

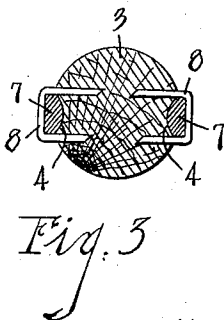
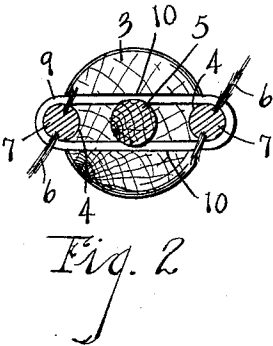
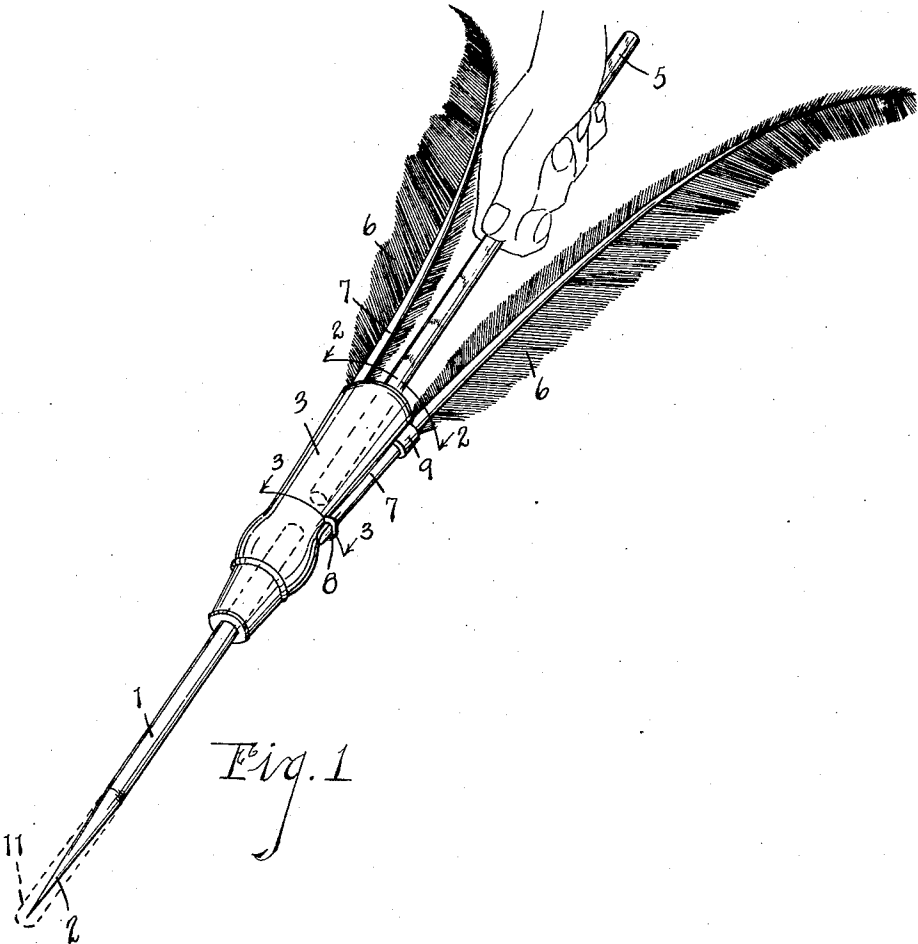
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HAND PROPELLED PROJECTILE

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HAND PROPELLED PROJECTILE

Application filed July 21, 1930. Serial No. 469,455.

The main object of this invention is to provide a hand propelled projectile; that is, one adapted to be thrown, which is well adapted for throwing at a target and is quite accurate in flight.

Objects relating to details and economies of my invention will appear from the description to follow. The invention is defined and pointed out in the claims.

A structure which is a preferred embodiment of my invention is illustrated in the accompanying drawing, in which:

Fig. 1 is a perspective view of my improved projectile shown with a hand grasping the same to illustrate the manner of grasping for throwing the shaft, the projectile illustrated being provided with a sharp point, a blunt pointed shaft being indicated by dotted lines.

Fig. 2 is a transverse section on line 2—2 of Fig. 1.

Fig. 3 is a transverse section on line 3—3 of Fig. 1.

My improved projectile comprises a metal shaft 1 which preferably has a pointed or sharp tip 2. This shaft is secured in a body 3 of wood or fiber or material lighter than the shaft, the body 3 having opposed longitudinal grooves 4 in its sides.

The spindle 5, preferably of wood, is secured centrally in the rear end of the body and extends a substantial distance so that it may be grasped for throwing as is indicated in Fig. 1.

Feathers 6 are arranged with their shafts 7 in the longitudinal grooves 4, the forward end of the feather shafts being engaged under the staples 8. The shafts of the feathers are conventionally shown in cross section; that is, no attempt is made to show the structure thereof.

The feathers are further secured by means of the rubber or elastic band 9 which is slipped over the shafts of the feathers and engaged in the transverse grooves 10 at the end of the body member. This provides an effective means for securing the feathers and one that permits their being removed or replaced as occasion requires, and also the rubber band yields in the event the device

is stepped on or the like, reducing the likelihood of breaking the feathers.

The feathers are outwardly curved and are given a spiral pitch so that when the projectile is thrown into the air a rotary motion is imparted to the projectile, the feathers not only serving to steady the projectile but also imparting an attractive appearance to the projectile when it is in flight.

The feathers are preferably trimmed off on one edge which increases their spiral action; that is, it is much easier to position the same to secure the rotary action than when left in normal or natural condition with the filaments on both sides of the shaft of substantially the same length.

While the pointed shaft is desirable when used by adults or larger children, this might be objectionable for smaller children and in such case I make the shaft with a blunt or rounded tip as indicated by dotted lines at 11, Fig. 1.

My improved projectile may be thrown with considerable accuracy and provides a very interesting sport and one which encourages the development of skill.

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

1. In a projectile, the combination of a metal shaft, a body member on said shaft of a material lighter than the shaft and having opposed longitudinal grooves in its sides and a transverse groove in its rear end, a centrally disposed spindle projecting rearwardly from said body member and constituting a hand piece, a pair of outwardly curved feathers of substantial length disposed in a pitched relation to the plane of the spindle with their shafts in said longitudinal grooves, staples at the forward ends of said grooves adapted to receive the ends of the feather shafts, and an elastic band disposed in said transverse groove in the end of said body member to embrace the shafts of the said feathers.

2. In a projectile, the combination of a metal shaft, a body member on said shaft of a material lighter than the shaft and having opposed longitudinal grooves in its sides

and a transverse groove in its rear end, a centrally disposed spindle projecting rearwardly from said body member and constituting a hand piece, spirally pitched feathers disposed with their shafts in said longitudinal grooves, staples at the forward ends of said grooves adapted to receive the ends of the feather shafts, and an elastic band disposed in said transverse groove in the end of said body member to embrace the shafts of the said feathers.

3. In a projectile, the combination of a metal shaft, a body member on said shaft of a material lighter than the shaft and having opposed longitudinal grooves in its sides and a transverse groove in its rear end, a centrally disposed spindle projecting rearwardly from said body member and constituting a hand piece, feathers disposed with their shafts in said longitudinal grooves, staples at the forward ends of said grooves adapted to receive the ends of the feather shafts, and an elastic band disposed in said transverse groove in the end of said body member to embrace the shafts of the said feathers.

4. In a projectile, the combination of a metal shaft, a body member on said shaft of a material lighter than the shaft and having longitudinal grooves in its sides, a centrally disposed spindle projecting rearwardly from said body member and constituting a hand piece, feathers disposed with their shafts in said longitudinal grooves, staples at the forward ends of said grooves adapted to receive the ends of the feather shafts, and an elastic band disposed to embrace the shafts of the said feathers.

In witness whereof I have hereunto set my hand.

HARRY WAYTE.