Aug. 22, 1961 A. GIULIANO 2,996,835

TOY TORPEDO BOAT

Filed Dec. 18, 1959 2 Sheets-Sheet 1

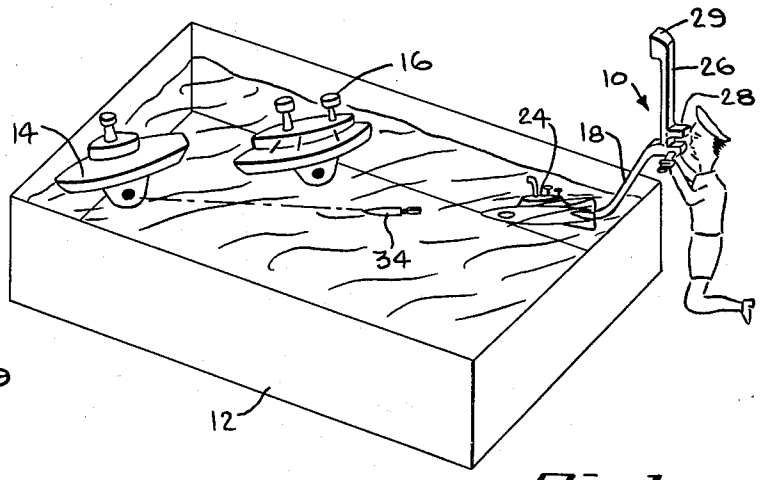


Fig 1

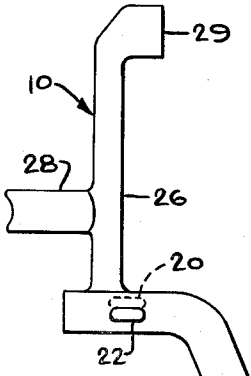
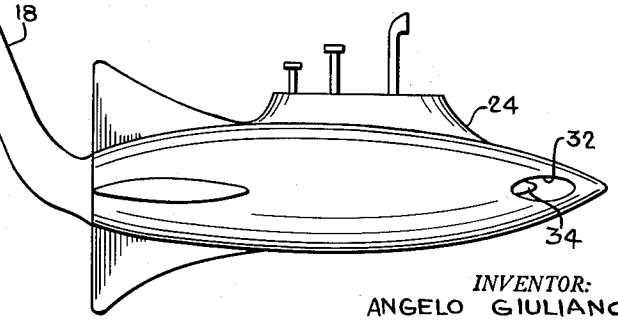


Fig 2



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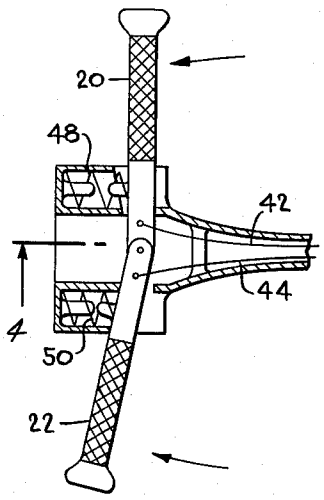
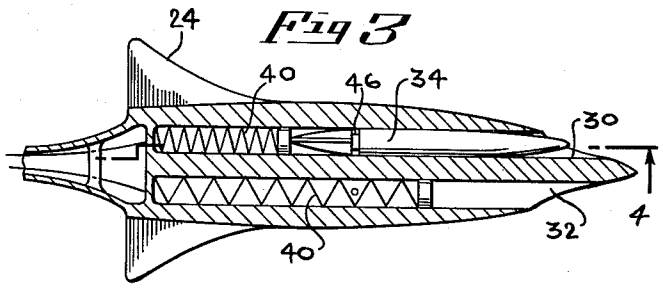


Fig 3



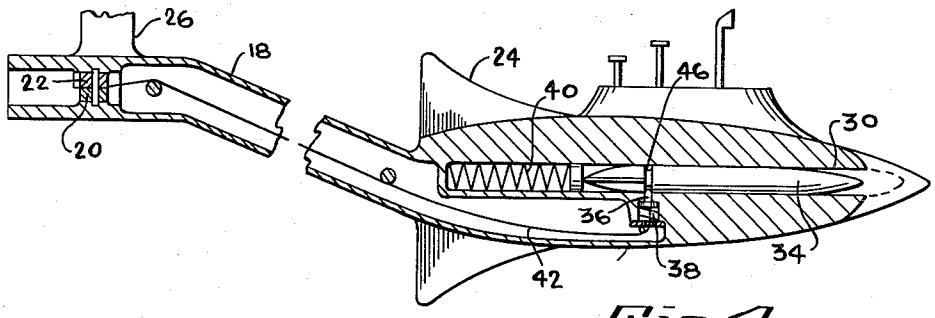


Fig 4

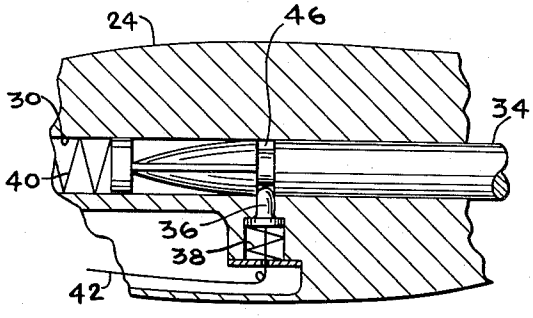


Fig 5

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TOY TORPEDO BOAT

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2 Claims. (Cl. 46—94)

The invention relates to amusement target striking devices, and relates more particularly to power propelled target striking devices.

It is among the principal objects of the invention to provide an amusement device for sighting, aiming, and propelling a torpedo, towards a target floating on the water in a tank.

With the above and other objects of the invention in view, the invention consists in the novel construction, arrangement and combination of various devices, elements and parts, as set forth in the claims hereof, one embodiment of the same being illustrated in the accompanying drawings and described in the specification.

The foregoing and other objects of the invention will be best understood from the following description of an exemplification thereof, reference being had to the accompanying drawings, wherein:

FIG. 1 is a perspective view of a tank arrangement in accordance with a preferred embodiment of the invention;

FIG. 2 is a large scale elevational view of the toy torpedo boat of FIG. 1;

FIG. 3 is a fragmentary plan view, partly in section, of the toy torpedo boat;

FIG. 4 is a fragmentary sectional view taken along the line 4—4 of FIG. 3; and

FIG. 5 is a fragmentary large scale sectional view similar to FIG. 4, showing but a detail thereof.

In carrying the invention into effect in one of the embodiments which has been selected for illustration in the accompanying drawings and for description in this specification, and referring now particularly to FIG. 1, a target striking unit **10** is adapted to be supported above and externally of a tank **12** that contains water. Targets such as an aircraft carrier **14** and a battleship **16** may be floating in the water of the tank **12**.

Referring to FIGS. 1 and 2, the target striking unit **10** may be hand supported. The striking unit **10** comprises a guide means such as a guiding rod **18**, to which there are attached release means such as two manual triggers **20** and **22**. To the rod **18** there is connected a vessel or toy torpedo boat **24**, which is movable and dirigible in the tank **12** by the rod **18**. The rod **18**, as best shown in FIG. 2, may be hollow. The toy torpedo boat **24**, has an elongated body, which is submerged under the water.

Near the free end, there is secured to the rod **18** a sighting means such as a periscope **26** which extends above the water. The periscope **26** has a lower occular piece **28** and an upper objective **29** for optically viewing the targets **14** and **16**. Since the periscope **26** is rigidly mounted on the rod **18**, and the rod **18** is secured to the vessel **24**, the vessel **24** may be directed by the operator holding the rod **18** as he sights the target **14** or **16** through the periscope **26**.

Referring to FIGS. 3, 4 and 5, the body of the toy torpedo boat **24**, defines receptacle means such as one or more receptacles or chambers such as two chambers **30** and **32** illustrated for exemplification, in each of which there is releasably stored a spring-biased projectile or torpedo **34**.

For each chamber **30** and **32** there are provided manually actuatable retaining means such as a latch **36** that is oppositely movable transversely of the longitudinal extension of the torpedo boat **24**. The latches **36** are biased to project normally towards the center of the

chambers by a spring **38**, and operate to retain the torpedo **34** in each chamber. The latches **36** are connected, through wires **42** and **44**, to the triggers **20** and **22**, respectively. The wires **42** and **44**, are threaded through the hollow interior of the rod **18**.

Each torpedo **34** is biased by a spring **40**. Each spring **40** urges its torpedo to exit from its chamber and, upon release by retraction of the latch **36**, propels the torpedo out of the chamber.

The operation of the invention is as follows:

The targets **14** and **16** are placed in the tank **12** to float in the water of the tank. A torpedo **34** is placed in each of the chambers **30** and **32** by forcing it thereinto against the power of the spring **40**. During this insertion, the rear end portion of the torpedo **34**, which slopes radially inwardly towards the center of the torpedo, slides along its latch **36**. The latch **36**, which is biased to project towards the center of the chamber by the spring **38**, is pushed radially outwardly until it is pushed by its spring **38** into a notch **46** that is cut in the periphery of the torpedo **34**, thereby latching the torpedo **34** releasably in its chamber.

The fire the torpedo **34**, the operator (who will in most instances, be an infant) then grasps the two triggers **20** and **22**, one in each hand, and at the same time looks through the occular piece **28** of the periscope **26** to sight either target **14** or **16**. Since the periscope **26** and the body of the torpedo boat **24** are rigidly inter-connected, as the child rotates the periscope **26**, to sight the target, he also guides the torpedo boat **24** into the direction of alignment with the target.

The two triggers are spring loaded by springs **48** and **50**, respectively, to keep the torpedo release wires **42** and **44**, always under a slight tension.

When the child sees a target in the periscope **26**, he may pull either one or both of the triggers.

The pulling force exerted on a trigger against the force of its spring **48** or **50**, will be transmitted to the respective latch **36** by the respective wire **42** or **44**, retracting the latch out of the notch **46** of the torpedo **34**. Thereby, the torpedo **34** will be released to be propelled by the spring **40** out of its chamber. As the vessel **24** at this instant, owing to the preceding sighting, points towards the selected target, the torpedo **34** will be propelled towards that target.

I wish it to be understood that I do not desire to be limited to the exact details of construction shown and described, for obvious modifications will occur to a person skilled in the art.

Having thus described the invention, what I claim as new and desire to be secured by Letters Patent is as follows:

1. A target striking device comprising a tank containing water, a target floating in the water of said tank reaching above and below the water level, a vessel movably disposed in said tank below the water level and including receptacle means releasably storing at least one projectile, means propelling said projectile upon release, guide means secured to said vessel and reaching above the level of the water and being manually operable for positioning said vessel, sighting means secured to said guide means and disposed above said water level and operative for optically viewing the position of the target disposed above the water level to determine and to adjust manually the striking position of said vessel, whereby said vessel upon viewing through said sighting means may be positioned by said guide means preparatory to projectile release towards the underwater position of said target, and release means supported by said guide means and connected to said receptacle means and manually actuatable to release said projectile.

2. A toy torpedo boat, adapted to be submerged under

water, comprising an elongated body defining a pair of chambers releasably storing torpedoes, a spring disposed in each chamber and operable to bias a projectile for propulsion out of said chamber, a releasable retaining device for each chamber operative against the force of said spring for retaining said torpedo in said chamber, two manual triggers each operative to release a retaining device, and a periscope connected to said body extending to a point above the water level and operative for sighting at a predetermined target for subsequently manually aligning said body on said target, whereby said projectile when released thereafter by actuation of said trigger will be propelled by said spring out of said chamber towards

the target, said releasable retaining device including a movable latch releasably locking each projectile, and a release wire connected to each trigger and operable to transfer the movement of said trigger to a latch to unlock the projectile.

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