Aug. 16, 1927. 1,639,550

F. C. BENDER

TOY

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Fig. 1.

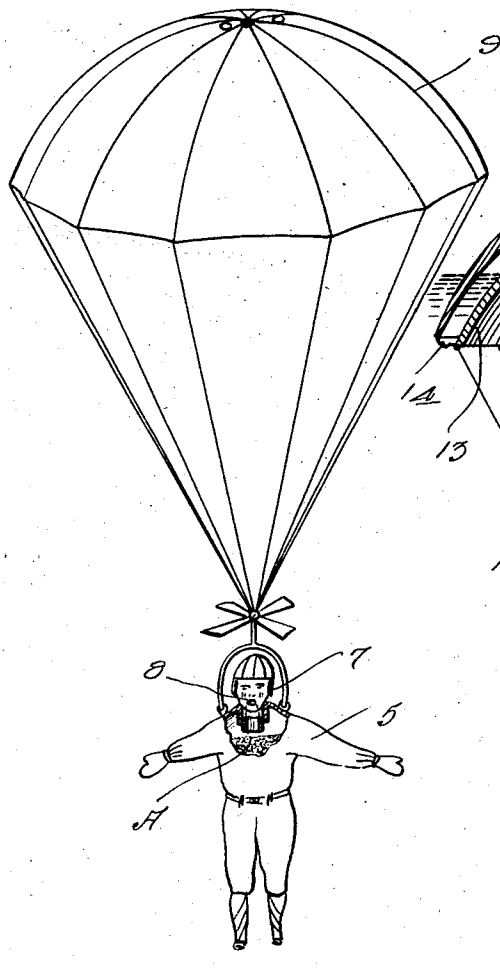
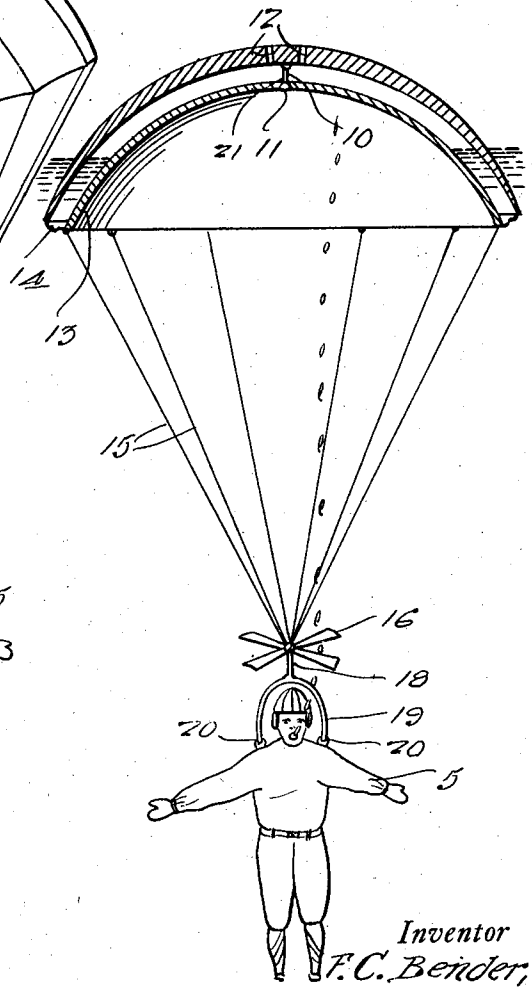


Fig. 2.



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UNITED STATES PATENT OFFICE.

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TOY.

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This invention relates broadly to toys and has more particular reference to an amusement device that is adapted to be employed within a body of water, the same being so constructed as to automatically raise and lower itself within the water and to simulate the action of a parachute jumper during such movement.

Other objects will become apparent as the nature of the invention will be better understood, the same comprising the novel form, combination and arrangement of parts hereinafter more fully described, shown in the accompanying drawings and claimed.

In the drawings wherein there is disclosed several forms of the present invention:

Figure 1 is an elevation partly in cross section of one form of the present toy.

Figure 2 is a section therethrough showing the toy as actually in use.

First having reference to Figures 1 and 2 my novel toy constitutes the provision of a hollow figure 5, of metal or other similar weighted material, the arms of which are extended as clearly shown. At the upper end of this figure is an opening 6 in order that gas forming material A may be deposited therein, said opening adapted to receive a closure plug 7 which is in the form of a headed neck for the figure, the mouth thereof being open as at 8 in order that water may pass into the body and also in order that the gas generated therein may escape.

This form of the toy further constitutes the provision of a substantially semi-spherical shaped plate 9 that simulates a parachute when the same is open, the same being formed centrally upon its under side with a pendent pin 10, the lower end of which is headed as to provide a valve member 11, said plate being provided with gas discharge openings 12—12 at opposite sides of said pin.

Said semi-spherical shaped plate 9 is of floating material such as wood or cork and arranged therein is a similar shaped plate 13 of non-floating material, preferably tin or other cheap metal, the edges of said plate being interconnected through the medium of links or lengths of cord 14 for preventing the separation of said plates.

Extending downwardly from the edge of either or both of said plates or strings 15 which are brought together at their ends for swivel connection in any desired manner to a small fan like propeller 16 that is attached to the upper end of a pin 18 that is formed upon the bight portion of an inverted U-shaped bail 19, the ends of which are hooked for engagement within eyelets 20 upon the shoulders of the figure 5.

The center of the interior semispherical plate 15 is provided with a valve seat shaped opening 21 within which the valve head 11 of the pin 10 carried by the outer plate 9 normally engages.

In use the toy is dropped into a body of water, and immediately begins to slowly descend due to the weighted figure 5 and interior weighted plate 13. The water will gradually enter the opening 8 in the figure head 5 causing the material A to generate gas which will subsequently escape from the opening and pass upwardly beneath the bottom plate 13 and after a sufficient amount of the same has been trapped therebeneath, the toy will begin to slowly rise. After the outer floating plate 9 projects a certain degree out of the water, the weight thereof will cause the valve 11 to open permitting the gas to escape through the opening in the plate and to the atmosphere through the opening 12 in the outermost plate. The operation of the toy will then repeat itself and continue to do so as long as the material A within the body 5 is active.

Through reason of a swivel connection, of any desirable form, between the ends of the strings 15 and the fan 16 to which the figure 5 is attached, said figure will be caused to rotate during its raising and lowering within the water.

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

In a toy of the class described, a semi-spherical tapered plate of buoyant material with its convex side disposed upwardly and provided with openings, a semi-spherical shaped plate of non-buoyant material, smaller than the first plate, disposed within the first plate, with its convex side upwardly, flexible means at the edges of the plate to limit the separation of one from the other, a pin depending downwardly from the center of the buoyant plate and piercing an opening in the center of the non-buoyant plate, said pin having a valve head at its bottom end for closing the opening in the non-buoyant plate, a gas producing

means disposed beneath the plate, and means for suspending said gas producing means from the non-buoyant plate whereby when the toy is submerged in a body of water, the buoyant plate will maintain the valve closed so that gas escaping from the gas producing means will be trapped within the non-buoyant plate and when sufficient gas has collected in the non-buoyant plate to cause the same to rise to expose a portion of the buoyant plate above the surface of the water said buoyant plate will remain stationary while the non-buoyant plate continues to rise so that gas may escape through the opening and out to the atmosphere through openings provided in the buoyant plate.

In testimony whereof I affix my signature.

FREDERICK C. BENDER.