

Aug. 1, 1944.

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2,354,754

ANTI-AIRCRAFT DEVICE

Filed April 13, 1942

Fig. 1

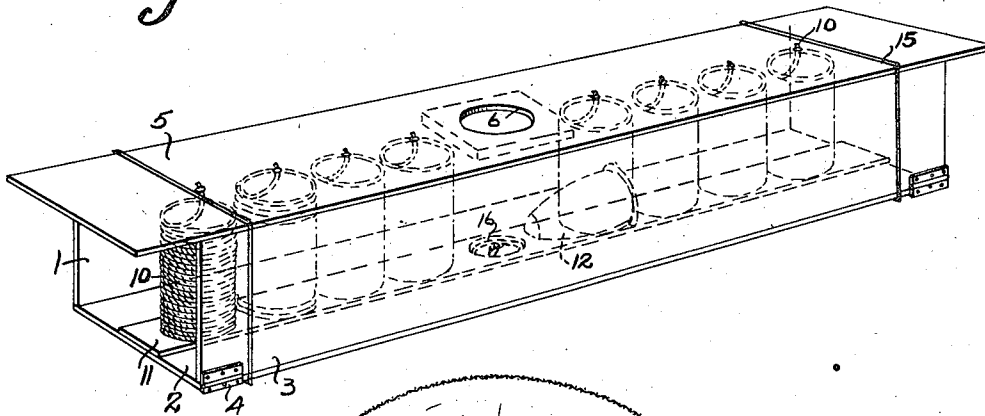
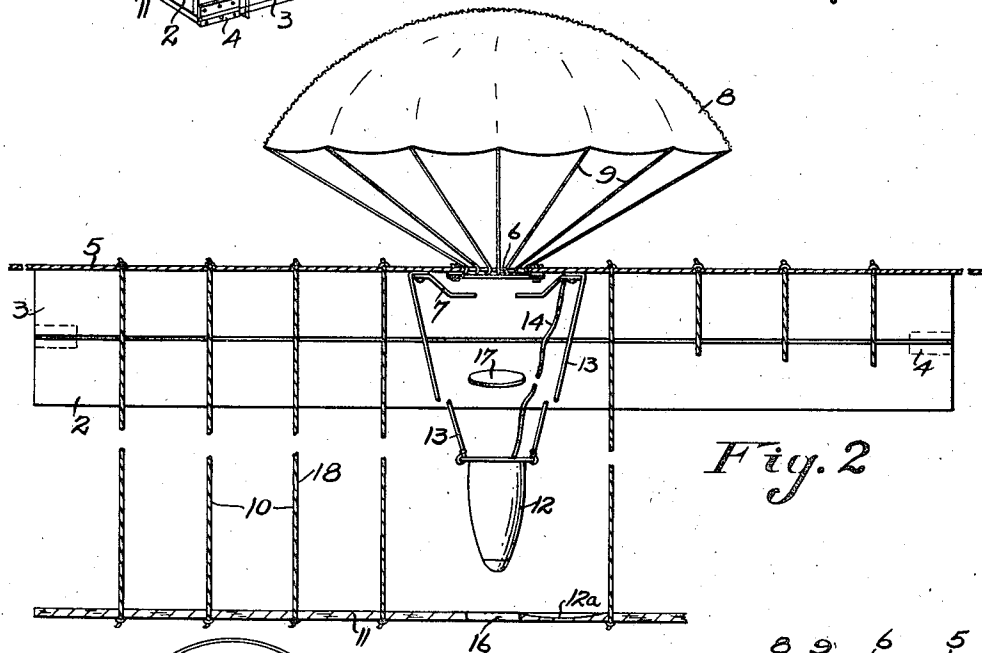


Fig. 2

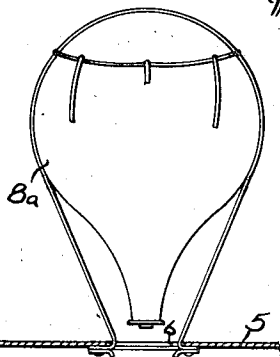


Fig. 3

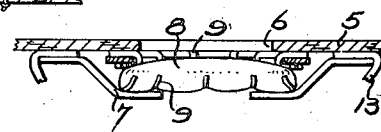


Fig. 4

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2,354,754

ANTI-AIRCRAFT DEVICE

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Application April 13, 1942, Serial No. 438,670

6 Claims. (Cl. 89-1)

The invention relates to improvements in anti-aircraft devices, and refers to a device a number of which may be discharged over or adjacent an enemy airfield, or other desired location, primarily to create a serious hazard for pursuing airplanes.

It is an object of the invention to provide an anti-aircraft device, which, when in use, floats in the air and covers a relatively large substantially vertical area, and is provided with explosive means so that any aircraft which becomes entangled therein is destroyed. Further the device is so constructed that if it is either shot down or gradually sinks to earth it will cause destruction.

Another object of the invention is to provide such a device including a container so constructed that a number of the latter may be easily packed, one upon the other if desired, in a suitable storage compartment in an airplane and readily discharged therefrom. Moreover the container, which includes a rigid carrier forming one wall thereof, is so constructed that it opens immediately it is discharged whereupon a support means, such as a parachute or balloon, maintains the carrier in the air, and ropes packed in the container and each secured at one extremity to the carrier drop, and are held spaced at their lower extremities by a rigid cross member to form a trap of material height and width.

Another object of the invention is to provide such an anti-aircraft device which includes a container in the form of an inverted box with a lid at the bottom which moves downward to drop the contents including the ropes and cross member, and a bomb supported upon the latter prior to the opening of the container. This bomb is also dependently attached to the carrier to drop into position above the cross member when the latter falls to its trap forming position, to insure discharge of the bomb upon entanglement of an airplane or other object with the trap, and at the same time to prevent accidental discharge of the bomb by the cross member as the latter swings in the air.

A further object of the invention is to provide such an anti-aircraft device wherein the carrier is apertured so that a parachute in the container beneath the aperture will be blown therethrough and opened immediately the container is discharged from an aircraft. Thus the arrangement of the parachute actually within the container facilitates the packing and handling of the devices.

Yet another object of the invention is to provide an anti-aircraft device which is light in weight, cheap and easy to manufacture, and easy to

transport in quantity in an aircraft and to discharge therefrom either one or several at a time.

Having broadly stated some of the objects and advantages of the invention I will now proceed to describe it in detail with the aid of the accompanying drawing, in which:

Figure 1 illustrates a perspective view of the invention when packed for transport.

Figure 2 is a front elevation of the invention after the container has opened and the various parts have assumed their respective floating positions.

Figure 3 is a detail showing a modification.

Figure 4 is an enlarged detail showing the parachute packed within the container.

Referring to the drawing, 1 designates a container which is preferably open-ended, and is so constructed that the contents may be dropped therefrom. To accomplish this the bottom 2 is in this instance attached to one of the sides 3 by hinges 4 so that the bottom may drop into the position shown in Figure 2. The container top 5, which preferably projects beyond the sides 3 and bottom 2 at opposite ends, constitutes a carrier and has a substantially central aperture 6 formed therethrough. Secured to the underside of the top or carrier 5 is an annular rest 7 which is positioned beneath the aperture to support a parachute 8 the cords 9 of which are secured to the said carrier. Dependently secured to the top or carrier 5 are a plurality of ropes 10 attached at their lower extremities to a rigid cross member 11. When the device is being transported the cross member 11 rests upon the bottom 2 of the container as shown in Figure 1, and the ropes 10 are coiled and also rest upon the said member. In the latter a pocket 12a is formed to receive a bomb 12 when the container is closed. Cords 13 secured to the carrier 5 are also fastened to the bomb and 14 denotes a fuse cord, longer than the cords 13 which is attached at one extremity to the carrier 5 and at its other extremity to a fuse mechanism (not shown) in the said bomb. Suitable means, such as encircling ties 15 are provided for holding the container shut and preventing the bottom 2 from opening and dropping the cross member 11, the ropes 10 and the bomb 12.

Prior to the discharge of a container into the air the ties 15 are cut, then the projecting extremities of the carrier tend to hold the latter in its correct position in the air. The parachute 8 is blown through the aperture 6 both by air entering the open ends of the container and also by air flowing in from the underside as the bottom 2 naturally drops immediately about the hinges 4.

In order to further expedite the discharge and opening of the parachute openings 16 and 17 may be formed through the cross member 11 and bottom 2 respectively immediately beneath the aperture 6 to provide a further air stream to act upon the said parachute.

When the bottom 2 drops into its position shown in Figure 2 the carrier 5, supported by the parachute 8, and the ropes 10 and cross member 11, which have dropped to their respective positions shown, form a trap 18. Incidentally it may be noted that the bomb 12, supported by the cords 13, which are appreciably shorter than the ropes 10, is positioned well above the cross member 11 so that when the latter swings in the air it will not be liable to strike and explode the bomb.

Due to the fact that long ropes when coiled may be packed in a small space the containers may be made both narrow in width and shallow in height and at the same time contain sufficient rope to permit the formation of traps 18 of considerable height. Moreover it is possible in most aircraft to carry a large number of containers of sufficient length to provide traps of satisfactory width.

From the foregoing it will be clearly seen that if an aircraft or other object were to become entangled in such a trap floating in the air it would be quickly destroyed by the bomb 12.

In Figure 3 the modification shows a balloon 8a substituted for the parachute. In such case it is necessary of course to inflate the balloon prior to discharging the container from an aircraft.

While in the foregoing the preferred embodiments of the invention have been described and shown, it is understood that further alterations and modifications may be made thereto provided the said alterations and modifications fall within the scope of the appended claims.

What I claim is:

1. An anti-aircraft device comprising a container including a rigid carrier and a bottom adapted to open, means connected to the carrier for supporting the latter in the air and adapted to be discharged to its operative position upon the opening of said bottom, a rigid member and a plurality of ropes packed in the container, each rope being secured at one extremity to said carrier and at its other extremity to said rigid member, said member and ropes being adapted to drop and hang suspended from the carrier upon the opening of said bottom to form a trap, and a bomb carried in the latter.

2. An anti-aircraft device comprising a container including a rigid apertured carrier and a

bottom adapted to open, means connected to the carrier for supporting the latter floatingly in the air and adapted to be discharged to its operative position through said aperture when the bottom opens, a plurality of ropes packed in the carrier each having one extremity attached to the latter, a rigid member packed in the carrier to which the other extremities of said ropes are secured, said ropes and member being adapted to drop from the carrier and hang suspended from the latter to form an aerial trap upon the opening of said bottom, and a bomb arranged for suspension in said trap.

3. An anti-aircraft device comprising a container including a rigid, apertured carrier forming the top thereof and a bottom adapted to open, a parachute packed in the container beneath the aperture, cords from the parachute secured to said carrier, said parachute being adapted to be blown through the aperture and to open and floatingly support the carrier, a plurality of ropes each having one extremity secured to the carrier, a cross piece in the container secured to the opposite extremities of the ropes whereby when the container bottom opens the ropes and cross piece drop to form with the carrier a trap of considerable width and height, and a bomb carried by the trap.

4. An anti-aircraft device comprising a container including a rigid carrier forming one wall thereof, an openable bottom in said container, a rigid cross member resting upon said bottom, a plurality of ropes in the container each having one extremity secured to the carrier and its other extremity attached to said member, a bomb resting upon the latter, cords securing the bomb to the carrier, said ropes and member being adapted to drop out of the container and with the carrier to form a trap, said bomb being adapted to be held suspended by its cords between the carrier and the cross member, and a support means attached to the carrier to floatingly maintain the latter in the air.

5. An anti-aircraft device comprising the combination set forth in claim 4, wherein the carrier forms the top of the container and the ends of the carrier project beyond the sides and bottom of the container.

6. An anti-aircraft device comprising the combination set forth in claim 4, wherein the container is open-ended, the carrier forms the top of the container and is apertured, a rest beneath the carrier, and the support means consisting of a parachute upon the rest adapted to be blown through the aperture and opened.

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