Sept. 21, 1965 J. C. KALUZNY ETAL 3,207,516

FLYING TARGET

Filed July 6, 1962

Fig. 1.

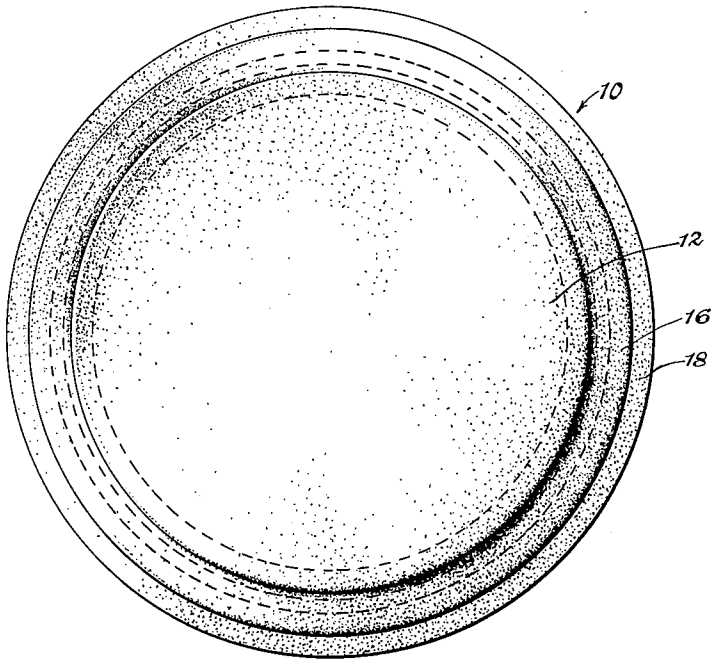
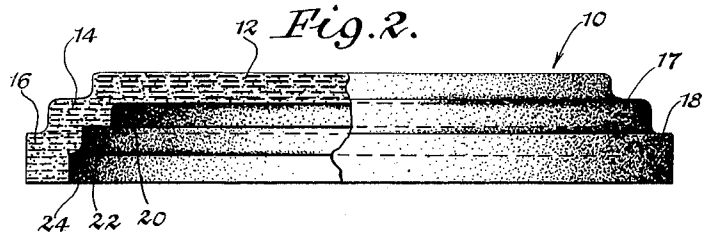


Fig. 2.



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FLYING TARGET

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5 Claims. (Cl. 273—105.4)

This invention relates to an article of manufacture and pertains more particularly to an improved trap shooting target and the like.

The present invention is directed to flying projectiles adapted to be treated as targets and pertains more particularly to a trap shooting target or the like which is made of ice. Certain beneficial advantages accrue from the construction according to the present invention among others of which are the advantages of economy of manufacture, latitude and choice of color, latitude in effect such as fluorescence, luminescence or phosphorescence, easy choice of size and shape without weight penalty and, by no means least, the absence from debris when such targets are utilized.

From the above, it will be readily apparent that when water is used as the raw material for manufacture of targets in accordance with the present invention, it becomes a relatively easy matter to incorporate water soluble dyes or other materials into the target so that any desired color or effect may be achieved without materially altering the method of manufacture or otherwise requiring drastic modifications either to the apparatus or method practiced.

Other objects and advantages of the invention will appear from the description hereinbelow and the accompanying drawings wherein:

FIG. 1 is a plan view of a target constructed in accordance with the present invention; and

FIG. 2 is a side elevational view partly broken away showing the target according to the present invention.

Referring now more particularly to the drawing, the target is indicated therein generally by the reference character **10** and will be seen to consist of a circular member of generally U-shaped configuration. The target is made of ice either from substantially naturally occurring water or water to which additives as hereinafter more particularly set forth have been added. Preferably, the target consists essentially of a generally circular and disc like central portion **12** and a series of annular portions **14** and **16** for example joined thereto to present on the outer surface of the target a series of steps such as those indicated by the reference characters **17** and **18** and to provide, in the interior of the target, a like stepped configuration as indicated by reference characters **20**, **22** and **24**. The stepped configuration provides a maximum of rigidity with a minimum of material and consequently a minimum of weight involved. Thus, the article can be designed to provide the requisite weight and still have sufficient rigidity as to withstand the launching forces involved in projecting such targets according to conventional practice. At the same time, the dished or generally hollow configuration of the target achieves a maximum of frangibility so that when struck by the shot or otherwise by the person seeking to destroy the target, the target will be prone to ready frangibility in such wise as will readily apprise the shooter of a hit, partial or otherwise. That is to say, when struck, the projectile will shatter and will seemingly "explode" to render a good visual indication of a hit upon the target. Thus, the target in accordance with the present invention will be equally as efficient as conventional targets such as are made of clay and will vie therewith in frangibility and visual indication of a strike or hit.

At the same time, it will be readily appreciated that the stepped configuration as aforesaid achieves a maximum of rigidity with a minimum of weight and, furthermore, permits the target to be made from relatively simple dies or molds as the case may be.

Furthermore, the provision of a flying target made of ice lends certain other aspects to its construction which would heretofore be unobtainable. For example, it is a relatively easy matter to provide any desired color of target as the occasion may demand, rendering the targets more or less visible as may be desired or required. Furthermore, it will be readily appreciated that by utilizing water as the basic raw material for the manufacture of the flying targets, it will also be a relatively easy matter to introduce into such water before it is frozen a quantity of luminescent, fluorescent or phosphorescent material, as desired, which will permeate the entire mass of the target and will in toto contribute to the coloration or effect achieved thereby due to the inherent transparency of the ice so that targets constructed in accordance with the present invention will be characterized by their greater adaptability to a variety of shooting conditions.

It is to be understood that certain changes and modifications as illustrated and described may be made without departing from the spirit of the invention or the scope of the following claims.

We claim:

1. A short-lined frangible target especially adapted for trap shooting, which comprises

a generally dish-shaped body formed of ice,

said body being of relatively thin section throughout so as to present a readily frangible member and including a disc-like central portion and a plurality of stepped, annular portions integrated therewith to form a ribbed, rigid structure capable of withstanding handling and launching and quickly susceptible to melting after launching when exposed to normal ambient temperatures.

2. A short-lined frangible target especially adapted for trap shooting, which comprises

a generally dish-shaped body formed of ice,

said body being of relatively thin section throughout so as to present a readily frangible member and including a disc-like central portion and a plurality of stepped, annular portions integrated therewith to form a ribbed, rigid structure capable of withstanding handling and launching and quickly susceptible to melting after launching when exposed to normal ambient temperatures,

the ice from which the target is formed containing a quantity of dye material to impart optically discernible properties thereto.

3. In the target according to claim **2** wherein said dye material is fluorescent.

4. A short-lined frangible target especially adapted for trap shooting, which comprises

a generally dish-shaped body formed of ice,

said body being of relatively thin section throughout so as to present a readily frangible member and including a disc-like central portion and a plurality of stepped, annular portions integrated therewith to form a ribbed, rigid structure capable of withstanding handling and launching and quickly susceptible to melting after launching when exposed to normal ambient temperatures, and

means dispersed within the ice from which the target is formed to render said target body clearly visible to a marksman when shot from a trap.

5. A short-lived frangible target for trap shooting comprising

a generally dish-shaped body formed of a solid substance which vaporizes at normal ambient temperatures and is free of any resinous binder,

said body being of relatively thin section throughout so as to present a readily frangible member and including a disc-like central portion and a plurality of stepped, annular portions integrated therewith to form a ribbed, rigid structure capable of withstanding handling and launching.

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EDWARD C. PINKHAM, *Primary Examiner.*

JOHN M. HORAN, *Examiner.*

UNITED STATES PATENT OFFICE

CERTIFICATE OF CORRECTION

Patent No. 3,207,516 September 21, 1965

John C. Kaluzny et al.

It is hereby certified that error appears in the above numbered patent requiring correction and that the said Letters Patent should read as corrected below.

Column 2, lines 32, 43 and 59, for "short-lined", each occurrence, read -- short-lived --.

Signed and sealed this 29th day of March 1966.

(SEAL)
Attest:

ERNEST W. SWIDER
Attesting Officer

EDWARD J. BRENNER
Commissioner of Patents