May 17, 1932. T. S. LEWIS 1,859,100

EXPLOSIVE TOY

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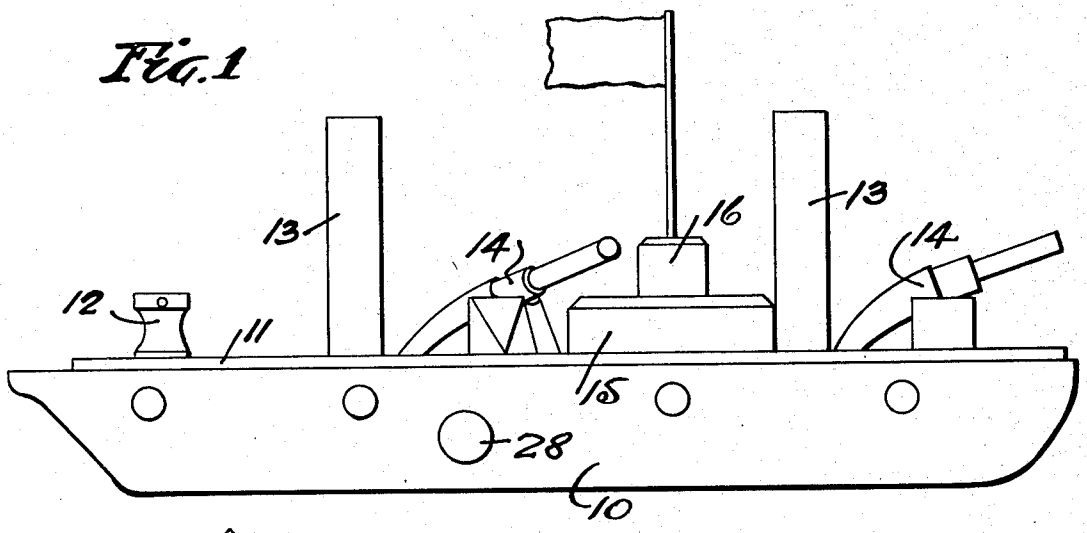
Fig. 1



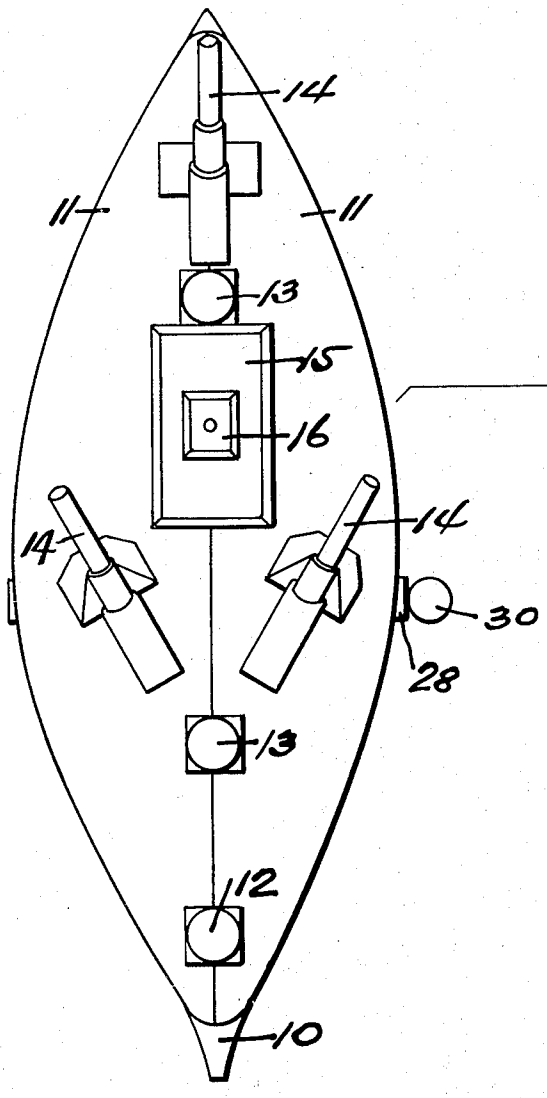


Fig. 2

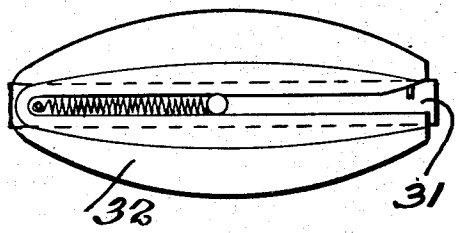


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Fig. 3

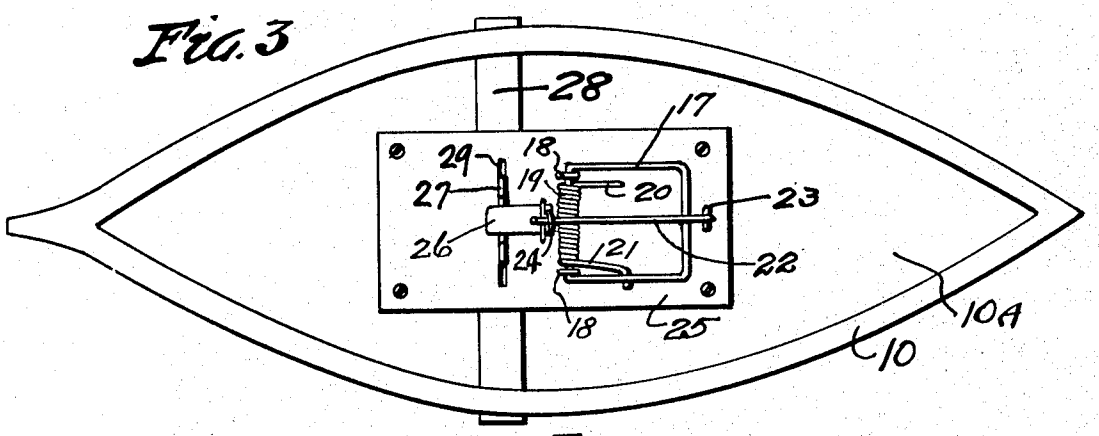


Fig. 4

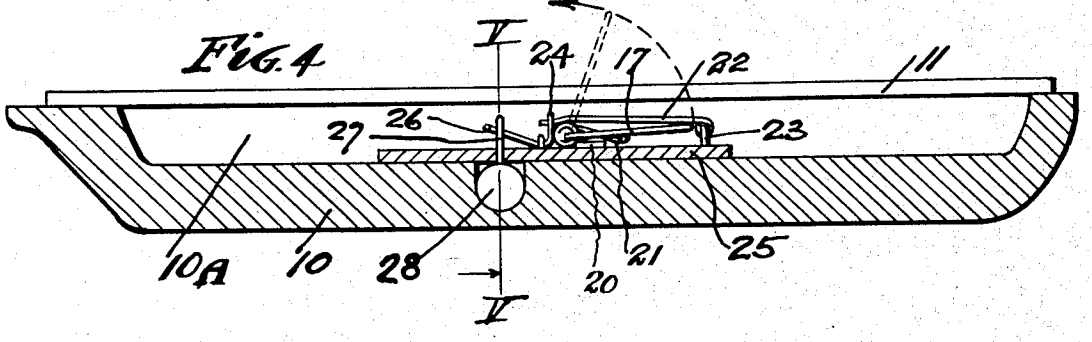
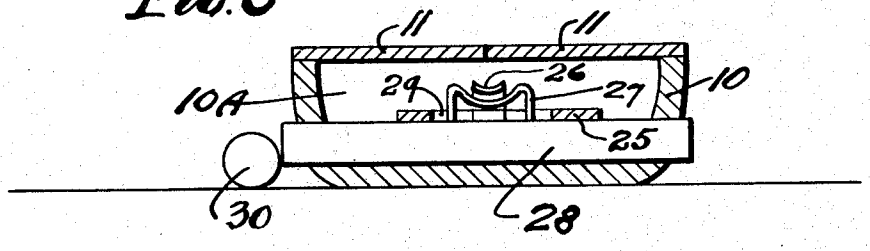


Fig. 5



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UNITED STATES PATENT OFFICE

THOMAS S. LEWIS, OF MEMPHIS, TENNESSEE

EXPLOSIVE TOY

Application filed February 26, 1931. Serial No. 518,441.

This invention relates to toys which fly to pieces as from an internal explosion, and to mechanical means for producing such explosive effect.

Preferably the toy is made with the general conformation of a battle ship with guns and boat parts mounted on the deck thereof.

The objects of the invention are to provide a toy composed of separable parts, and to provide means for violently separating this structure into its component parts whereby the effect of an internal explosition is simulated.

The means by which the foregoing and other objects are accomplished and the manner of their accomplishment will readily be understood from the following specification on reference to the accompanying drawings, in which:—

Fig. 1 is a side view of the toy in the form of a boat hull with various parts and accessories mounted thereon;

Fig. 2 is a plan view of the same structure showing an associated device in the general configuration of a torpedo boat for actuating the plunger which releases the explosive mechanism;

Fig. 3 is a plan of the device with the cover removed;

Fig. 4 is a sectional elevation taken on the line IV—IV of Fig. 3; and

Fig. 5 is a transverse section taken on the line V—V of Fig. 4.

Referring now to the drawings in which the various parts are indicated by numerals and confining the description to the toy in boat form, 10 is a boat hull, the interior of which is hollowed out to form a chamber 10—A (Figs. 3, 4 and 5) to receive the explosive mechanism. 11 is the deck composed of two similar flat pieces which are loosely laid on top of the hull, abutting along the longitudinal center line and having their peripheral edges shaped to conform to the general contour of the hull. Loosely placed on the deck are a number of objects 12, 13, 14, 15 and 16 simulating respectively a capstan, smokestacks, guns, a deck cabin, and pilot house with flag-staff and flag integral with the projecting upward therefrom.

Disposed within the hollowed out hull and beneath the deck is a striker 17, preferably a rectangular loop of wire hingedly secured as by staples 18, and adapted to be swung from a horizontal position upward about the hinge loops 18 as a center, substantially along the path indicated by the arrow in Fig. 4, by a coiled spring 19, which has one leg 20 bearing against the bottom of the chamber, and the other leg 21 engaging under a leg of the wire loop 17. This striker is held in retracted position by a retaining rod or wire 22, having one end hinged to the chamber bottom by a staple 23, and the other end held by a releasable trigger 24. Preferably this portion of the device is an ordinary well known form of mouse trap, and is preferably purchased in the open market. In such case the parts described are mounted on a base 25 and this base with the associated parts is secured to the bottom of the chamber. The trigger 24 has a projecting part 26 ordinarily used for the reception of bait in a mouse trap and this part is disposed in the path of a trigger actuating member or trip 27 which trip projects from and is carried by a horizontally disposed plunger 28 slidably mounted in a transverse groove in the chamber bottom and which plunger has one or both ends projecting beyond the sides of the hull. The top of the plunger 28, is substantially level with or slightly below the bottom of the chamber 10—A and the base 25 extends over the plunger retaining it in the groove. 29 is a transverse slot in the base 25 through which the trip 27 extends upward from the plunger this slot maintaining the release member in upright position, and guiding and limiting its movement, thereby also limiting the movement of the plunger.

The plunger 28 may be actuated from either side of the hull by pressure on the end thereof, and is preferably actuated by a ball 30 propelled thereagainst in any desired manner, as for instance by a spring actuated plunger 31 mounted in an auxiliary device 32, preferably simulating a torpedo boat.

In using the device the striker 17 is retracted against the pressure of the spring 19 and retained in such position by the re-

taining rod 22 which in turn is engaged with the trigger 24 in the manner common in mouse trap practice, the plunger 28 being centrally positioned in order to permit such engagement of the trigger and retaining rod. The two parts of the deck 11 are then laid on the hull and the various objects before described are positioned on the deck. The torpedo boat may then be moved to a more or less remote position relative to either side of the boat and be pointed at the end of the plunger and the ball be discharged against such plunger end to release the trigger mechanism. On such release the striker flies upward thereby throwing the deck upward and scattering the objects loosely mounted thereon in various directions and causing the appearance and effect of an internal explosion. After each explosion, the striker may be reset, the parts be collected and assembled, and the procedure repeated as desired.

It will of course be understood that the details here shown are for purposes of illustration only, and that I do not intend to limit myself to such detail except where in any claim it may be specifically set out.

Having described my invention, what I claim is:—

1. An explosive toy, comprising a hollow structure having a cover loosely laid thereon, and objects dispersably positioned on said cover, a striker hinged within said hollow structure and adapted to be swung upward about said hinge against said cover, a retractable spring urging said striker toward said cover, means for holding said striker in retracted position, a trigger engageable with said holding means to secure same in holding position, a plunger shiftably mounted within said hollow structure and having its ends projecting therewithout, a double acting cam carried by and projecting upward from said plunger into the path of said trigger, said cam being adapted to trip said trigger on movement in either direction, and guide members disposed on either side of said cam, slidably holding said plunger and cam thereon in position.

2. An explosive toy, comprising a hollow structure having a cover loosely laid thereon, and objects dispersably positioned on said cover, a striker hinged within said hollow member and adapted to be swung upward about said hinge against said cover, a retractable spring urging said striker violently against said cover, means for holding said striker in retracted position, a trigger releasably engaging said holding means, a longitudinally slidable plunger mounted within said structure and having its ends projecting therebeyond, the bottom of said structure, therewithin, being transversely channelled to receive said plunger and the side walls of said structure apertured to permit projection of said plunger, a double acting cam carried by said plunger for tripping said trigger on movement of said cam in either direction and guides for said cam lying along opposite sides thereof and slidably securing said plunger in said groove.

In testimony whereof I hereunto affix my signature.

THOMAS S. LEWIS.