PATENT SPECIFICATION

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Complete Left: Feb. 1, 1927.

Complete Accepted: June 23, 1927.

PROVISIONAL SPECIFICATION.

Improvements in Darts or like Missiles.

I, GEORGE EDWARD JONES, British subject, of 186, Usher Road, Bow, London, E. 3, do hereby declare the nature of this invention to be as follows:—

The present invention relates to improvements in darts or like missiles, and is well suited to toy darts or the like having paper or feather floats.

In particular, the present invention aims to provide a construction of dart or the like or dart tail by which the thrower may readily renew or change the floats as desired, and notably so when these are feather floats.

To this end, the present invention broadly consists in detachably securing the floats whether of feathers or paper by a split tubular tail or trailing end of the dart or like, adapted to grip flanges of the feather or paper floats.

In one constructional form under the present invention the tail or trailing end of the dart or like is constituted by or comprises an inner split tube and an outer slotted tube suitably connected together such as by end tongue and slot-engagement at the outer end and provided with a rimmed sliding ferrule at the inner end where the concentric tubes and the dart shaft are detachably conjoined such as by friction grip through the medium of the sliding ferrule, or by a cross-pin, or both, or otherwise.

The outer slotted tube is provided with a symmetrical triad of longitudinal slots under the edges of which flanges of the floats are passed so as to lie between the walls of the inner and outer tubes, these flanges being gripped between such walls when assemblage is completed.

The inner split tube normally tends to self-close, and the outer slotted tube normally tends to self-expand slightly.

The associated end of the dart shaft is tapered somewhat so that when the tubular tail is applied thereto and the ferrule drawn down over that end a tight friction grip is realised.

When the tubular tail is removed from the shaft after releasing the friction grip by sliding back the ferrule, the removal of the ferrule from the tubes allows the inner and outer tubes to contract and expand respectively to give sufficient clearance for removing and inserting the float flanges.

When the float is a feather one, the flanges are usually formed by appropriately cutting the quills; when a paper one, the flanges are usually formed by so shaping the blank as to provide for strips to be folded for this purpose.

Dated this 30th day of April, 1926.

HYDE & HEIDE,
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Patent Agents for the Applicant.

COMPLETE SPECIFICATION.

Improvements in Darts or like Missiles.

I, GEORGE EDWARD JONES, a British subject, of 186, Usher Road, Bow, London, E. 3, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

The present invention relates to improvements in darts or like missiles, and is well suited to toy darts or the like having paper or feather floats.

In particular, the present invention aims to provide a construction of dart or the like or dart tail by which the thrower may readily renew or change the floats as desired, and notably so when these are feather floats.

To this end, the present invention

broadly consists in detachably securing the floats whether of feathers or paper by a split tubular tail or trailing sheath or sleeve which can be slid on and off the trailing end of the dart or like, and when applied thereto is caused to grip flanges of the feather or paper floats between itself and an inner member.

A constructional form of the present invention is illustrated in the accompanying drawings in which:—

Fig. 1 is a perspective view of the split sheath or sleeve and associated parts assembled to receive the floats prior to attachment to the dart shaft, the ferrule *e* being removed while inserting the floats.

Fig. 2 is a perspective view of an inner tubular component, and Figs. 3, 4 and 5 are perspective, and top and under plan views respectively of the outer tubular component, while Fig. 6 is a perspective view of the ferrule, all these components being hereinafter referred to.

Figs. 7 and 8 are views of a paper float and Fig. 9 a view of a feather float. Fig. 10 shows all the components assembled in the form of a complete dart.

Referring to the drawings, the tail or trailing end of the dart or like is constituted by or comprises an inner split tube *a* and an outer slotted tube *b* suitably connected together such as by end tongue and slot-engagement *c*, *d*, at the outer end and provided with a rimmed sliding ferrule *e* at the inner end where the concentric tubes *a* and *b* and the dart shaft *f* are detachably conjoined such as by friction grip through the medium of the sliding ferrule *e*, or by a cross-pin, or both, or otherwise.

The outer slotted tube *b* is provided with a symmetrical triad of longitudinal slots *g* under the edges of which flanges *h* of the floats *i* are passed so as to lie between the walls of the inner and outer tubes *a* and *b*, these flanges *h* being gripped between such walls when assemblage is completed.

The inner split tube *a* normally tends to self-close, and the outer slotted tube *b* normally tends to self-expand slightly.

The associated end *j* of the dart shaft is tapered somewhat so that when the tubular tail is applied thereto and the ferrule *e* drawn down over that end a tight friction grip is realised.

When the tubular tail is removed from the shaft after releasing the friction grip by sliding back the ferrule *e*, the removal of the ferrule from the tubes allows the inner and outer tubes *a* and *b* to contract and expand respectively to give sufficient clearance for removing and inserting the float flanges *h*.

When the float *i* is a feather one as shown in Fig. 9, the flanges *h* are usually formed by appropriately cutting the quills; when a paper one as shown in Figs. 7 and 8, the flanges *h* are usually formed by so shaping the blank as to provide for strips *k* to be folded for this purpose.

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 a dart or like missile, a split tubular sheath or sleeve which can be slid on and off the trailing end of the dart or like and when applied thereto is caused to grip flanges of the floats between itself and an inner member so as to detachably secure the floats to the dart or the like.

2. A dart or like missile according to Claim 1 hereof having float securing means comprising concentric contracting and expanding tubes.

3. A dart or like missile as claimed in Claim 1 or Claim 2 hereof, having a sliding ferrule for producing a friction grip union with the dart shaft.

4. A dart or like missile as claimed in Claim 1, having a tail or trailing end comprising flanged floats, an outer multi-slotted tube and an inner split tube associated therewith so as to provide clearance for removing from or inserting the float flanges between the walls of the inner and outer tubes, and means for causing the flanges to be effectively gripped between such walls when assemblage of the dart is completed.

5. A dart or like missile as claimed in any of the preceding claims hereof having float securing means comprising a contracting inner split tube and an expanding outer multi-slotted tube, a sliding ferrule, the dart shaft having the associated end tapered somewhat and the ferrule and the tapered end of the dart shaft co-operating with the tubes to produce a friction grip of the float flanges and a friction grip union of the tail with the shaft.

6. A dart or like missile having float securing means substantially as described or shewn by the drawings.

Dated this 1st day of February, 1927.

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Fig.1.

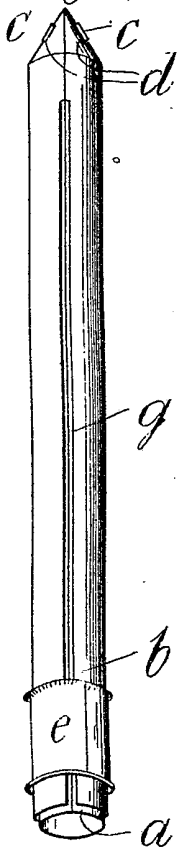


Fig.2.

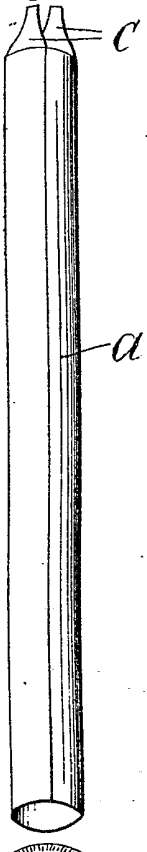


Fig.4.

Fig.3.

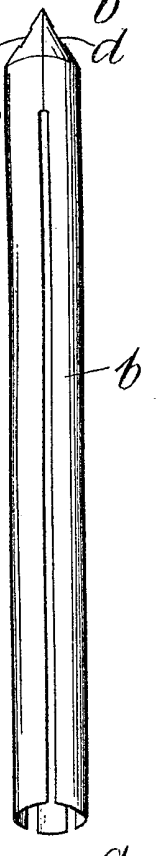


Fig.10.

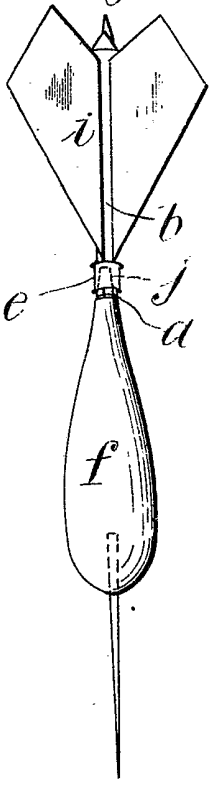


Fig.6.

Fig.5.

Fig.7.

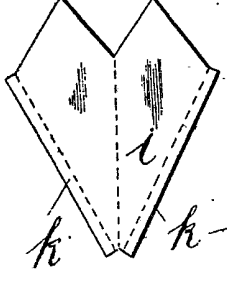


Fig.8.

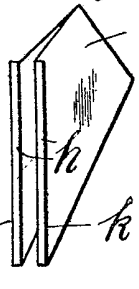
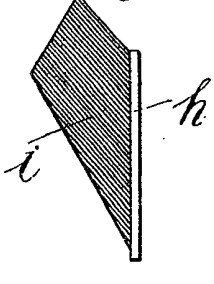


Fig.9.



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