat 14 for the tapered nose or ferrule 3 of the arrow, and it will be noted that, when the latter is fully seated therein, the outer end of the sleeve or tubular extension 12 overlaps the open end of the ferrule or nose and clamps also on the wooden staff 1, so that the frictional engagement of the nose

with the staff is not wholly depended on to retain the improved arrow head on the arrow. It will be further noted that, by reason of the semi-circular cavity formed in the body member and the extension 10, the plane of the arrow head proper is located exactly in alinement with the longitudinal axis of the staff of the arrow, as viewed edgewise of the body member, so that a perfect balance is maintained and the arrow is prevented from lateral deflection in its flight, and the added weight of the metallic head serves to lend added impetus or speed during said flight, to cause the same to carry farther and to more forcefully strike the prey. The convex side of the tapered seat 14, by being tapered or pointed at its front end as shown in Figure 1 of the drawing and which partially surrounds or houses the nose of the arrow, offers no resistance to the flight by the impact of the air.

From the foregoing it will be seen that an extremely simple, strong and durable and cheaply manufactured arrow head has been provided which may be readily applied to ordinary archery arrows for converting the same into weapons or removed therefrom when desired, the said detachable head serving to guide the arrow in its flight and cause the same to strike a harder blow.

What is claimed is:—

1. An arrow head formed of sheet metal and having a flat body portion of triangular shape, one point of the body constituting the point of the arrow head, an integral sleeve formed of the sheet metal and extending rearwardly from the body and in longitudinal alinement with the said point to receive the nose end of an arrow.

2. A sheet metal arrow head of triangular form having two of its sides at an acute angle to each other, the apex formed thereby constituting the point of the arrow, and the edge of each side being oppositely bevelled to provide cutting edges, a tubular sleeve formed of the sheet metal of the head and extending to the rear of the same, said sleeve having a longitudinal slot or seam extending throughout its length to permit the same to be forced on and to frictionally engage with the nose end of an arrow.

3. A detachable arrow head for converting an archery arrow into a weapon, said head

comprising a flat triangular sheet steel body portion having acute side edges tapering towards the front to provide a penetrating arrow point and being oppositely bevelled to provide side cutting edges, said body portion having an integral, rearwardly extending sleeve arranged in longitudinal alinement with the point of the arrow and being slitted from end to end thereof to clamp the nose end of said arrow.

4. A detachable sheet metal arrow head adapted to be frictionally held on the nose end of an archery arrow, comprising a triangular body member having bevelled or sharpened side edges arranged at acute angles to provide a front penetrating point, the sheet metal of the body being depressed along the longitudinal median line to provide an elongated concavity tapered toward the point of the arrow, a rearwardly extending sleeve formed integrally with the body portion and projecting equally from each side face of the latter, said sleeve being split throughout its length at a point opposite to its juncture with the body to permit the nose end of an archery arrow to pass therethrough and to be seated in said concave depression with the arrow head alined with the longitudinal axis of the staff of the arrow.

5. A detachable sheet metal arrow head for attachment to archery arrows, comprising a triangular body portion having sharpened side edges tapering to a penetrating point at the front end, an integral extension projecting centrally from the rear transverse edge of the triangular body, said extension having side wings and being bent, together with the wings, into a longitudinal, tubular sleeve having a continuous longitudinal slit therein, the semi-circular depression in said extension being continued on into the body and terminating in a point in rear of the point of the arrow head, to locate the latter in alinement with the longitudinal axis of the arrow staff, and the rear edge of the body at each side of the sleeve being undercut to provide opposite side hooks or barbs.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature.

OLOF A. NORLUND.